



The Potential Impact of Utilising Social Media Platforms in Saudi Higher Education: Academic Practitioners Perception

A dissertation submitted for the degree of Doctor of Philosophy in Education

Osama A Bugulah

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ABSTRACT

The use of social media has penetrated the field of education during the past decade, but it is still not widely accepted or used to support teaching and learning despite their potential usefulness. However, since the start of the Coronavirus pandemic, SM have gained momentum as face-to-face teaching and learning came to a halt due to the severity of this infectious virus and due to the ways Covid spreads between people. In Saudi higher education, the usefulness of SM in education has also a situation of mixed perceptions and experiences that needs scrutiny. This study was, therefore, conducted to investigate the perceptions of lecturers, academic leaders, and students on the use of social media technologies at Taibah University in Madinah, Saudi Arabia. The methodology of Qualitative Content Analysis was applied in the study through an inductive approach to analyse qualitative data collected on their perceptions of the potential impact of utilising social media at the selected institution. Data were collected from conducting individual interviews with 21 lecturers, seven academic leaders, and four focus-group sessions with 25 students of both genders, and thematically analysed by categorisation and coding. This led to identifying five overarching areas of insight: general social media use, benefits of social media in education, motivation, and encouragement to use social media for lecturers and students, and challenges in applying social media in education. Several key findings confirmed previous findings by other researchers, although some contradictory findings were also obtained; points of tension were found related to the factors of age, gender, time and control, and numerous new findings emerged from the data which provided insight into the investigated phenomenon for the specific case. Based on the outcomes of the study, several recommendations are made to support the promotion of social media platforms and technologies in Saudi higher education.

DEDICATION

This thesis is dedicated firstly to the soul of my beloved father who sadly is no longer with us. He supported me academically and emotionally throughout my life. Secondly, it is dedicated to my dear mother who has been praying for me tearfully, which gave me the strength, patience, and persistence to cope with the pressure through to completing my research. Additionally, I dedicate this thesis to my dearest wife for her immense patience, and her numerous sacrifices throughout my academic career, and to my beautiful and precious children Hasan, Judy, Majed and Ahmed, who provided great comfort in times of distress. Finally, this thesis is also dedicated to my father-in-law, Professor Ali Abughararah, for his support, advice, and encouragement throughout the period of my study, and to my brothers and sisters for their prayers and well-wishes.

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ABBREVIATIONS

ALM	Audio-Lingual Method
CHERS	Centre for Higher Education Research (KSA)
CMS	Content Management System
CoI	Community of Inquiry
C-TAM-TPB	Combined TAM and TPB
DTPB	Decomposed Theory of Planned Behaviour
EFL	English as a Foreign Language
F2F	Face-to-Face
GDPR	General Data Policy Regulations
GPA	Grade Point Average
HE	Higher Education
ICT	Information and Communication Technology
IDT	Innovation Diffusion Theory
LMS	Learning Management System
LR	Literature Review
LUVLE	Lancaster University Virtual Learning Environment
MBA	Master's in Business Administration
MKO	More Knowledgeable Others
MoE	Ministry of Education (Saudi Arabia)
MoHE	Ministry of Higher Education (Saudi Arabia)
MOOC	Massive Open Online Course
NCAAA	National Commission for Academic Accreditation and Assessment (KSA)
NCHAE	National Centre for Assessment in Higher Education (KSA)
NTP	National Transformation Programme (KSA)
OSN	Online Social Networking
PSMU	Problematic Social Media Use
RSS	Really Simple Syndication
SM	Social Media
SMP	Social Media Platform
SMS	Short Message Service
SNS	Social Networking Sites

TRD	Triadic Reciprocal Determinism
UGC	User Generated Content
UNESCWA	United Nations Economic and Social Commission for Western Asia
VLE	Virtual Learning Environment
WWW	World Wide Web

CHAPTER 1: Introduction

1.1 Overview

This chapter introduces the research work and provides a detailed overview of the research. It presents the background to the research, the rationale for it, the research problem, aim and objectives, followed by an explanation of the research context and finally outlines the structure of the thesis.

1.2 Research Background

The 21st century has been marked by technology, knowledge, and a generation of people more affected by knowledge and technology compared with previous generations. The challenge and continuing concern to educators is how to adopt and utilise technology and how to ensure that education institutions keep up to date with the progressive, continuous, and consistent development of technology in such a way as to improve teaching and learning, with an expectation that this greater use of technology will improve, for example, the academic performance. One focus of attention is the use of ICT in teaching and learning. Researchers have identified several potential advantages of ICT, such as eliminating time barriers in education for students and lecturers, removing geographical barriers for students to access knowledge resources from various locations (Mooij, 2007), allowing the use of new methods of education, for instance e-learning (Sanyal, 2001), and permitting education at convenient times (UNESCO, 2002). The current number of available devices for educational institutions is significantly higher than any other time in history which is a direct result of the wide range of ICT types available. Educational institutions are now increasingly expected by governments, educationists, and students to integrate and make effective use of ICT in their teaching programmes.

Social media technologies have expanded remarkably, and their usage has increased (Lenhart et al., 2010). According to the Pew Research Centre (2015), 74% of the Internet users use social networking sites (SNSs) worldwide. This number jumps to 89% when looking at 18–29-year-olds, encompassing those of typical college age. Also, in the last ten years, the public use of social media has increased significantly worldwide from 0.97 billion in 2010 to 2.77 billion in 2019 (Statista, 2019). Moreover, social networking media is one of the main modern communications means that have revolutionised communications among people. Its usage spreads to various areas such as social, political, and cultural activities. Social networking software preceded the development of social

media, but it has been classified as Web 2.0 technologies. Using social networking software enables the users to be more active by using the prepared content and interactive media within these applications that are produced by the users and shared with others (Millan & Bromage, 2011). This has led to enhancing the exchange of published information on social networking websites.

Social media technologies have become an essential part of modern human society, such that educators of various ages from across the globe and from different institutions and disciplines employ social media for professional use, personal use and for coursework (Schmucki et al., 2009; Taves et al., 2011; Seaman & Tinti-Kane, 2013). They have become an imperative part of people's lives because people generate content for these technologies. Social media is widely embraced as a tool for business or personal usage. However, it can be used as an effective tool for educational purposes. For example, a study by Sobaih et al. (2016) on the perceptions of academic staff on the use of social media in Egyptian higher education institutions revealed that social media has massive usefulness for academic-related purposes, especially as a tool of teaching and learning although its use by the faculty staff themselves was found to be minimal due to several identified barriers.

Communication and interaction in education are imperative for the transfer of ideas, information, and knowledge among both students and lecturers in the education process. This includes all methods of communication: verbal and non-verbal, written, spoken, formal and informal, visual, and communication techniques including both electronic and non-electronic. Using a variety of communication methods and techniques can facilitate the education process.

Social networking media depends on its users to provide content and exchange data which can be their opinions and experiences. Users can interact on social media through different methods, such as chatting, messaging, emails, videos, blogs, sharing files and other services. These methods attract large numbers of users, particularly the youth, at all levels of education. Thus, social networking media has emerged as the most promising of tools for reinventing public education (Seo, 2013). Researchers state that social media can enhance not only students' learning, but also the learning process (Brown, 2005; Turney, 2009). The usage of social media technology is more particularly apparent in universities where students use technology to collaborate, communicate and learn. In addition, this is an interesting topic that has received growing attention by researchers in the education field due to the potential role of social media as an enhancer and facilitator

of teaching and learning (Chang, 2008; Goh, 2010; Casey & Evans, 2011; Alhojailan, 2012).

Researchers (Mylonas et al., 2004; Mason & Rennie, 2008) state that the incorporation of social networking media in higher education learning environments is beneficial and important due to its impact on enhancing teaching and learning. The facilities that these websites provide for students, both inside and outside the classroom can improve the quality of education in terms of enabling students to improve their understanding by being more engaged in the learning environments, which is thought to support the creation and sharing of knowledge, as found by Tawalbeh (2021). Furthermore, some researchers feel that using social networking media can improve the efficiency and quality of teaching for students, which can lead to enhancing the learning environment (Blomeyer, 2001; Garrison & Anderson, 2003; Chit Hwa, 2006; Solomon & Schrum, 2007; Alhojailan et al., 2011; Bennett et al., 2012). However, there are still challenges for educators, not only to be familiar with the progressive and consistent development of such technologies and their impact on enhancing the education system, but also to adopt and utilise these technologies to improve the quality of educational institutions (Maor, 2003).

This is important because, according to Johnson et al. (2014), educators can play a pivotal role in the learning process. In an online setting, educators are the greatest influencing factor for students' efficient and effective learning. It is assumed that "institutions of higher education are not only attuned to change but positioned for leadership in the change process" (Millis et al., 2009:19). Regarding technology use, Berg (2013) claimed that students need a leader's guidance to help them choose effective technologies to meet their academic objectives. Accordingly, this research will focus on investigating faculty members' perceptions of using social media technologies in teaching and learning in higher education in Saudi Arabia.

In Saudi HE, the Faculty Council considers issues regarding the institute and faculty and has various responsibilities. These include assigning staff, lecturers, and tutors; recommending study plans and implementing changes and amendments in line with departmental coordination; recommending faculty or institute internal regulations and initiating their return for examination; and devising and arranging procedural rules and regulations. Each institute or faculty department is assigned its own Council, which comprises department teaching staff. In line with the Regulation for Organising the Affairs of Teaching Staff at Saudi Universities 1997, the teaching staff occupy several different levels or grades; there are Assistant teachers, Lecturers, Assistant Professors,

Participating Professors, and Professors. The Department Council is responsible for instigating the study of programmes and the preparation and development of courses, references, and textbooks for the Faculty Council. In addition, the appointment and promotion of teaching staff, lecturers and tutors is suggested by the Department Council. Similarly, the Department Council handles research activity, allocates administrative duties, and sets timetables. It is also assigned with the task of coordinating and organising departments' duties and training teaching staff. Notably, each individual department is assigned the responsibility of teaching the University Council's specified courses and syllabi (Council of Higher Education [CoHE], 2007).

1.3 Research Rationale

Through the nature of my work in the field of education as a teacher and academic supervisor of learning quality in the Saudi Ministry of Education, and through the joint programmes between general education and universities which are concerned with developing learning quality, I have noticed that there is an interest in every idea that has the potential to raise the quality of learning and student's outcomes. I have also observed that due to the expansion of social media among university students and lecturers for various personal purposes, they are very interested in using them every day. Moreover, the Saudi government's interest in this area is reflected in the Initiative for Digital Transformation, called 'Future Gate', which is one of the Ministry of Education's National Transition 2020 initiatives for the transition to digital education. Students and teachers (considered as the core of the educational process) have been a key focus in the initiatives to create a new learning environment based on technology for delivering knowledge to students, improving academic outcomes, and supporting the development of the capacity of scientific and educational teachers (Tatweer Educational Technologies, 2016). All these factors have inspired me to explore how to benefit from utilising these technological means to facilitate learning as these means are considered as one of the features that affect learning quality. After exploring the literature, I found that there are many studies that point to the importance and usefulness of involving social media technology in the educational process (Du & Wagner, 2005; Solomon & Schrum, 2007; Meyer, 2010; Kang et al., 2011). I have concluded that there may be a relationship between employing social media and enhancing learning, students' outcomes and learning quality in general. According to Echeng and Usoro (2016), it has been observed that since 2005 social media is a main outcome of the initiative of technology-enhanced learning.

According to Baxter et al. (2011), learning quality enhancement with social media needs a good implementation framework. In Saudi higher education, lecturers are responsible for designing courses and choosing the methods of teaching. Therefore, it is important to discover their awareness about the potential benefits of the use of social media in the learning process, and to explore obstacles that may hinder them from implementing this technology in educational environments.

From this research I expect to understand more deeply the perceptions of lecturers towards using social media in learning and teaching processes, particularly with respect to social media as a learning tool, to investigate the potential benefits of social media as a learning tool in learning environments with respect to educators' perspectives in Saudi higher education.

1.4 Research Problem

According to Al-Rahmi and Othman (2014), teachers' perceptions of social media technology integration in the learning process may affect student outcomes. Moreover, Lohnes and Kinzer (2007:7) argued that “faculty needs to have greater perspectives of the Net Generation technology expertise and how student learning is connected with technology; this is a vital component for higher education”. Some researchers concluded that students and academics can improve their learning and interaction skills and communicate with each other by using social networking media (Goh, 2010; Buqawa, 2015). This is a potential advantage for learning institutions seeking to improve their education systems, which has been addressed by number of observers (Top, 2012). It has been suggested that this technology is able to support and promote various learning and teaching methods and techniques, which could aid student learning. In addition, social media technology may be able to provide different methods of learning that are supported by community and learner centred online activities (Meyer, 2010; Kang et al., 2011). This means learners and students can communicate and interact with each other to contribute and analyse information. However, Bennett et al. (2012) indicated that students do not know how they can utilise new technological tools in their learning; in other words, it is likely that they need resources and support to be able to incorporate such technologies in their academic studies.

In the last 10 years, the usage of social media by higher education students has increased significantly. This happened as academics realised the practicalities of social media utilization in providing after hours support for students, deliver and host lectures, spread information and involve in discussion. Moreover, it was evident that the adaptation of

social media both in classes and outside classes had contributed to the increase of teacher-student and student-student interaction. Furthermore, the employment of Mobile devices had developed as a new technological achievement and educational style that offered both teachers and students with plenty of opportunities (Sanga et al., 2016; Abidin & Tho, 2018). In this regard, Ansari & Khan (2020), based on a survey of The Educause Center for Applied Research [ECAR], explained that 67% of students in higher education confirmed that mobile phones alongside SM occupy a fundamental part in their academic performance and career enhancement. Therefore, mobile devices and social media have provided outstanding educational e-learning prospects to the students for academic cooperation, accessing course contents, and tutors despite the physical boundary.

In Saudi, the number of smartphone-based internet users was 20.2 million in 2018 and is expected to continue rising to reach 22.5 million in 2023, and social media user penetration in 2018 was 52% of the Saudi population (Puri-Mirza, 2019). Furthermore, Dahlstrom et al. (2013) indicated that students in higher education were making increased use of mobile computing devices, such as tablets and smartphones, with 67% claiming that the technologies were a factor in their academic success. In addition, usage rates of social media applications among university students have risen. Shrivastav and Kishor (2014) investigated Indian management-science students who had experience with social media applications in libraries and information services. They found that the use of such tools by university students had grown at an increasing rate. This indicates the potential that social media technologies can have for enhancing the higher education system.

In fact, the growth in the popularity of social media technologies and the potential benefits for teaching and learning have led researchers to explore the possibilities of using them to enhance learning and teaching in higher education settings (Garrison & Anderson, 2003; Lin et al., 2006; Luján-Mora & de Juana-Espinosa, 2007; Solomon & Schrum, 2007). Several studies, such as Junco et al. (2011), Tariq et al. (2012) and Camilia et al. (2013) have claimed a relationship between using social media and students' academic performance. Researchers state that social media can not only enhance students' learning, but also the learning process (Brown, 2005; Turney, 2009). Al-Khalifa & Garcia (2013) have also claimed that social media are a means for sharing opinions and ideas and helping to build student communities, enabling them to collaborate with each other. On the other hand, there are some researchers who claimed that social media may have negative effects on students' performance and outcomes (Kirschner & Karpinski, 2010; Friesen & Lowe, 2012). Concerns have been raised that, due to young people's

susceptibility to pressure from peers and limited skills for self-regulation, there are risks involved as they experiment and navigate their way through social media used in instructional technologies. Research studies indicate that many educational institutions do not possess policies to deal with certain harmful offline behaviours, such as sexual experimentation, clique-formation, and bullying, and leave it up to individual teachers to manage these issues (Taylor et al., 2011). Additionally, several studies have claimed that students and their educators prefer to isolate their social life activities from study (Manca & Ranieri, 2013).

Nonetheless, the use of social media technologies can have a considerable potential impact on education, which has drawn the attention of the Saudi government (Al-Khalifa & Garcia, 2013). The claimed advantages are of current interest for Saudi Arabian educators and the government, which has initiated a programme of education reform with technology as one of its pillars (Smith & Abouammoh, 2013). According to Al-Khalifa & Garcia (2013: 66):

“The continued adoption of social media in HE institutions is unstoppable. This adoption has been used by the country to assist its citizens for them to learn, grow, and be more productive. This also leads to competition academically by providing its youths the quality of education they deserve”.

Such rhetoric warrants scrutiny, as these ambitious claims are not supported by any details or evidence as to how they can be achieved. The comment does, however, illustrate the strength of hope and expectation directed towards social media as a means of improving education quality. Moreover, there is evidence that lecturers and academic leaders, are keen to use social media sites. For example, many of the key figures in Saudi universities and the education hierarchy, including the Minister of Education have their own personal accounts in social media sites, which enhances their awareness of those technologies and uses. However, such utilisation cannot confirm or deter the application of such technologies in the teaching and learning process.

Moreover, in a comparison between students and lecturers, Barnatt (2008) claims that HE is lagging behind in utilising such technologies while students are more equipped and know more about content sharing than their lecturers. Since present-day students grew up in the digital world, which enabled them to deploy such technologies more quickly and extensively than their educators, increases the critical need to bridge such a gap between students and teachers. In addition, there is a need for more research to explore the direct benefits of utilising social media on academic knowledge, understanding and progression (Ricoy & Feliz, 2016). Therefore, this research seeks to explore educators' perceptions of

the potential impact of utilising social media in the learning and teaching process in higher education in Saudi Arabia, particularly in the light of government interest in exploiting these technologies.

1.5 Research Aims and Objectives

This research embarked on the main aim of investigating perceptions of lecturers, academic leaders, and students of the potential impact of utilising social media technologies in the learning and teaching process in higher education in Saudi Arabia. Accordingly, research objectives were structured that focus on exploring related aspects of the research topic. Due to the current situational context, the level of clarity and awareness of the potential impact of social media technologies in teaching and learning in HE is not clear or assessed. Thus, it is the aim of this research to explore views on such technologies and the potential impact of their utilisation in learning and teaching processes. To achieve this aim, the following objectives have been set to be achieved through looking into the use of social media technologies and their expected impact:

1. To identify the main features of Saudi higher education in terms of context and culture relevant to adopting social media technologies to support teaching and learning;
2. To understand how social media technology is utilised in higher education institutions in general and Saudi Arabia in particular to support teaching and learning;
3. To examine the nature of teaching and learning pedagogy in Saudi higher education;
4. To investigate the perceptions, primarily of lecturers, and corroborated by those of academic leaders and students, on the use of social media technologies at a selected university in Saudi Arabia.

The university selected for this research is Taibah University in Madinah. The main research question is: *How do lecturers, academic leaders and students perceive the utilisation of social media technologies and their impact on teaching and learning in Saudi higher education?* The following sub-research questions have been formed in line with the above objectives to guide this research:

1. What are the main features of Saudi higher education in terms of context and culture relevant to adopting social media technologies to support teaching and learning?
2. How can social media technology be utilised in higher education institutions in general and Saudi Arabia in particular to support teaching and learning?
3. What is the nature of teaching and learning pedagogy in Saudi higher education?
4. What are the perceptions, primarily of lecturers, and as corroborated by those of academic leaders and students, on the use of social media technologies at a selected university in Saudi Arabia?

1.5.1 Focus and significance of the study

This research examines the use of social media for educational purposes at a specific HE institution in Saudi Arabia, and it investigates educators' views to gain understanding of the situational context and conditions that are associated with utilising social media technologies in the teaching and learning process. Curricular and pedagogical implications are also explored, as well as the gap between lecturers and students. Figure 1.1, below, illustrates the research context and the two main aspects that are examined in the investigation process related to benefits and challenges.

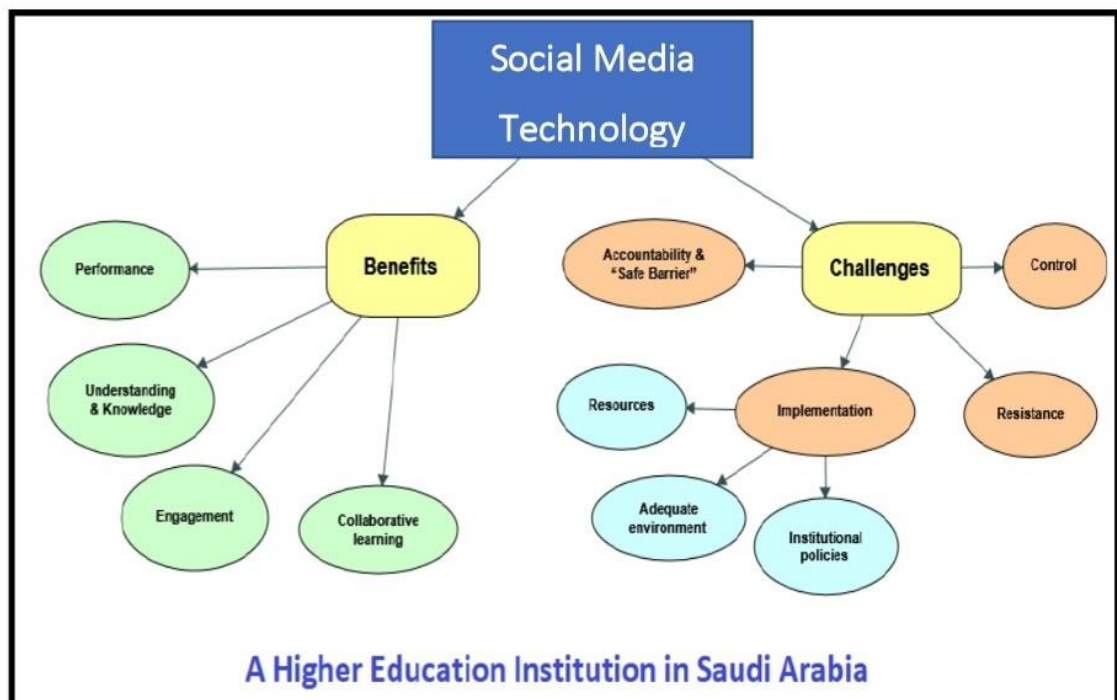


Figure 1.1: Research Context

The main contribution of the study is in providing insight into the perceptions of lecturers, academic leaders, and students on the potential impact of utilising social media in Saudi HE. Additionally, the research described the main features of Saudi HE, explored how social media technology is used in Saudi HE, described the nature of teaching and learning pedagogy, and revealed various benefits and challenges associated with the use of social media technologies in Saudi HE. The research thus contributes to the literature on social media use in Saudi HE. This has potential practical value in enhancing the processes of teaching and learning. More contributions and implications are discussed in the conclusion chapter in sections 7.3 and 7.4.

1.6 Summary and Outline of Subsequent Chapters

ICT is a focus of attention in the 21st century of technology in education due to its several potential advantages. One form of this is the increasing use of social media technologies during the last decade following the advent of social networking software. Users can interact on social media in various ways, including chatting, messaging, emails, videos, blogs, and sharing files. These technologies have been shown to be effective tools to support teaching and learning (Turney, 2009; Casey & Evans, 2011; Alhojailan, 2012; Sobaih et al., 2016; Tawalbeh, 2021). In particular, they support communication and interaction, which are imperative for conveying ideas, information, and knowledge. However, some challenges have also been highlighted by researchers, such as those related to the environment, institutional policies, resources, and cultural resistance (see Figure 1.1). Educators play a key role in the learning process with respect to impact on learning, and Berg (2013) remarked that students need guidance to help them choose effective technologies.

The present research was, thus, conducted to investigate the perceptions, primarily, of faculty members as well as those of academic leaders and students on the use of social media technologies in teaching and learning in higher education in Saudi Arabia. It could also uncover more benefits of utilising social media as learning tools (Ricoy & Feliz, 2016), and ways of dealing with the challenges. Additional objectives were devised to identify the main features of Saudi HE, understand how social media technologies are currently being utilised, and to examine the nature of existing teaching and learning pedagogy. In this context of Saudi HE, many important decisions are usually made by each Faculty Council, including the devising and arranging of procedural rules, and training teaching staff, but lecturers are usually responsible for designing courses and adopting teaching methods. The researcher notes an expansion of social media use in

Saudi HE, and the Saudi government has also invested in a number of related initiatives to promote the use of technology in education, particularly its 'Future Gate' as part of the National Transition 2020 and Vision 2030. This government interest includes promoting the use of social media technologies in education (Al-Khalifa & Garcia, 2013). The present research was conducted at Taibah University in Madinah

The next chapter describes the research context of this study. The subsequent literature review chapter gives more detailed background information on definitions, history and usage of social media and social media technologies; examines theoretical rationales offered for implementing social media technologies in the higher education context and discusses several educational implications suggested by previous studies. These implications are considered in terms of whether they provide educational benefits or drawbacks. Three main areas of benefits are examined, namely, collaboration and communication, engagement, and interaction, and gaining knowledge and information.

The fourth chapter details the methodology applied in the current study for carrying out the primary research to achieve the study's objectives specified earlier in this chapter under section '1.5'. The fifth chapter presents the results and findings of the current study. The sixth chapter of this thesis discusses these results and findings considering the research questions and literature and draws out the implications of the study leading to a conclusion.

CHAPTER 2: Research Context (Saudi Arabia)

2.1 Introduction

This chapter describes the research context of this study, which is a selected university in Saudi Arabia. The research context is outlined with respect to history, geography, language, religion, culture, and the kingdom's higher education system. It includes a look at educational trends, the role of social media technologies in Vision 2030, the role of electronic teaching in Saudi HE, challenges faced in this sector, and a brief background of the university selected for conducting this research, namely Taibah University in Madinah.

2.2 History and Geography

Founded in 1932, the Kingdom of Saudi Arabia is situated in the Arabian Peninsula, in SW Asia. It is the largest country in the Middle East and the fourteenth largest in the world (GASTAT, 2019). Ruled by a monarchy, the Kingdom is divided into 13 provinces (Figure 2.1). This study was conducted in the city of Madinah, in Hijaz region, in the West of Saudi Arabia. As of 2019, the Kingdom's population was approximately 34.218 million, of which 22.4 million were Saudi nationals, and by gender, 57.4% were male and 42.5% female.



Figure 2.1: Provinces of the Kingdom of Saudi Arabia

Source: Alshathri (2019: 3)

Although three-fifths of the population live in big cities, many continue to live in villages and rural areas, and prefer to travel to the cities for various purposes, including students attending universities.

2.3 Language, Religion and Culture

The state language of Saudi Arabia is Arabic. Additionally, English is used as a second language, but it is also a common medium of instruction in several non-religious disciplines (Al-Shahrani, 2015). The state religion is Islam, which has a strong bearing on culture, laws, and the education system as well. This is also the reason behind practices such as gender segregation in education, although there are exceptions, such as for those studying medicine and at a few HE institutions (Alharbi, 2016), which do not include the one at which the present study took place. Normally, interaction between men and women who do not belong to the same family is not considered acceptable. Gender segregation in turn affects social research due to difficulty in gaining access to members of the opposite gender.

Arabian culture generally is collectivist and Saudi Arabia is no exception in this regard. It is also highly conservative. It scores very highly at the collectivist end of Hofstede's dimension of individualism-collectivism to describe cultures (Hall & Hall, 1990). The collectivist nature of its culture might make it seem that teachers and students in Saudi Arabia would be accustomed to using social media technologies, since it involves interaction and collaboration. However, traditional teaching methods are still dominant and social media technologies are not widely implemented for educational use (Stanger et al., 2017). This means, for example, maintaining a firm power distance in the relationship between teachers and students where the flow of information is from teachers to students, and students are dependent on their teachers during their education. Hofstede (1980) noted this high power distance in Arab countries in his assessment of power distance in different countries, and the same situation was noted by Albugami and Ahmed (2016) in their exploration of the effects of culture on the use of ICT in the Saudi education system.

A ubiquitous reason for this is the strict gender segregation in educational settings that obstructs free interaction across genders, and additionally, lack of creativity and reluctance to change may be factors. Mooij (2009) also noted that Arabs tend to feel uncomfortable in unstructured situations, so it could be that Arab students would be more likely to adopt social media technologies for learning if their learning is properly organised with a strongly defined structure, clear learning goals and if the learning is

managed for students rather than left for them to learn in a group in a less organised way. Recently however, Saudi society has become more open compared to the past. Women are more independent, enjoy more rights and freedom, and are being assigned important roles (Omair et al., 2020).

2.4 Higher Education in Saudi Arabia

2.4.1 Higher education in Saudi Arabia

The Ministry of Higher Education (MoHE), established in 1975, was originally responsible for the planning, coordination, and supervision of the higher education system in the Kingdom. However, in 2015, it was integrated with the Ministry of Education (MoE) to form a single ministry in charge of education at all levels (PwC, 2017). It functions in a largely centralised manner, and is supported by specialist centres, such as the National Commission for Academic Accreditation and Assessment (NCAAA), which oversees the attainment of quality standards, the National Centre for Assessment in Higher Education (NCHAE), which is in charge of standard entrance examinations in Saudi universities, and the Centre for Higher Education Research and Studies (CHERS), which conducts research to inform both policy and practice (Smith & Abouammoh, 2013).

In Saudi universities, there are four levels of educational programmes: bachelor's degree, higher diploma, master's degree, and doctoral degree. A bachelor's degree is usually completed in four years of study. However, this may extend to up to six years, depending on the major. A higher diploma is usually completed in one year. The duration of a master's course is usually two years, and a course of doctoral studies lasts a minimum of three years (Clark, 2014).

2.4.2 HE students and institutions by number

Table 2.1 below shows the number of students enrolled in higher education institutions in Saudi Arabia (public and private universities, colleges and other HE institutions), and the distribution percentages according to academic level (first column) and gender (second and third columns) in the academic year 2017-2018. The total number of enrolled students reached 1,424,017 across all levels, of whom 681,648 (49.4%) were male and 741,848 (50.58%) were female.

Table 2.1: Number of enrolled students in HE education by level.

Education Level	Male Students	Female Students	Total	Female Percentage	Percentage of Total
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Bachelor	652,756	714,985	1,367,741	52.3%	84.4%
Postgraduate Diploma	5,017	5,229	10,246	51.0%	0.6%
Master	19,565	18,684	38,249	48.8%	2.4%
Doctoral	4,831	2,950	7,781	37.9%	0.5%
Total	681,648	741,848	1,424,017	50.58%	100%

Source: Ministry of Education (2021).

It may be noted from the distribution by education level that the majority 84.4% of students in Saudi HE were studying at Bachelor level. This is followed by the Postgraduate diploma level with 0.6%, followed by master's level which accounts for only 2.4%, and 0.5% for Doctoral level. By gender at Bachelor level, this amounts to 47.73% males and 52.27% females. Out of the total students in HE, males at Bachelor level accounted for 40.28%, and females at the same level for 44.12%, which together make up the 84.4% of all Bachelor level students. This is important because the present study was carried out among these Bachelor level students.

To put the HE sector into perspective relative to the whole Saudi education sector, the total number of students enrolled in schools and colleges is 4,546,156 (4.55 million), which compares with the 1.42 million in HE. The students in the HE sector accounted for 26.3% of the overall total student population in Saudi Arabia.

As of 2021, there are a total of 59 higher education institutions in Saudi Arabia, including public and private universities and colleges that are either chartered, licensed and/or accredited by the Saudi Ministry of Education. They offered at least four-year undergraduate or postgraduate degrees (Ministry of Education, 2021). The population of university staff was approximately 85,409 in the academic year 2017/2018, and the student population stood at 1.42 million in the same year (Puri-Mirza, 2017; Ministry of Education, 2021).

2.4.3 Role of English

There has been diversification and significant progress in education in Saudi Arabia over the last 50 years. In particular, its higher education has been transformed in order to advance the country and its people in a range of areas. Increased student population, job market demands, and the influence of international universities have been the driving force of such change. With the emergence and progress of globalisation, the Kingdom has adopted English as the dominant foreign language. Even the curriculum created by the

Ministry of Education has been designed to facilitate English instruction, as this is believed to facilitate modernisation and competitiveness at both regional and global levels (MoE, 2020). Whilst English is not yet officially declared as a second language in the Kingdom, it is given considerable importance as the primary foreign language in Saudi schools (Hamdan, 2015).

2.5 Educational Trends

2.5.1 Growth of the education sector

Saudi Arabia's education system has changed rapidly since the establishment of the Kingdom in 1932. At that time, few children living in major cities were educated. In contrast, recent years have witnessed a substantial expansion of higher education in Saudi Arabia, including the development of private universities to meet growing student demand. This is in line with the increase in student numbers internationally (Tran, 2020). According to the Ministry of Education (2020), "Today, Saudi Arabia's education system includes over fifty public and private universities, with more planned; some 30,000 schools; and many colleges and other institutions. The system is open to all citizens, and provides students with free education, books and health services."

In 2018, it was estimated that the Saudi education system would likely require around 125,000 more places by 2020 due to population growth, which would place pressure on the existing education structure, as the younger population moved into and through the system. As a result, it was expected that there would be increasing demand for more schools and faculty members in the coming years (Oxford Business Group, 2018). However, the global Covid-19 pandemic which emerged at the end of 2019 is damping university enrolment numbers, and Saudi Arabia has seen a reduction of around 16.5% in 2020, but this large drop is also attributable to the scaling back of a large-scale government-backed foreign scholarship programme (Redden, 2020).

2.5.2 Potential for social media technologies

While the Saudi higher education sector has grown, there has also been a development in the manner of its delivery of education to students. This follows a global trend in higher education toward innovation in educational practices, including a growing emphasis on distance learning. These changes can be broadly attributed to advancements in science and technology, and to the transition of economies towards knowledge-based workforces where information and communication play a vital role. This leads to much attention being paid to the quality of education, and how it can meet the demands of a rapidly

changing world (Ageel, 2015). Saudi Arabia's focus on higher education is now anchored in the necessity for skilled professionals to assist in the country's economic advancement (Ageel, 2015). These trends have a bearing on the current study because social media technologies have the potential to cater to the rapid rise in demand for higher education, and because they support distance learning and the focus on a knowledge-based economy.

2.6 Vision 2030

2.6.1 The vision

Vision 2030 is the Saudi government's long-term development programme to be achieved by 2030. This programme contains three fundamental themes: (1) creating a lively society, (2) encouraging economic progress, and (3) fostering an ambitious country. These themes are dependent on the success of the education system, which is a significant focus of the programme (Oxford Business Group, 2018). Saudi Vision 2030 seeks to transform the Saudi economy from being hydrocarbon-dependent to being more diversified and primarily a knowledge-intensive economy by increasing non-oil revenues in a major move away from being strictly an oil-producing export country. The idea is that this would ensure a high standard of living for all its citizens. Vision 2030 is thus a highly ambitious development programme. However, it is already extensively impacting the construction sector. Since the publication of Vision 2030 in April 2016, the Saudi government has made a number of reforms that have rapidly increased demand for construction. The National Transformation Programme (NTP) 2020 is also vital to implementing Vision 2030's medium-term objectives, and it has resulted in sizeable investment. In this way, Vision 2030 is already taking concrete shape (Oxford Business Group, 2018; Ramady, 2018).

The aims of Vision 2030 include driving construction growth through a complex approach to socio-economic development, and to considerably increase non-oil revenues. The diversification pursued by the Vision involves various sectors, including education, transportation, logistics, manufacturing, and renewable energy. Developing these sectors will require massive expansion of various infrastructure. The Public Investment Fund (PIF), which is the Kingdom's wealth fund, is taking the lead in ushering Vision 2030 forward via a number of large-scale projects in major cities (IMF, 2016; Oxford Business Group, 2018).

2.6.2 Education in Vision 2030

The Saudi government has long acknowledged the importance of expanding the economy to meet expected growth, whilst also recognising that the Kingdom's education and training must harmonise with the changing needs of a knowledge-based economy. With this in view, education is at the forefront of the Saudi government's Vision 2030. To achieve the goals outlined in Vision 2030, the Saudi government is committed to supporting private colleges and universities in order to invest in higher learning and thereby cater for the requirements of the labour market (Kashisaz & Mobaraki, 2018).

As Allmnakrah and Evers (2020) explain, the country needs to focus on training its citizenry to ensure that they are adequately educated in various disciplines to ensure that they are able to access the necessary skills to help in the transformation of the economy to a more knowledge-based economy. According to Almutairi (2018), pre-service and in-service teachers should be trained in innovative approaches to ensure that they are equipped with the necessary skills and knowledge to have a positive impact on students, and thereby enable them to play an active role in the achievement of Vision 2030. The government has therefore renewed its commitment to the promotion and reform of education in Saudi Arabia.

This research focuses on the potential benefits of using social media technology for learning and teaching. Specifically, the research focuses on the higher education system in Saudi Arabian universities. According to the education pillar in the Saudi 'National Transition 2020 Plan', universities should follow a policy that actively encourages faculty members to employ technology to facilitate teaching and learning (Patalong, 2016; Ministry of Education, 2019). This is in addition to related objectives such as improving the training and development of teachers, improving the learning environment to stimulate creativity and innovation, improving the curricula and teaching methods, to name a few (Patalong, 2016). It is an ambitious roadmap with the longer-term goal to provide more employment for Saudi citizens as part of the greater Vision 2030 aimed also at facilitating the transformation to a knowledge-based economy. Importantly, education is a fundamentally important building block of this vision, and the shift to digital education is considered a vital process in establishing this block.

As mentioned by Kerr (2016), teaching methods is one of the key areas targeted for undergoing transformation in Saudi Arabia in addition to reforms in the education system as a whole and in the role of teachers. Notably, teachers are expected to become facilitators of learning as opposed to simply imparting knowledge, and to give students

opportunities to learn “in a more collaborative learning environment” compared to traditional “fragmented, skill-based curriculum that focused on memorization and repetition drills” (Al-Kinani, 2013). This transition from traditional teaching in which decision-making is centralised, to technology-based teaching, is a radical one (Algami & Male, 2014), which suggests educators would need to be convinced and assured of the potential benefits of social media technologies despite knowing that they will have to eventually adopt such technology-based methods anyway. In view of the importance of this study in the context of fulfilling Vision 2030, this research focuses on investigating the views of faculty members on the potential impact of utilising social media technologies in the teaching and learning process, involving lecturers, academic leaders, and students.

2.7 E-Teaching in Saudi Higher Education

2.7.1 Role of ICT

In recent years, Saudi Arabia has increased its focus on information and communication technology (ICT), which is a rapidly evolving sector. The Kingdom has recognised the important role of ICT in establishing an information-based society for both creation and diffusion of information. ICT also acts as an ‘enabling technology’ in various domains. For instance, evidence suggests that ICT helps to boost Gross Domestic Product (GDP), productivity, and expenditures in the short- and long- term, as well as creating new sources of income, and facilitating capacity utilisation (Oxford Business Group, 2014). This has been demonstrated by the transformation of some countries into information societies and supporting their technological advancements while strengthening their economic sustainability and social development programmes (UNESCWA, 2013).

In similar lines, some universities have followed suite by adopting learning management systems (LMSs) to facilitate learning. As Alenezi (2018) points out, Blackboard is the most commonly used system in institutions of higher learning in Saudi Arabia. However, the efficiency of these systems is complicated by the fact that some lecturers and students find it complicated to use.

Offering a more effective learning environment to students and faculty requires adequate provision of ICT. The existing state of ICT provision in universities should be examined to identify current good practices and what improvements are needed. Alzahrani’s (2017) findings revealed that Saudi universities appeared to have adequate supplies of ICT tools, owing to the emphasis placed on ICT, but that some students and teaching staff required training in their use. There appeared to be an uneven use of ICT due to varying levels of

skill and experience among students and teaching staff across universities in the Kingdom. In their study, Robertson and Al-Zahrani (2012) found that pre-service teacher participants were highly skilled in computing, which influenced their confidence and willingness to use ICT when they became faculty members. These findings suggest that enhancing faculty members' access to ICT training would improve their confidence and motivation to incorporate it into their teaching. Additionally, in Nassuora's (2013) study, it was found that Saudi students have a high acceptance level of mobile learning, which suggests a readiness to adopt new educational technologies.

2.7.2 Distance learning and social media

The government of Saudi Arabia has continued to keep up with new developments in the field of educational technology to support eLearning and distance education. This massive investment in distance learning aimed at transforming the educational programs from a fully traditional system to a blended learning system. However, distance education has not spread to all universities in Saudi Arabia and is limited to specific disciplines. Despite this fact, it is obvious that the employment of this new technology to promote effective learning and teaching, somehow, contributes to greater economic and social development, not to mention that learners who live in remote locations have indeed benefited from distance education (Alturki, 2014). Similarly, Alzamanan (2017) argued that many Saudi students are already employing technology for distance learning, and some higher education institutions in the Kingdom have already started adopting distance learning.

Furthermore, social media has changed both e-teaching and e-learning systems in Saudi. In this regard, Nookhong and Wannapiroon (2015) confirmed that a considerable number of people in the country are involved in the use of social media platforms for e-learning purposes, and in creating social media groups to support certain interests. The adoption of technology, in particular the use of social media, has provided a new medium that can enable learning and facilitate the exchange of information. Yusuf et al., (2016), for instance claimed that increased social media use has influenced their attitudes towards e-learning. Additionally, a study by Alasfor (2016) on the adoption of social media by Saudi university instructors showed that over half (51.2%) of the total 387 instructors surveyed were using social media for e-teaching their students at the time of the study or had used it in the past. In this way, the adoption of social media by educators for teaching purposes proves that distance education is indeed effective.

In Saudi Arabia, WhatsApp and Youtube are two common social media platforms used by students to share academic information (Albalaw, 2017). These platforms offer students many possibilities for expanding their knowledge and learning potential. Social media tools have even been integrated into Saudi Arabia's current academic system to help adapt the curriculum for the needs of the 21st century classroom (Yusuf et al., 2016). However, integrating technology into higher education in the Kingdom is hindered by culture, instructional design, and the lack of availability of faculty with sufficient expertise which in turn negatively affects the outcomes of distance learning and teaching (Aldosemani et al., 2019). Even though an increased use of social media, as a learning tool, has eased communication and offered cultural diversity in Saudi Higher education (Yusuf et al., 2016), online learning and teaching has not yet fully benefited from such platforms.

2.8 Social Media Usage in Saudi Universities

As found earlier by Alamri (2011), despite most Saudi deans having been educated internationally, bureaucracy is still a major obstacle in Saudi higher education, and despite the central authority of the MoE for directing university education, there is inconsistency in some curricula. The traditional approach remains the dominant teaching learning style. Moreover, the faculty administration determines the teaching approach to be adopted. Nonetheless, it is observable that there is increasing usage of social media to support teaching and learning in higher education in Saudi Arabia. At the same time however, it is also notable that although Saudi lecturers are using social media, not all of them are using them in support of teaching and learning processes. Many of them use social media only for interacting with family and friends, and rarely as a tool for teaching and learning (Alasfor, 2016). However, there is some progress toward embracing social media more for educational purposes. As Al-Khalifa & Garcia (2013) explained, some Higher Education institutions in Saudi Arabia have started to embrace the use of social media platforms, especially when there are discussions about education matters, provided they abide by Saudi culture.

According to a study conducted by Alasfor (2016), over half (51.2%) of the total 387 instructors surveyed use social media or have been using it in the past. 87% of instructors said they would use it. Most of the instructors (57.2%) were female, and most of the instructors (44.9%) were under 35 years of age, though actual use was greater among those aged 36-45. There are 57.1% of social media users using media sharing sites, 54.5% using social networking sites, 36.4% using microblogging, and 32.8% using wikis. Only

a small proportion did not use them due to these reasons: too time-consuming, inappropriate, inefficient, they reduce control over students, are too complex, the internet service is poor, the students are unaware of their benefits, and they are not accepted by the students and for violations of privacy.

2.8.1 The role of lecturers

Evidence shows a paucity of research on the adoption of social media to facilitate learning among faculty members in Saudi institutions of higher learning. In this respect, the majority of studies focus on the benefits that accrue when institutions utilise social media for learning and teaching (Wong et al., 2015). Despite a continual increase in the use of diversified social media tools among learners, university faculties make little use of such tools (Allmnakrah & Evers, 2020). This is despite lecturers being aware of the potential of social media in improving the quality of education, as well as the opportunity to meet the swelling demand for higher education in the country. However, as Devine (2015) explains, younger faculty members who are less experienced as teachers have a higher tendency to use social media in education compared to more experienced older lecturers. This is because older lecturers have limited use of social media even in their personal lives, hence the limited professional use (Seaman & Tinti-Kane, 2013). With the high demand for higher education in Saudi Arabia, it is necessary that lecturers learn how to implement online learning, which works collaboratively with social media use (Moran et al., 2011).

2.8.2 The role of academic leaders

A study conducted by Alqahtani (2019) reported that academic leaders appreciate the role of social media in facilitating learning despite the low absorption rate of the use of social media in the majority of Saudi institutions of higher learning. According to Van Den Beemt et al. (2019), the low rate of utilisation of social media in learning institutions in Saudi Arabia is attributed to many institutions having organisational limitations, as in the case where principals may reject such learning tools. In other institutions, the challenge could be because of lack of investment in technical infrastructure, lack of resources, and network restrictions, especially due to overload. In this situation, some academic leaders prefer to stay offline due to the fear and anxiety that these identified barriers may hinder their work online. According to the study conducted by Alqahtani (2019), an average of only 4.07 or slightly more of the academic leaders in the sampled population of academic leaders reported a strong inclination towards the use of social media platforms for academic purposes. Moreover, they were more willing and open towards sharing

information digitally with the learners through social media. The author further argued that social media use among academic leaders for academic purposes is critical in the improvement of academic leaders' communication skills. In this respect, professional development, not only for the teachers, but also for academic leaders, can play a critical role in promoting the use of social media in the majority of institutions of higher learning in Saudi Arabia.

2.8.3 The role of students

Generally, students have a positive attitude towards the use of social media as a learning tool, as it is considered user-friendly and convenient compared to other learning management systems, such as Moodle (Van Den Beemt et al., 2019). Students also consider social media to be interactive, and easy to use for holding discussions and communication, as well as for sharing information (Ansari & Khan, 2020). In a systematic review of previous literature, Malik et al. (2019) found that social media platforms such as Twitter have a major role to play in terms of increasing the level of motivation of learners, as well as their level of engagement in the class. The more the students use Twitter and Facebook through a collaborative approach that integrates both informal and formal learning, the more likely they would feel engaged and have a strong sense of belonging in class (Menkhoff et al., 2015). In other studies, the increased use of social media among learners has been reported to result in learning from the interaction of students (Ahern et al., 2016). These results are attributed to the use of social media yielding better results compared to other teaching systems, such as pure online learning. While the majority of learners are already using social media for the purposes of staying connected to their friends and family, researchers have suggested their highly beneficial when these tools are engaged more in their professional and career development through staying connected with their academic community, sharing knowledge, and for giving and receiving feedback, among other uses (Alqahtani, 2019).

2.9 Challenges Faced in the Saudi Higher Education System

Funding for most Saudi universities comes from the oil industry. Indeed, economic development has a great impact on the Saudi education system. Even though the Kingdom relies heavily on oil revenue, it is shifting toward a more diverse economy that prioritises high-quality knowledge and skills (Hamdan, 2013). Recent changes in the Kingdom have led it to build a new strategy for boosting economic productivity, which has resulted in a new economic vision. This vision has allowed the Saudi government to face the challenges in meeting its higher education expectations. Since 2016, the Kingdom,

through its Crown Prince, has pursued a strategy designed to develop Saudi Arabia into the world's most economically and educationally advanced country in the world by 2030. University leaders have responded to this vision by internationalising higher education. However, the education system in the Kingdom faces major challenges, specifically in terms of research productivity, accreditation, and quality improvement, which are all hindering progress towards its goals (Smith & Abouammoh, 2013; Alharbi, 2016). Another challenge is the dominance of conventional learning methods over the adoption of more modern methods (Alzahrani, 2017), which would include the use of SMPs.

The complexity of the higher education system in the Kingdom has resulted in its performance being inadequate for keeping pace with educational demands. Additionally, its transformation is being hindered by a lack of coordination and cohesion between planning bodies and teacher-researchers, as well as by the limited number of higher learning institutions, and an insufficient number of quality faculty members (Ageel, 2015).

In the past, the Kingdom has been faced with the challenge of a rapidly increasing student population. At one time, due to increased demand for places, approximately 60,000 students were unable to enrol in higher education institutions. This led to the establishment of the King Abdullah Scholarship Programme, which allows Saudi students to study abroad to meet the needs of the job market (Hilal, 2013). To address this challenge, it is important that the various stakeholders in the education sector including students, educators, institutions and the government consider the adoption of social media in teaching and learning process in line with the Saudi context and culture. As Almutairi (2018) notes, teacher training could be developed to promote a shift towards teaching style and learning processes that incorporate innovation and digital technologies. Moreover, there is a challenge as various universities are considered as emerging universities, which need resources and infrastructure to keep pace with the requirements of modern-day education.

Research productivity also presents a challenge and is one of the few areas of a university's activity that is measurable across nations. Research funds, student selection, and faculty qualifications are some other metrics that can be used for ranking internationally. Smith and Abouammoh (2013), discussing the challenges confronting Saudi higher education, proposed that the Saudi government should open opportunities for its universities to be internationally recognised by giving priority to research pursuits. Currently, however, the challenge to Saudi universities in this area is reflected in the low

amount of research that has been carried out and published. Lack of knowledge and expertise, as well as a lack of English proficiency, contribute to this low rate of published research articles (Alharbi, 2016).

In support of this aim to internationalise higher education, several studies have confirmed that universities pursuing high academic quality tend to become more globalised in their outlook, which can help them to achieve success (Majed, 2011; Hilal, 2013). International university accreditation is very important for the global recognition of Saudi universities. It is therefore important that the standards of its higher learning institutions be reviewed by an independent, quality governance organisation. It can be seen, therefore, that quality and accreditation are two challenges facing Saudi higher education. International accreditation is an urgent necessity for Saudi universities so that they may align themselves with globally accepted educational practices (Hamdan, 2013). Although their goal is to be globally recognised, the reality is that many universities lack quality and efficiency, which has hindered them in pursuit of that goal. If a Saudi university could receive accreditation from an international body, it would enhance its reputation beyond the Arabian Gulf region (Alharbi, 2016).

Aldosemani et al. (2019) identified some of the issues being faced in higher education in Saudi Arabia relating to the perceptions of teaching staff towards internet technology. They documented the challenges experienced by teaching staff in their adoption of this technology, and the support that they received. Recommendations they made included regular provision of training to improve teaching staff's skills and confidence. They suggested that workshops should focus on e-learning schemes, instructional design, and student evaluation.

The specific challenges confronting the Ministry of Education have been addressed through a development process known as the 'Horizon' (Afaq) plan, which was established alongside the National Communication and Information Technology Plan. By considering the objectives and strategic plans of the different sectors associated with the Ministry, the Kingdom aims to maximise resources and strengthen all stakeholders (STEMConnector, 2015).

2.10 The Selected University

The university at which the research took place was Taibah University, a higher education institute situated in the holy city of Madinah, western Saudi Arabia in the Hijaz province. It was established by Royal Decree number 22042 in 2003 to implement the decision of

the Council of Higher Education to merge the Madinah campuses of Muhammad bin Saud and King Abdulaziz universities into a single independent university. Taibah University is a public non-profit coeducational university. In the year of its founding, there were fewer than 8,000 students, whereas the student population has increased dramatically in recent years (MoE, 2019). It currently has over 63,000 students enrolled across 28 colleges and 156 educational programmes.

2.10.1 Vision and mission

Taibah University is governed by its vision to pursue globally recognised and wide-ranging education committed to excellence in the fields of teaching, research, and community development. It is also guided by a mission to contribute to social development, which values sustainability and promotes a knowledge-based economy through high-quality education, research, and partnership with communities. It aims to create an enriching environment where constant learning and creativity prevail (Taibah University, 2020). The strategic directions taken by Taibah University to ensure it consistently achieves its mission and vision include promoting excellent teaching and learning, adopting research to foster community service, establishing vibrant community partnerships, continuously enhancing administration and financial management, diversifying income resources, and improving national, regional and international university rankings (Taibah University, 2020). As a state university, Taibah University receives funding from the Saudi government for education, research, innovation, and entrepreneurship (Taibah University, 2020).

2.10.2 Academic programmes and degrees

Taibah University has 28 colleges, of which 16 are located on its main campus and 13 elsewhere. It also has up to 161 departments. The university offers 156 academic programmes in seven-degree categories, including diplomas, associate degrees, bachelor's degrees, and master's degrees. Some of its colleges include Health Sciences, Applied Sciences, Humanities, Community Colleges, and Higher Institutes (Taibah University, 2020).

2.10.3 Governance and education system

Taibah University is bound by the decree introduced by the Ministry of Higher Education in 2007, which requires higher education institutions in Saudi Arabia to present a four-year operational programme every four years. At the same time, it is required to comply with the Master Strategic Plan 2025 (Taibah University, 2020). The university's Vice

President for Development and Quality oversees the Strategic Planning Committee (SPC), which organises meetings and discussions relating to the Master Strategic Plan 2025 and the First Operational Quadruple Plan. Taibah University's future direction is oriented towards Vision 2030, and the educational aspects of the National Transformation Plan 2020 for upgrading education quality. It aims to become one of the important cornerstones of Saudi higher education (Taibah University, 2020).

2.11 A Brief Summary of the Context

The present research was conducted at the selected HE institution of Taibah University, situated in the city and province of Madinah, Saudi Arabia. The kingdom was established in 1932. Its state language is Arabia, and its state religion is Islam. The culture is typically described as highly conservative and collectivist, with high power distance between leaders and normal people, which in the context of education, is reflected in the relationship between lecturers and students. Notably, gender segregation is simultaneously a cultural challenge for male-female interaction as well as a cultural aspect that is itself being impacted using social media technologies. Traditional teaching methods such as reception in silence and memorisation for exams are still dominant (Alzahrani, 2017) despite their impossibility in supporting interaction and collaboration among learners. Recently however, Saudi society has become more open than in the past, as was noted by Omair et al. (2020).

Educational policies in the kingdom are mostly dictated solely by the government, and the higher education sector is controlled by the Ministry of Education (MoE), which functions in a largely centralised manner. The majority of students (84.4% as of 2018) in HE institutions are bachelor level students who typically study for four years. The gender disparity is much higher at the higher levels, but bachelor level students are roughly equally divided between males and females. The total number of HE students in the academic year 2017-2018 were more than 1.424 million, and in 2019, there were 42 universities altogether, of which ten were private.

Although student numbers were rising in recent years, the numbers have declined during the present coronavirus pandemic, as in other parts of the world. Other relevant trends include a growing prominent role of English in Saudi HE where for many students, it is a foreign or second language; an increasing adoption of distance learning and supporting other innovations in the education sector. The education pillar of the National Transition 2020 Plan specifically states to encourage faculty members to employ technology to facilitate teaching and learning. The success of the education system is thus pivotal to

achieving Vision 2030, which seeks to transform Saudi society through a strategy of diversification, massive expansion of infrastructure, and establishing a more knowledge-based economy.

The role of ICT is therefore paramount, and many universities have already adopted learning management systems, although it may be argued that social media platforms provide a more convenient newer medium to facilitate information exchange and learning. As of 2016, 51.2% of instructors in a sample of 387 were found by Alasfor (2016) to be using social media to support their teaching, and most believed in their effectiveness. Yusuf et al. (2016) found that some universities have even integrated social media tools in their education system, but they have had to contend with challenges related to culture, instructional design, lack of availability of faculty with adequate expertise (Ageel, 2015; Aldosemani et al., 2019), and lack of resources (Almutairi, 2018; Van Den Beemt et al., 2019). It may be for these reasons that some university faculties make little use of such tools (Allmnakrah & Evers, 2020). Despite the low absorption rate, many academic leaders appreciate their role in facilitating learning (Alqahtani, 2019).

The attitude of Saudi students is generally more positive toward accepting social media as a learning tool. Besides allowing for valuable feedback and knowledge sharing (Alqahtani, 2019), students have also benefited from higher engagement and a strong sense of belonging (Menkhoff et al., 2015). However, the challenges highlighted in section 2.9 would need to be addressed if social media technologies are to be used effectively. These include issues related to the perceptions of teaching staff toward their use (Aldosemani et al., 2019), which is a key concern of the present study.

CHAPTER 3: Literature Review

3.1 Introduction

This chapter presents the significant literature in the field of social media technologies to show what existing research has revealed on the subject matter of the study. The impact and limitations of using social media technologies for learning in higher education systems are thoroughly described, followed by theoretical rationales for implementing such technologies in the higher education system. The chapter continues by investigating the educational implications of using social media technologies, in terms of benefits, drawbacks and learning tools. Furthermore, the theories underpinning the use of such technologies in learning are explored. Table 3.1 below presents an outline of this literature review chapter to explore lecturer perceptions on the use of social media technologies in higher education, and details what each sub-topic covers.

Table 3.1: Outline of the literature review

No.	Topic	Sub-Topic	Detail/Breakdown
1	Social media technologies	Definition and history	Social media, Web 2.0
2	Use of SM technologies in education	Adoption of these technologies in the HE sector	Administration, informal communication, course delivery.
		Use of SM technologies by faculty staff	Use by lecturers, and by course and curriculum designers.
		Predominance of their use in particular fields	Language learning and medical education.
		Use of SM technologies by students	Importance, usage patterns.
3	Theoretical rationales for implementation of SM technologies	Students and the Net Generation	Different generations, generational differences and gaps.
		Paradigm shift in the nature of education.	Facilitating communication and interaction
		Interactivity of students	Areas of interaction, engagement, learning enhancement, participation
4	Educational implications of using SM technologies	Educational benefits - indirect	Cooperation and collaboration; communication and interaction; engagement and motivation
		Educational benefits - direct	Gaining knowledge; information sharing; learning enhancement and other academic benefits; benefits in specific fields; pedagogical benefits, implications and approaches
		Drawbacks, challenges and conditions	No indications and conditional ones; computer/internet access; pedagogical, social and cultural drawbacks; learning and other academic issues; legal and security issues
5	Preferences, perceptions, and experiences of using SM in HE	Those of students	Importance; different perceptions and experiences
		Those of teachers and lecturers	Different perceptions and experiences; motivations and obstacles; usefulness; roles
		Perceptions and experiences in specific fields	Experiences in language education, and in medical education
		Those specifically in Saudi HE	Survey of perceptions and experiences in the same context as the present study

The aim of this research is to investigate the potential benefits of using social media technology as a learning and teaching tool in the higher education sector in Saudi Arabia.

Therefore, the main keywords used for searching literature were 'social media', 'social media technology', 'higher education', and 'Saudi Arabia'.

3.2 Social Media Technologies

Nowadays, emerging technologies play a key role in peoples' lives, specifically for students in terms of education and improving their knowledge through learning online. This type of learning has become part of the lifestyle in modern society (McLoughlin & Lee, 2007). Information technology is one of the emerging technologies that merges with education and enables the learners to capture and share information through numerous paths. In the traditional education system, learners are more passive, and instructors compile and provide them with materials (Palloff & Pratt, 2007; Mason & Rennie, 2008). However, learners are more active and participatory in the new e-learning 2.0 era.

Social media technologies can be used as electronic learning tools. Students use these technologies not only for communication but also for sharing, searching, and creating information. Wang et al. (2012) consider the strengths of social media as personalised user profiles and wide accessibility that provides marketing, entertainment, and education for its users. Using social media as a learning tool is an informal way of learning through which students can search for resources and information in order to come up with new ideas and share their knowledge with others. Emerging technologies like social media and social media are tools for digital learners. This culture of learning enables users to learn not only through interaction with each other, but also by sharing their opinions and interests (Thomas & Brown, 2011). Social media technologies provide 'collective environments' for learners without any geographic or physical constraints that facilitate the peer-to-peer collaboration and learning. This feature distinguishes the collective environments from other non-virtual environments like schools or universities.

According to Selwyn (2007), the usage of social media technologies, as an informal learning tool, has been increased by people at both home and community. This informal learning plays a key role in the education system that can support learners of different age groups. This type of learning enables people to learn through conversing with others, observation, asking for help, listening to stories, or doing trial and error (Cross, 2007; Selwyn, 2007). In contrast to informal learning, in formal learning people need to attend institutions that are highly structured and provide classrooms and courses. Learners will receive degrees, diplomas, and certificates through formal learning. Informal learning was defined by Livingstone (2001:5) as "any activity involving the pursuit of understanding, knowledge or skill which occurs without the presence of externally

imposed curricular criteria". This type of learning occurs commonly in most people's daily lives. Therefore, utilising social media technologies could enable learners, specifically students, to develop their informal learning, which could eventually enhance their formal learning.

Although there is a growing rate of adoption of emerging social media technologies by the net generation, the gap between their needs and practices still remains a challenge for the higher education system. In this regard, Dabbagh and Kitsanta (2012:3) mentioned "higher education institutions are still primarily relying on traditional platforms such as course and learning management systems (CMS/LMS) that do not capitalise on the pedagogical affordances of social media". LMS's emphasise the formal curriculum rather than the networking element which is satisfied by social media to allow students to collaborate informally (Cho & Cho, 2014, cited in Rowell, 2019). Therefore, it is recommended that higher education systems increase their awareness of the potential benefits of using social media technologies and provide a learning space that enables students to manage their own connections to social networks and facilitate their learning activities over time and place. It is crucial to indicate that SM comes under the Web 2.0 umbrella as part and parcel of it (Techopedia, 2017).

3.2.1 Definition and history

3.2.1.1 Web 2.0

There is no single and common definition of Web 2.0 (Donelan et al., 2010). Kaplan and Haenlin (2010) stated that the term 'Web 2.0' was initially used in 2004 to express a new way that end-users and software developers utilise the World Wide Web (WWW). In other words, it refers to what is defined as a second generation of Web-based services providing online collaboration and sharing. This leads to new forms of user engagement supported by Web-based tools, services, resources, and environments. Web 2.0 encompasses several websites, tools, applications, and utilities that are enhanced by the social connectivity of WWW (Alexander, 2006). It is an evolved form of the WWW that provides a collaborative and participatory platform for all users to not only create and publish content and applications, but also to modify them.

Perry (2009: 51) defined 'Web 2.0' as follows:

"Web 2.0 is a category of Internet tools that effectively turn users into media contributors. The technology allows virtual communities to be built and opinion, knowledge and ideas can be shared. The potential for this has clear implications for not only social computing but also education, government

and business. Wikis, second life, blogs and RSS feeds are examples of facilities offered by Web 2.0.”

According to O'Reilly (2005), users add value to technologies that are designed around users' participation. This participation is what distinguishes Web 2.0 technologies from other technologies. Web 2.0 technologies enable users to generate content and make it a more interactive process (Lenartz, 2013). The key features of Web 2.0 technologies are being user-driven and having collaborative content, which are provided via sharing and openness of its platforms and services. According to Shuen (2008), Web 2.0 technology is about using the impacts of users' collective intelligence and networking in order to develop software and applications that motivate more people to use such tools. In this regard, social Web 2.0 is a community of practice where learning is characterised through interaction, collaboration, and sharing different ideas in order to develop rich resources and enable participants to learn together. Learning new information through technologies requires providing the feature of searching, creating, and collaboration for learners or users of such technologies (Renner, 2007; Thalheimer, 2008; Ferretti et al., 2009). Web 2.0 technologies are designed with modularity and flexibility that not only support social interaction and provide collaboration, but also allows for feedback, conversation, and networking.

O'Reilly (2007) stated seven core competencies of Web 2.0 technologies that can be applied to software, applications, and websites. They are:

- Services not packaged software, with cost-effective scalability.
- Control over unique, hard-to-recreate data sources that get richer as more people use them;
- Trusting users as co-developers.
- Harnessing collective intelligence.
- Leveraging the long tail through customer self-service.
- Software above the level of a single device.
- Lightweight user interfaces, developments, and business models.

Web 2.0 technologies have four main components which are: socialisation, externalisation, combination, and internalisation (Zhang et al., 2011). These components contribute different functions, as follows:

- Socialisation: Web 2.0 allows users to observe the web data and participate in a web community;
- Externalisation: Web 2.0 allows users to send out data (such as by writing emails, sharing information, teleconferencing, and uploading videos or audios).
- Combination: Web 2.0 allows users to use social bookmarks, share resources, and filter web content.
- Internalisation: Web 2.0 allows users to reflect Web 2.0 content on strategy implementation through simulation and sharing of best practices.

O'Reilly (2007) and Donelan et al. (2010) stated that Web 2.0 technologies include SNSs, social bookmarking, modification technologies, wikis, collaborative editing tools, blogs, and media-sharing services. However, as explained earlier, it is now time to visit the concept of social media, which is a part of Web 2.0. to understand its definitions.

3.2.1.2 Social media (SM)

According to Dabbagh and Reo (2011), the term 'social media' is used interchangeably with 'social software', and 'User Generated Content (UGC)'. Kaplan and Haenlin (2010: 61) defined 'social media' as

“a group of Internet-based applications that build on the ideological and technological foundations of social media and that allow the creation and exchange of user-generated content. It is a medium for social interaction as a super-set beyond social communication enabled by ubiquitously accessible and scalable communication techniques”.

Therefore, social media technologies provide a channel for collaboration, communication, and creative expression, which are the social aspects of the internet (Pazurek, 2021). Now, it is time to briefly look at the meaning of social media and some of its types. It is crucial to understand that SM has different meanings based on their major applications. In this point, Aichner et al. (2021) clarified “*it is essential to understand how the researchers defined SM and how results from articles that use different definitions can be compared*”. Moreover, SM is generally used as an umbrella term that describes a variety of online platforms, which will be soon introduced after providing a close meaning of SM. Simply, Salamatu (2021) defined SM as websites and applications enabling users to create and share content or to participate in social networking. In similar lines, Manning (2014) maintained that “*social media is the term often used to refer to new forms of media that involve interactive participation.*”

3.2.1.2.1 Types of social media platforms

Social media is classified into many types, as follows:

Social Media Platforms: They are electronic platforms over the Internet through which virtual social networks are built that allow people to communicate and form relationships with each other, examples of which are: Facebook, WhatsApp, Telegraph and Twitter.

Blogs: They are electronic content uploaded to the Internet and specialising in publishing activities, ideas, or beliefs related to a person or entity. Blogs can be created on the Internet for free through many websites; Like (WordPress) and (Blogspot).

Content Generating and Sharing Sites: They are websites through which certain content can be created online, and the type of content varies according to the kind of site. For example, sites specialise in designing and publishing images, such as Flickr, Pinterest, and Instagram. At the same time, others specialise in creating videos like YouTube. These sites are distinguished by their free content, where anyone can post content on it or access and view any content without paying any fees (DollarHide, 2021).

3.3 Use of Social Media Technologies in Higher Education

3.3.1 Adoption in the HE sector

Nowadays, the higher education system is affected significantly by social media technologies. Institutions and learners have started experiencing new approaches to learning by embedding social media technologies in the higher education system (Lenartz, 2013). The City University of New York (CUNY) is one of these institutions that started using social media technologies. According to Kaya (2010), CUNY used social media technologies to create a social network for students, staff, and alumni to communicate with each other via online communities and connect the university's campuses.

The Arizona State University derives benefits from using social media technologies in emergency situations. They use Web 2.0 and social media technologies like RSS, Twitter, and Facebook as online emergency alert systems to alert the university's members. The London School of Business and Finance is another example of an institute that has embedded social media technologies in its education system (Kaya, 2010). They use Facebook to deliver a Master's in Business Administration (MBA) course. The MBA's materials that are provided on Facebook are lectures, tutorials, discussions, and message boards for students. These materials are used to meet students' interests, motivate, and help them to register for the course.

In The United States, at Nevada State, the University of Nevada utilises social media technologies in their higher education system. Lenartz (2013:19) stated, “Las Vegas student Devin Valencia won a College Affordability Challenge grant for a Facebook application she developed to help students locate financial aid (Pratt, 2011). Ms. Valencia’s application links financial aid databases to the social networking websites Facebook, allowing students to search for financial aid, refer opportunities to each other, and announce aid they have applied for or received” (p.19). Michigan State University is another example of using social media technologies to enhance the higher education system. Their students use Facebook as a virtual learning community. According to Ellison et al. (2007), students maintain and develop bridging social capital at college via Facebook. This means useful information or new perspectives on a topic is provided by a member of a social network. Facebook is highly popular among students.

The Aalborg University in Denmark uses ‘Ekademia’, which is an open source social network platform. ‘Ekademia’ enables students to create networks between themselves and others in the field to communicate and collaborate during their studies in class (Lenartz, 2013). According to Ryberg et al. (2010), students use collaboration tools provided in ‘Ekademia’ for social interaction, collaboration, communication, and party invitations.

The use of social media technologies such as Facebook in the higher education system is opening up a new era for incorporating virtual actions, which are traditionally in line with the learning communities (Hilscher, 2014). This is a new practice in the higher education system for both students and lecturers because it can help maintain contact while incorporating various aspects of traditional learning communities. Moreover, SMPs can easily be adoptable in the HE sector by mature students and their teachers because they do not require advanced technical skills (Allen & Nelson, 2013).

3.3.2 Use by lecturers

Studies on the use of social media technologies among lecturers shows a generation gap with younger lecturers being more receptive to its use and older lecturers typically less receptive (Mwalimu et al., 2017; Kapidzic, 2018; Olasedidun & Ganiyu, 2020). Although one recent study was found in the Indonesian context that claims the opposite is true (Mardiana, 2020), one possible reason why older lecturers are less likely to use SM technologies is because they do not see much usefulness in them compared to their younger peers within the American faculties (Moran et al., 2011). Some specifically mention lack of empirical evidence to justify its use (Abbas et al., 2019). Even when they

do choose to adopt SM to support their teaching, many of them seek the aid of students proficient in using the technology in the Eastern Cape University of South Africa (Cilliers, 2017).

Older lecturers usually have longer and richer experience of teaching. They will have come across various technologies from time to time that eventually faded away, such as the language teaching laboratories in the 20th century based on the audio-lingual method (ALM) which were guided by the behaviourist approach to language learning (Gonzalez, 2008: 49). They see SM as merely another temporary innovation. In contrast, younger lecturers might view this situation of older peers being disinclined to use SM technologies as being due to lack of competence. Lack of skills may have been a prominent reason in the past (Provenzo et al., 2004), but with SM becoming more ubiquitous over time, it has been suggested that it is unlikely that even older lecturers will not have experienced using the technology in their own personal lives, and likely that more are now capable of adopting it in education than in the past.

However, there are recent studies that confirm the difficulties faced by older lecturers. For example, Alshabeb and Almaqrn (2018) found that lecturers in Saudi Universities often feel ill-equipped at times, and they often need the help of an IT administrator. Other explanations could be lack of awareness of the usefulness of the technology in Nigeria (Ebele, 2014), and resisting change because they perceive it creates more problems than the benefits it gives (Talukder et al., 2020). Incidentally, a study in Malaysia found that female students are also not fully convinced of the usefulness of these techniques (Al-Rahmi et al., 2018), also have issues with technological competence (Mishra et al., 2017), and according to Shelton (2017), even some younger lecturers lack awareness, so this perception is not confined to older lecturers. However, younger lecturers are reported to perceive benefits that justify adopting the technology, such as enabling them to communicate and interact with students regardless of their limited office hours and busy schedules (Cilliers & Murire, 2017). This convenience was pointed out by lecturers in South Africa, and it was the main reason for their being receptive to adopting social media.

As an example of SM use by lecturers, Aifan (2015) reported that a lecturer designed a Facebook page for students who enrolled in social studies courses at King Abdul-Aziz University, in Saudi Arabia, to display posters designed by students and exchange opinions about social issues in Saudi society. Language students heavily use and utilise social media technologies like Facebook, WhatsApp, and Twitter to express, share, and

convey their ideas (Aydin, 2012). However, researchers indicate that there is not enough empirical data to understand the reason that many people use YouTube as a learning tool. Therefore, utilisation of social media technologies for learning and academic purposes requires further investigation.

Regardless of the generational differences mentioned above, one factor that would probably compel all lecturers to adopt these technologies, is if they were formally included in the curriculum (Bikanga Ada et al., 2017). This can only happen if there is institutional support from senior faculty members, academic leaders, and university administrations. This could remain an impediment however for attitudinal and perceptual reasons, as according to Ademiluyi and Ademiluyi (2020), leaders consider the support given by lecturers online a waste of time. This view is not shared by all academic leaders, as there are some who do appreciate the role SM can play in facilitating learning (Alqahtani, 2019).

Regarding those lecturers who do actively use SM to support their teaching and students, it is noted that some of them make special hours available outside of their normal office hours (Ademiluyi & Ademiluyi, 2020). Some may have even abandoned the traditional office hour altogether in favour of interacting with students via social media, or at least dedicated an active online office hour and have been well-received (Cafferty, 2021). It is easier to reach students this way through social media and email (Smith et al., 2014). Uleanya (2020) claims this kind of initiative can have a beneficial impact on the self-confidence as well as the academic performance of students. One group of students that stands to benefit perhaps the most from this arrangement is that of shy students because the contact with the lecturer reassures them (Fitzgerald et al., 2018). In terms of learning, lecturers who do use SM are also those who encourage their students to learn independently (Aminatun & Oktaviani, 2019). The consequence of this is a transformation of their role from simply providing information to students to one in which they facilitate their learning (Moore et al., 2011).

3.3.3 Use by course and curriculum designers

Course and curriculum designers have noted certain benefits of adopting SM technologies. For example, Han et al. (2020) observed students are more active during online questioning and searching for answers online. Consequently, there have been calls among lecturers for reducing teaching time so that they can deliver more teaching online instead (Owston & York, 2018). More importantly, there are also academic reasons, such as its potential in enhancing knowledge (Rosenberg, 2001; Harris, 2009) that seems more

likely to be behind course designers incorporating SM technology and finding ways of integrating it (Retelny et al., 2016).

Issues surrounding formal integration of the technology have been investigated, for example, by Van Den Beemt et al. (2019). They found it would require teachers to have the necessary SM skills, more active engagement with content, their presence online on social media, and for them to provide alternative arrangements as well for reluctant students and formative feedback for all. On the part of students, it would be necessary for them to possess meta-cognitive skills so that they can use the technology in a focused way, and the institution would need to ensure transparency in communication, provide technical support, develop appropriate policies, and so on. Another important aspect highlighted by Al-Hunaiyyan et al. (2017) in their study on lecturers in Kuwait is a possible increase in workload for lecturers.

3.3.4 Predominance in particular fields

Irrespective of the issues related to course and curriculum design, it was gathered from the literature review that the use of SM technologies is predominant in two particular fields, namely language learning and medical education. Recent studies conducted since 2018 on their use in language learning include those by Alqahtani (2018), Alshabeb and Almaqrn (2018), Arndt and Woore (2018), Hasani and Hendrayana (2018), Buana (2019), Al-Ahdal (2020), Albahiri and Alhaj (2020) and Alrasheedi (2020). Additionally, investigations have been carried out on the development of language skills by using SM among non-language learners as well (Rachmawati & Cahyani, 2020; Thao & Dieu, 2020). This predominance in language learning may be explained by noting that all the aforementioned studies involved students learning English, including in an EFL/ESL context, and that English is the globally dominant language on the internet (Bokor, 2018). The case is the same for medical education, as suggested in studies by Santos et al. (2018), Wahila et al. (2018), Lahiry et al. (2019), and Ramage and Moorley (2019). Many more studies were conducted earlier that are too many to mention.

Suffice it to say, SM technologies have been applied particularly heavily in these two disciplines. It was also observed that many of these investigations were on the use of SM tools to aid learning. It may be that these students stand to gain the most from utilising SM to aid their learning, and this could be the reason why teachers in these two disciplines choose to provide or allow its use more willingly. Given these observations from the literature, further examination was made of perceptions and experiences in these two specific subject areas of language learning and medical education in section 3.6.3 further

on when considering these afore-mentioned aspects of the phenomenon. Seaman and Tinti-Kane (2013) also mentioned greater use of SM in the humanities and arts as a whole, but they did not find the same for medicine. Another field of study for which teachers and lecturers may find SM tool particularly useful is multicultural education because it can help students to become more respectful and inspired toward foreign cultures and customs (Hossain & Aydin, 2011).

3.3.5 Use by students

Ultimately, it is the use of SM technology by students that deserves greater attention due to their position of being learners and the consideration of how the technology may be beneficial for learning. Academic and other benefits of the technology are examined further on in section 3.5. As far as general reasons or justifications given for adopting the technology are concerned, researchers have noted, for instance, that it provides a wider range of information sources (Kim & Kim, 2017) that can supplement lectures (Ruggieri, 2020), which are otherwise difficult to understand (Retelny et al., 2012). On the other hand, Thompson (2003) for example, noted that some students are simply too lazy to get resources the traditional way through their library, since the advent of online sources of knowledge. This might be true, and the use of technology may be perceived as a convenience factor, but a more recent study was not found to support this other than one by De Groote et al. (2014), which showed the preference for using technology is due to time savings. Also, with increasing growth of the internet, and with it, the quantity of information sources, the issue of information quality has arisen (Kortemeyer & Droschler, 2021) which brings into question how and to what extent SM technology should be used in education. The issue also highlights the crucial role of lecturers or teachers in guiding and engaging students to use the right sources of information and other resources (Zanjani et al., 2016).

Usage patterns are also noted by other researchers. For example, Sutch and Klir (2017) linked increased usage with examination preparation times, and Li (2017) and Hautala (2019) both found that females are more active users of SM than males. The latter finding contradicts research by Williams and Adescope (2017) who found difference in usage of SM in education between the genders to be insignificant, but nevertheless, it is noteworthy given that it is mostly female students who tend to have safety concerns when using social media in education (Knott & Wassif, 2018). Additionally, Fitzgerald et al. (2018) noted greater usage among shy students, and the likely reason for this, as pointed out by Jacobi (2017), is that it gives them a sense of anonymity, while some may have social anxiety

disorder (Carruthers et al., 2019) in face-to-face (F2F) situations. Irrespectively, this is a promising finding because it shows these students can also be accommodated through SM technologies. This potential is of interest in the present study because shyness is not uncommon among Saudi students, and Al-Mansour and Al-Shorman (2012) noted that it affects lecturers' teaching due to the need to ensure such students remain engaged in learning. SMPs are used for expressing and conveying ideas (Aydin, 2012), so if shy students can utilise them to express themselves freely, then this is a benefit of these platforms in education. With an increasing dependence of students on smartphones (Park, 2019), it is likely that use of SM technologies will increase further in higher education by all students.

3.4 Theoretical Rationales for Implementing Social Media Technologies in Higher Education

Due to the increased use of social media technologies in recent decades, many studies have been conducted on the potential benefits of these technologies in learning education systems. For example, Ellison and Wu (2008), Garcia et al. (2015) and Lee and Bonk (2016) have examined the beneficial impact of using blogs to support teaching and learning, Hall (2017) investigated the potential benefits of using discussion blogs to support reflection in teacher education, Chu et al. (2012) examined how blogs can be used to support learning during internship, and Nayar and Kumar (2014) studied the benefits of cloud computing in education. Various benefits of social media tools or social media in education in general have been highlighted, for example, by Faizi et al. (2013), Househ et al. (2014), Panahi et al. (2014), Ventola (2014) and Chawinga (2017) on the benefits of social media in the health care profession in particular along with risks and best practices. The main factors that influence the rationale for implementing social media technologies in learning are students and the 'net generation', the paradigm shift in the nature of education, and students' interactivity. These are explored in the subsequent subsections.

3.4.1 Students and the Net Generation

In addition to differences within the teaching profession, opinions, and attitudes towards social media for educational purposes, and the willingness to use them, also differs across generations. This is precisely the phenomenon that Celik and Schoreels (2014) have examined in the context of developing countries containing four examples: Generation BB soon to retire. Generation X comprises older faculty members. Generation Y comprises younger faculty members and the majority of student participants; and Generation Z born in the Internet age but are yet to join a university. Reportedly,

Generation X lecturers often resort to the aid of expert students to implement SM technology in teaching (Cilliers, 2017). These students are referred to as Generation Z learners, or as 'millennials' (Drange (2014) who are the Net Generation, and Horvath (2016) described this situation between lecturers and students as a 'digital life gap'.

Apart from the expected observation of less use of SM technologies among the older generations, and that Generation Y comprises the most frequent users of social media for educational purposes, Celik and Schoreels (2014) found that generations X and Y were close in terms of awareness and willingness to change, but X exhibited more signs of concerns and hesitations, and Y also leads in terms of producing content. Video sharing and Facebook were the most popular platforms in both of these generations. Regarding BB, the researchers concluded that to promote social media use among BB, it would make them uncomfortable for finding it difficult to manage. Therefore, enforcing a strategy to do this would be futile. X and Y also faced some difficulties in terms of information flow across platforms, which would require standardising on a common platform to make it useful and manageable. Importantly, they also concluded that, regardless of generational differences in concerns and experiences, social media can be beneficial in education. These aforementioned findings show the need for institutional support, and to study both advantages and limitations of different social media platforms as well as to take privacy and security concerns into account.

Therefore, education in general and higher education in particular equip learners with agency and a sense of purpose, and the competencies they need, to shape their own lives and contribute to the lives of others. Thus, these newer generations of learners, referred as the 'Net Generation', at a later stage they become educational policymakers. They are defined by Tapscott (1998: 22-26) as follows:

“This wave of youth coincides with the digital revolution which is transforming all facets of our society. Together these two factors are producing a generation which is not just a demographic bulge but a wave of social transformation... And at this moment, tens of millions of N-Geners around the world are taking over the steering wheel. This distinction is at the heart of the new generation. For the first time ever, children are taking control of critical elements of a communication revolution”.

The Net Generation think differently and are willing to collaborate with each other and enjoy interactive learning (Tapscott, 1998; Oblinger, 2001). According to Prensky (2001), lecturers should consider the potential benefits of digital technologies in terms of learning and adopt new methods to facilitate the learning process, especially as the mind-set of the Net Generation has been changed by being involved in activities that digital technologies

provide for learners which equip them with well-developed skills. These features of digital technology to provide activities and equip learners with skills have reportedly been ignored in higher education. However, the Net Generation prefers learning and gaining knowledge through collaboration, engagement in activities, and instant feedback for thorough understanding of information. This claim of Prensky (2001) is supported by the study by Thompson (2013), which argued that social media technologies provide the Net Generation with interactive activities. However, it is not established whether the interactivity and collaboration merely support learning or lead to more effective learning. Nevertheless, the studies of Prensky and Tapscott about the generational gap is unsubstantiated and making such broad generalisations about children and young people is biased as their proprietary research conducted did not include a report of the methodology used. Additionally, the samples used were small in most cases and biases were not removed so the authors' generalisation that the digital generation, or millennials, learn differently than the rest of us, that it's a generational thing, and that technology is creating a generation of critical thinkers is suspect. Plus, most of the students in the samples were already sophisticated users of technology. Thus, their conclusions are not backed by sound research.

The Google generation, digital natives, or the internet generation are other significant terms used to refer to students in a school, college, or university. These terms express the importance of new technologies in the lives of the Net Generation who are deeply focused on the new developments in the technologies in the form of socialisation, work, communication, and education. In this regard, people who were born in the last two decades are highly affected and involved in new technologies, compared to those who were born before and are trying to manage new technologies as they provide convenience in their lives. Furthermore, the Net Generation is fast and active in receiving information by using new technologies. Significantly, despite claims that social media technologies are vital for learning among the Net Generation, this has not been thoroughly investigated by researchers. Therefore, the present study refers to the role of social media technologies in the learning of the Net Generation.

3.4.2 Paradigm shift in nature of education

It is obvious that SM is no doubt a powerful and advantageous educational technology tool for the present-day university students steeped in the digital culture. The role of social media technology users is active which means they are creators and authors of content (Calazzo et al., 2010). One example is the initiatives shift from teacher to student in the

new learning models where the active learning is emerging. Knowing that learners can use a Personal Learning Environment (PLE) to control their own learning through communication with others (Tomberg et al., 2013), users of social media technologies have this opportunity to choose which tools to use and which activity to undertake. Social media technologies encourage students to collaborate and interact with each other, which leads to highlighting their opinions. In other words, social media technologies provide a learner-centred environment for students. While social media is currently a prevailing technology in education and general life, Marr (2020) noted that it would likely be replaced in future to provide more individualised and immersive learning by using artificial intelligence. Furthermore, the transformation of the teaching strategies has become on according to these understanding. For instance, teachers focus on the creative and innovative aspects in the learning. They become more facilitator rather than solidly being the source of information, by giving the responsibility to the students and making the students more committed on their learning. Hence, the classical reward-punishment mechanism has been eliminated due to the changing nature of the learning (Yengin, 2010).

3.4.3 Students' interactivity

According to Sims (2003), there are five main areas that play a significant role in understanding the interactivity of online learning technologies. These five areas are: theory and research, communication and collaboration, educational psychology, technologies with a flexible online environment, and maintaining or designing a learning environment. Sims (2003) explained that one of the measures of the success of learners is to understand how they develop deep learning and meaningful engagement with the course participants, learning activities and course content. Hence, based on Sims' (2003) description of interactivity, an important mediated technology is needed to enhance the interactivity in learning.

In this case, social media technologies enable students to increase their engagement in the learning process by providing them with opportunities to participate in various learning activities. The difference provided by social media is with respect to interactivity and engagement to support learning. In this regard, Carnaghan et al. (2011) stated that participation is linked to engagement. Furthermore, O'Reilly (2005) refers to the term 'architecture of participation' as a community of social media technology users who participate together to develop and create content of social media. In other words, social media technologies enhance the 'architecture of participation'. This term is used by Wheeler et al. (2008) who stated that using social media technology helps participants to

build a community of practice by developing new content. Moreover, students can enhance their learning by using social media technologies. Vlachokyriakos et al. (2014) argued that participation not only leads to more interactivity but also enhances decision-making in the learning process. Participation is one factor of social media technologies that encourages students to be more involved in the learning process. Although social media technologies are believed to enhance students' learning, Vlachokyriakos et al. (2014) stated that there is a lack of research on the use of social media technologies by students and how they impact students' participation and involvement in the learning process. Building a 'community of practice' provides learners with an intensive learning process and learner-centred learning (Malhiwsky, 2010). Students can enhance their learning and potentially benefit from these features of community as an effective learning environment.

3.5 Educational Implications of Using Social Media Technologies

This section of the literature review examines what other researchers have found to be the potential educational benefits and drawbacks of using social media technologies for educational purposes. These are classified into different areas of benefits and drawbacks under the following main sub-sections:

- Potential indirect educational benefits: It covers studies that are not directly related to educational benefits, such as personal and social benefits that may facilitate learning.
- Potential direct educational benefits: It covers studies that are directly related to educational benefits in the areas of knowledge, learning and pedagogy.
- Drawbacks, challenges, and conditions: It covers studies that show there are drawbacks to using social media in education, challenges that may arise, and conditions considered necessary for the tools to be effective.

Summary tables are then given at the end listing all the benefits (Table 3.5) and drawbacks (Table 3.6) the researcher came across, along with the studies that examined them, including pedagogical benefits and implications. Overall, social media technologies have three main potential benefits for the education system which are Collaboration and Communication, Engagement and Interaction, Gaining Knowledge, and Information. These potentials are supported by researchers, such as Gao et al. (2012:783) who claimed microblogging "has a potential to encourage participation, engagement, reflective thinking, as well as collaborative learning under different learning settings" based on a

meta-analysis of 22 prior studies, and Dougherty and Andercheck (2014:95) who claimed Facebook is “a powerful tool for community-building and learning” based on an evaluation of 170 students.

For giving an overview of benefits and drawbacks, the SWOT (strengths, weaknesses, opportunities and threats) analysis conducted by Schroeder et al. (2010), which is presented in Table 3.2 below, may be useful, despite this analysis having been conducted one decade ago. After analysing data from 20 social software initiatives in further and higher education institutions in the UK, the researchers summarised their findings in the form of this SWOT analysis in which they identified three areas of strengths, three of weaknesses, two opportunities, and two threats. For the purpose of this study, the identified strengths and opportunities may be considered as benefits, and the identified weaknesses and threats may be considered as drawbacks or challenges. In particular, the strengths of improved learning are examined in section 3.5.2.2, enhanced communication in section 3.5.1.2; the opportunity of creating a community under 3.5.1.1; the weaknesses of disruptive interaction and limited socialisation in 3.5.3.3, and workload issues in 3.5.3.4, and the threat of illegitimate use under 3.5.3.5.

Table 3.2: SWOT analysis of using social media in education

Strengths	Weaknesses
Building of social relationships (Community spirit, overcoming isolation, support mechanisms)	Workload issues (of educators and students)
Improved learning (Collaborative, reflective, independent, communication skills)	Limitations in quality of interaction (Selective or disruptive interaction among students, limited socialising, lack of trust in peer feedback)
Enhanced communication (early intervention, timely feedback/support, improved relationship, better understanding of needs)	Uncertainties of ownership and assessment (Assessment of collaborative activities, ownership issues of content in public or collaborative spaces)
Opportunities	Threats
Showcasing work to the public (Giving students the incentive to create high quality, contribute to employability)	Unable to support and ensure reliability of applications (Difficult to ensure reliability of service, difficulty to adapt publicly available tools, misappropriation, or disappearance of resources)

Creating and maintaining communities (Development of alumni communities, social software tools help to foster cross-institutional collaborations)	Consequences of illegitimate use (Publishing of illegitimate content by students may affect institution's credibility, need to protect student spaces and their interactions from outside interventions, need to protect student anonymity)
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Source: Schroeder et al. (2010)

3.5.1 Potential indirect educational benefits

This subsection examines studies that claim there are benefits to using social media in education in the form of personal and social benefits that can facilitate learning. These are classified further under 'cooperation and collaboration', 'communication and interaction', and 'engagement and motivation'. Two of these categories were identified explicitly by Hong (2008) who found blogs have great potential for enhancing communication, fostering critical thinking, and encouraging collaborative learning.

One of the studies examined in this literature review identified several advantages to using digital technologies including social media in university teaching and learning based on a survey of 1,658 undergraduate students that covered multiple categories, by Henderson et al. (2015). They identified 11 distinct benefits, which include flexibility of time and place, ease of organising and managing study tasks, opportunity to learn in more visual forms, and ability to replay and revisit teaching materials. Similarly, Harris et al. (2009) identified several advantages and disadvantages of social media technologies in the classroom context, including students become part of the lesson, the world becomes the classroom, the classroom is made available 24/7, and there are benefits in terms of collaboration and increased learning. On the other hand, some disadvantages include the requirement for computing resources to be available, the possibility of web resources to be vandalised or sabotaged, discomfort due to the openness, and the risk of plagiarism. Since these disadvantages were faced over a decade ago, it could be that some of them, particularly the technical challenges, are no longer widely applicable in present-day classrooms. Other studies are more focused on specific benefits and are therefore examined under the classifications made.

3.5.1.1 Cooperation and collaboration

One of the main potential benefits of social media technologies is that they boost collaboration. For example, Al-Rahmi et al. (2014) showed that social media affects collaborative learning and interaction with peers and the supervisor positively and significantly, including engagement and perceived ease of use and usefulness.

Collaboration means working together intellectually and socially to achieve common goals. Social media technologies provide an online learning community that enable students to work together in groups towards a common goal (Mattessich et al., 2001; Faizi et al., 2013). In other words, social media technologies provide a collaborative and cooperative learning method. However, such learning methods require thorough instructions provided by lecturers to maximise the potential benefits of social media technologies in learning for students by making them active participants rather than passive ones. Collaboration may be defined as working with someone intellectually and socially to achieve common goals. According to Mattessich et al. (2001), within a learning community that uses social media technologies, collaboration means using any types of instructional method that enables students to work together in groups to achieve a common goal. Therefore, collaboration in learning encompasses all group-based instructional methods, including cooperative learning.

Collaboration incorporates three main factors: interaction, participation, and synthesis (Ingram & Hathorn, 2004). In other words, collaboration in educational settings needs students to act beyond merely dividing up tasks and assignments. True collaboration involves asking students to work together in shared tasks, and independently producing separate parts of a project. Moreover, Prince (2004) stated that the main factor of collaborative learning emphasises student interactions rather than learning as a solitary activity.

Considering the potential of collaboration in enhancing the learning process, social media technologies provide great platforms for educators to collect and share resources and information from both external and internal networks. Users of social media technologies, who could be students, educators, or any other types of learners in the community can develop their own learning content and potentially benefit from collective knowledge. Therefore, social media technologies are potentially an effective means of creating collaborative channels among students and between lecturers and students. Social media technologies provide collaborative platforms that enable a shift from concentrating on individual processes of learning, as in classical instructional models, to collaborative processes of learning that enable individuals to think collaboratively and produce knowledge. Collaborative content tools provide a single destination that enable people to examine their ideas with each other and publish them in a way to be revisited and revised.

According to Dawley (2009) and Agosto et al. (2012), working in groups with other people and being actively involved in the learning process using what they called 'social

network knowledge construction' enables students to learn more, to learn better, and to retain it longer than in other instructional formats. They attributed this to the impact on the thinking process and stressed the need for new pedagogies to integrate these emerging communication mechanisms effectively into the learning environment. Their research focused particularly on the potential of 3D virtual world environments such as Second Life as the social networking technology. Furthermore, they claim that collaborative environments enable students to enhance their problem-solving skills. Thus, social media technologies could enable students and learners to work collaboratively on projects beyond an individual's capability, which appears to be consistent with Vygotsky's theory of social constructivism.

Collaborative social media technology tools include websites like YouTube and Facebook; and applications like WhatsApp and Twitter that allow multiple users to work and exchange their ideas on the same content. Facebook and WhatsApp are unique as they enable multiple users to participate and edit contents. In addition, lecturers can potentially benefit from these technologies to verify the participation of various group members.

True collaboration includes three main factors which are participation, interaction, and synthesis (Ingram & Hathorn, 2004). In the educational context, collaboration means students move beyond merely dividing up assignments, working together on shared tasks, and also independently produce separate parts of an assignment. In this respect, researchers claimed that the main factor of collaborative learning is the emphasis to be on students' engagement and interactions rather than only on learning as a solitary activity (Prince, 2004; Dawley, 2009; Faizi et al., 2007). Therefore, there is a need to investigate this potential benefit of social media technology in the education system.

Considering the importance of engagement and interaction, collaboration, in the learning process, social media technologies provide a platform for learners, who could be educators, students, or any other individual in the community, to collect and share resources and information from both internal and external collaboration networks. To guide this collaboration so that learners take advantage of collective knowledge and create their own learning contents, Aghili et al. (2014:191) suggested applying a CoI (Community of Inquiry) framework to social network platforms, as it "provides meaningful environments for collaborative knowledge construction among students", as it makes teaching "influential in promoting students' academic engagement and higher order thinking skills".

3.5.1.2 Communication and interaction

Greater or more effective communication and interaction among students, and between students and their teachers or lecturers, is one area in which many studies have reported benefits and justified the importance of utilising SM tools in education. This is evident from the long list of studies on communication and interaction in Table 3.5 in section 3.5.4.1 further on. Some recent studies include those by Chawinga (2017), Subramanian (2017), Oueder and Abousaber (2018), and Stathopoulou et al. (2019), but, as for engagement and motivation, studies on this aspect of SM use in education were conducted at least as early as 2006. This subsection examines a select number of these studies to establish this importance.

It is typically thought by researchers that greater interaction and effective communication between students, and between lecturers and their students, is one major factor that leads to an enhanced learning experience. Given that lack of effective communication and interaction is an issue among Saudi university students, especially among language students (Turjoman, 2016; Asif, 2017), and between opposite genders (Alkahtani, 2012), it may be beneficial for teachers to consider providing SM tools to their students. As pointed out by Subramanian (2017), SM is having an increasingly profound influence in improving interpersonal communications, which can be taken advantage of in education. Importantly, interaction is a cornerstone of social constructivism, as it is considered in Vygotsky's theories to play a fundamental role in the development of cognition.

Social media technologies are known to increase interactivity among users, and interactivity is considered a key to success in learning in a traditional classroom (Buqawa, 2015). It helps, for example, in improving interpersonal skills (Ansari & Khan, 2020), by increasing confidence (Hennessy et al., 2016; Uleanya, 2020), and making students feel more comfortable as part of a group (Alshammari et al., 2017). It is important however, that the communications and interactions are guided to ensure they support learning, as otherwise not all students are constructive during online discussions (Venter, 2020).

In the study by Buqawa (2015), the researcher adopted a mixed-methods research design and conducted four separate investigations into the use of web polls and Twitter to provide interactivity. The responses show that interactivity using social media technologies had an overall positive impact on students' learning experiences, and that interactivity inside the classroom using web polls had a greater effect on their learning than interactivity outside the classroom using Twitter. Furthermore, the participants perceived using social media technologies for interactivity positively concerning communication between

students, their own motivation and engagement, and their instructor's credibility. Overall, their attitude toward using social media technologies was positive, thus pointing to their potential in supporting learning in HE.

Lack of efficient and proper communication can affect both lecturers and students in their teaching and learning, respectively (Faizi et al., 2013). Therefore, students need to be monitored by lecturers to be aware of any miss-communication. Identifying factors that lead to such miscommunication, such as fear and confusion, could help the faculty not only to understand the learning difficulties of students, but also to solve the difficulties and improve students' learning. This means the more communication that takes place between lecturers and students, the more willing lecturers would be to help students learn better and quicker. In this respect, Ingram et al. (2004) stated that poor performance and erratic behaviour of students are issues for many educational institutions. This could be partially due to the lack of 'connection' between lecturers and students. Faizi et al. (2013) showed that such problems can be addressed by using social media as communication channels. Furthermore, studies reveal that poor communication between both sides in teaching and learning can result in thin or vague feedback. Thus, proper communication between lecturers and students could remedy this problem.

The fact that the majority of social media technology users are students who use these technologies to communicate with colleagues, friends and family, it is important to investigate the potential benefits of such technologies for modern education. These technologies could potentially be used to enhance communication between different parties involved in the education system, such as faculty, staff, and students.

Twitter, Facebook, and WhatsApp can be used as backchannels for communication between lecturers and students, among students, and among lecturers. These tools can also be used within or between classes. Lecturers can use a WhatsApp Group page, Twitter feed or Facebook page to answer students' questions, post lesson plans and homework assignments, send messages and updates, inform students about special lectures, guest speakers, or panel discussions, extend in-class discussions, schedule or announced forthcoming events. This lecturer-student interaction and communication will not only enhance the understanding of various learning-related difficulties, but also reduce the time for solving such difficulties.

Moreover, if the communication and interaction are directed properly, it could lead to sharing of useful information (see 3.5.2.1) and engaging in productive discussions. Chawinga (2017) investigated the perceptions of 64 students towards the use of blogs and

Twitter in their classroom based on a survey and analysis of their comments while using the social media tool. The results show that “if appropriately deployed, Twitter and blogs are catalysts for the much-hyped learner-centred approach to teaching”. When they used these technologies, they were found to share and discuss their course materials, post their reflections on the course, and interact among themselves, and with their lecturers.

As mentioned, social media technologies can improve communication between lecturers and students, as well as among students (Lin et al., 2006; Faizi et al., 2013). Students can use SM technologies, such as WhatsApp or Facebook Messenger, to talk to each other, for instance, about upcoming assignments, and get details and requirements of one or more assignments from their classmates. Furthermore, students can also use these collaborative tools to communicate with their classmates to get assistance at any time if they have difficulty with a certain topic. Faizi et al. (2013) mentioned that this communication advantage allows for interaction within a matter of seconds, and for promoting engagement among students, which could enable them to express their creativity and voice their opinions. The advantage of engagement is examined next.

3.5.1.3 Engagement and motivation

Engagement and motivation play an important role in the learning process. Engagement is defined by Kuh (2009: 327) as “the time and effort students devote to activities that are empirically linked to the desired outcomes of the college”. Researchers state that engagement includes involvement in activities and working with peers either inside or outside a classroom (Pascarella & Terenzini, 2005; Kuh, 2009). Given the importance of engagement and motivation among students, teachers and lecturers are likely to be interested in adopting tools and techniques that can help to improve these conditions in students.

More active involvement, or improved motivation and engagement are common themes in the literature on non-academic benefits of SM technologies in education. Some recent studies include those conducted by Hennessy et al. (2016), Forbes (2017), Jacobi (2017), Sutch and Klir (2017), Wahila et al. (2018), Cheng et al. (2020). On the other hand, for Whelan et al. (2020: 869), it is not always the case as their “results suggest a strong association between boredom proneness and both information and communication overload, which, in turn, are strongly associated with social media fatigue”. Hennessy et al. (2016), conversely, stated that it also helps to relieve anxieties and raise students' morale. Motivation is also particularly necessary in the case of shy learners (Fang, 2008).

Irrespective of the reason, it is established that motivation is an important consideration in social media-based learning (Hartnett et al., 2014).

Social media technologies could therefore play an important role in increasing students' engagement in the learning process. There are many studies that claim social media does improve engagement (Dron, 2006; McLoughlin et al., 2007; Yazzie-Mintz, 2009; Carnaghan et al., 2011; Fine, 2011; Junco et al., 2011; Gao et al., 2012; Petrovic et al., 2012; Rutherford, 2012; Evans, 2013; Aghili et al., 2014; Al-Rahmi et al., 2014; Northey et al., 2015; Hennessy et al., 2016; Alshuaibi et al., 2017). Only a few studies could be found that suggest otherwise (Junco, 2012; Dyson et al., 2014).

Notably, the same researcher in a study conducted one year earlier, namely Junco et al. (2011), after conducting an experimental study to determine the effect of Twitter on engagement and grades, found its experimental group had a significantly greater increase in engagement compared to the control group, and also higher average grades. Their later study thus contradicts their own earlier findings, which makes the impact uncertain. In his later study, Junco (2012) found that using Facebook was significantly negatively predictive of engagement scale score, but positively predictive of time spent in co-curricular activities. Similarly, in the study by Dyson et al. (2014), a Facebook intervention failed to yield "higher self-report of course engagement or understanding" for the selected portions of the course. However, lower engagement and understanding was reported among those who never viewed Facebook.

Considering these results, the researchers advocated achieving better integration of Facebook with lecture material although they acknowledged that interaction is complex presumably in recognition of its potential benefits in engaging students. It can therefore be safely assumed that higher or improved engagement is a very likely outcome of utilising social media in education, as long as there is proper integration. It is also established that students are more likely to be engaged if they participate in both F2F and on-campus classes and asynchronous online learning compared to those who only attend F2F classes (Northey et al., 2015). Being more engaged can impact on related areas as well. For example, lecturers who use social media as part of their teaching plan notice a positive increase in students' engagement and collaboration in the classroom, building of better communication skills among them, and an increase in their technological proficiency (Fine, 2011).

Oradini and Saunders (2008) also conducted research on the use of social media technologies by students in the University of Westminster in the United Kingdom. The

results of the two aforementioned studies show that students benefit greatly from using social media technologies in various academic related activities, such as for staying in touch with classmates, supporting content learning, publishing blogs and presentations, and keeping knowledge up to date. Furthermore, lecturers encouraged their students to use such technologies as it helped both sides to communicate better. Miah et al. (2012) conducted a survey on a group of students who indicated that social media technologies were helpful in their education in terms of doing their homework and practising extracurricular activities.

Using tools such as YouTube, Google Apps, Twitter, or Facebook for education would provide a platform for students to get access to valuable learning resources regardless of place and time. For instance, Facebook also provides an opportunity for instructors to enhance their motivation with students as it enables students to upload their homework, connect with their lecturers outside classrooms and find their university and faculty announcements (Mazer et al., 2007). Providing such resources and additional learning materials for students can be logistically complicated, very expensive, and time-consuming within the traditional education system. However, social media technologies can enhance the learning experience (Rutherford, 2010; Yazzie-Mintz, 2010). These technologies provide social learning platforms that enable students to participate in the different learning activities, which means supporting and increasing academic engagement, interaction, and motivation by extending the amount of time spent by students in doing academic assignments.

Students usually complain of getting bored in classrooms, so the dynamic nature of social media technologies may be used to increase their engagement and interaction with each other while learning (McLoughin et al., 2007). For instance, Twitter, Google Docs, and Facebook can encourage and enable students to become active participants rather than passive consumers of contents. Studies reveal that the main factors that make students bored and reluctant to be more involved in academic engagement is the lack of relevant and interesting materials provided in classrooms and lack of interaction with their lecturers (Yazzie-Mintz, 2009; Ebner et al., 2010; Faizi et al., 2013). It is also possible that this is due to the quality of the lecturers and their teaching abilities, so these possible causes of boredom and reluctance should also be considered. Some lecturers are even willing to take measures, such as assessing their students' participation online, if it helps them to be more motivated and engaged in their learning (Oh et al., 2020).

According to Yazzie-Mintz (2009), learning methods that involve working with peers are the most useful and instructional methods that lecturers can use in their classrooms. In this regard, social media technologies can be useful in enhancing behavioural engagement of students by enabling lecturers to design learning activities that are both interactive and social, such as teamwork and discussion. This would enable students to increase their engagement and interaction with other students, even those from other learning institutes, and learn from each other. However, this also raises the question as to why interaction and engagement are not promoted in traditional classrooms without the aid of technology, and whether social media technologies alone can make a difference by enhancing teaching and learning or if, for example, the mindsets of lecturers also need to be given attention to make them accept more creative, innovative, and technology-based teaching methods.

Rutherford (2010) stated that social media technologies not only increased engagement of students but also enhanced the number of interactions that they may have with their lecturers by overcoming the barriers of location and time. This means students would have better opportunities to develop supportive relationships with their lecturers including asking questions, making comments, and getting feedback. For instance, a Facebook page created by a lecturer to discuss course materials and resources will provide this opportunity for students to discuss different ideas and get feedback not only from their lecturer but also from their classmates.

Evans (2013) specifically investigated if social media can enhance learning in higher education using a sample of 252 business and management undergraduates in which the Twitter tool was used for communicating with the tutor and other students. Factor analyses were conducted on the students' attitudes and experiences. The results showed improved engagement among the students although a direct impact on learning was not established. However, the students found that using a SM tool helped them comprehend the topic better.

Rutherford (2012) stated that social features of social media technologies increase attention of students to the learning opportunities provided by their educational institutions. Furthermore, the research indicated that students who do not like to participate in class may feel more comfortable to collaborate with their classmates, express themselves, share their ideas and resources on Twitter, WhatsApp, Facebook, or YouTube, and actively engage in constructing their learning experience (McLoughlin et al., 2007; Rutherford, 2012).

Social media technologies are an effective and constructive means to create collaborative channels among students and between lecturers and students. Social media technologies provide social collaboration platforms that facilitate the users in producing knowledge and intelligence collaboratively (Johnson, 2011; Faizi et al., 2013). This is a shift from classical instructional models that focus on individual processes of learning. In other words, this collaboration means engagement, motivation, and interaction of users on the same project to share their ideas, examine them together, and publish them in such a way that they can be revisited and revised. To reiterate, studies indicate that being actively involved in the learning process and working in groups enabled students to learn better, more, and retain information longer than in other instructional formats (Dawley, 2009; Ebner et al., 2010; Agosto et al., 2012). Although students can acquire information on their own, more involvement and engagement in a collaborative environment could better enhance their problem-solving skills. In other words, social media technologies have the potential to increase the engagement of students and enable them to work together on projects that would otherwise be beyond an individual student's capability.

Arquero et al. (2011) conducted a survey on the usage of social media technologies among students at the University of Granada in Spain based on a sample size of 105 out of 160 registered students. They stated that 83% of students significantly used social media technologies and 88.35% preferred to use such technologies in their learning process rather than using the traditional methods. They indicated that students indicated that social media technologies helped them to improve their thinking, enhanced their ability to express their opinions, and facilitated their skills in team work to accomplish group-assignments.

3.5.2 Potential direct educational benefits

As mentioned earlier, social media (SM) technologies are platforms and tools that are claimed to facilitate participation, discussion, generating and sharing both information and knowledge online in a convenient manner. In other words, it is the social use of the Web by people to be involved in creating content. The rapid growth of social media technologies has impacted on the personal and professional lives of people (Faizi et al., 2013).

This subsection examines those studies that claim there are direct educational benefits of using SM that affect learning. These are classified further under 'gaining knowledge and information sharing', 'enhancement of learning and other academic benefits', and 'pedagogical benefits and approaches'.

3.5.2.1 Gaining knowledge and information sharing

Gaining knowledge and information is a key component in the educational process, which has not been sufficiently discussed in studies related to the impact of social media technologies on learning and teaching in the higher education system. The Cambridge Dictionary defined knowledge as “understanding of or information about a subject that you get by experience or study, either known by one person or by people generally” (Cambridge University Press, n.d). In other words, knowledge is a contextualised form of information which is an understanding and awareness of something or someone. It can be acquired through education or experience, by learning or perceiving.

Social media technologies provide a platform that not only retrieves information for their users, but also enables them to be actively engaged in creating knowledge and providing comments and feedback (Dron, 2006). In other words, these technologies enable their users to actively create content, including information and knowledge, and have space for collaboration, interaction, and discussing different ideas. Creating and sharing information and knowledge is a main feature of social media technologies that differentiates them from pre-social media technologies. Researchers (McLoughlin & Lee, 2007; Hargadon, 2009) have investigated different characteristics of social media technologies and indicated five main categories, which are:

Mass participation

Long tail (demand-based services in which realisation of profit is through monthly subscriptions)

- Rich use experience (emergent information that allows users to provide input and is responsive to this input)
- Software as service
- Folksonomy (resource for users to collectively find and classify content)

People can potentially benefit from using social media technologies in many ways, such as easier access to knowledge, collaboration facilities, participation and learning, and extensive information sharing (McLoughlin & Lee, 2007; Tawalbeh, 2021). Furthermore, these technologies enhance sharing experiences through providing a huge space for the users. Given that students and lecturers are key users of these technologies, social media as a social media technology has greatly influenced many educational systems in terms of teaching and learning. In this regard, Ulbrich et al. (2011) stated that the Net generation collaborate, learn, and use social media technologies efficiently because they are

accustomed to using them. Traditional approaches to developing knowledge based on teaching and learning without using any technology or using pre-social media technologies contrast with the values of the Net generation when they start at university. Ulbrich et al. (2011) argued that many of the learning techniques that have worked for decades do not work any more because the Net generation learn and study differently. For instance, they work collaboratively, execute many tasks simultaneously, and use social media technologies for acquiring knowledge and information which lead to learning. It would be a huge and unsubstantiated claim to make those traditional methods are no longer effective, but it might be safe to claim that the newer generation of students are accustomed to using social media-based technologies and therefore expect to utilise them during the course of their learning.

According to Siemens (2004), the learning system is significantly transformed by adopting social media technologies in higher education. Some available social media technology tools to be used in the learning system are Facebook, Twitter, WhatsApp, and YouTube. These tools are further discussed in Section 2.4.3. Traditional pedagogies and learning concepts can be changed by implementing social media technologies in the education system because of the features of these technologies which are responsive to the users' feedback (Dron, 2006). In other words, these technologies enable students to work constructively and cooperatively to explore innovative solutions and new ideas in relation to existing issues in different fields. Social media technologies provide an opportunity for teachers to put more responsibility on students to initiate interaction, collaboration, and dialogue on economic, political, social, and organisational issues.

Another potential benefit of social media technologies is providing opportunities for their users to improve their interaction and engagement with other users by sharing information. This feature plays a key role for students in the higher education system as it could enable them to increase their knowledge and thereby enhance their learning experience. According to Merchant (2009: 10-11), social media technologies have four main characteristics which are Modification, User-generated content, Presence, and social participation.

- Modification – “Web 2.0 tools allow the users the opportunities to modify their website page and account with more information and pictures.” This feature provides more information and makes it easily accessible although it does not, by itself, amount to more learning.

- User-generated content – “Web 2.0 tools provide a user-centred environment, where the users are the producers of the content. For example, Wikis help users to generate the content in order that the interested users interact and collaborate in the topic.” The effectiveness of user-generated content would depend on the nature of the content and the disciplinary knowledge base.
- Presence – “Web 2.0 tools provide the users with the facilities to have an account under Twitter, Facebook, and Blogs, in which the followers can follow and interact with each other through these technologies. The users are actively engaged via uploading videos, pictures, events, information etc.” However, differentiation could be an issue because users may not be able to discriminate between good and poor sources of information and knowledge.
- Social participation – “Web 2.0 provides the users with the tools so that they can participate in different activities through them” (Merchant, 2009). According to Carnaghan et al. (2011), “the more the users participate, the more they are engaged”.

Petrovic et al. (2012) conducted a survey on a sample of 68 students at the University of Belgrade in Serbia to investigate the impact of using Facebook on gaining knowledge. The results showed that most of the participating students reported an improvement in terms of gaining more knowledge, participation in teamwork and projects, and changing their behaviour patterns in the learning process. It could be that some students only seek to obtain the handouts and notes from their lecturers, which are then filed away instead of absorbing the information from them in reflection of the wider consumer society. The extent to which the information translates into knowledge and learning would require more research into the motivation of the students and the learning behaviours.

Regardless, using social media technologies, like Facebook, can potentially enhance the traditional education system. According to Opus and Abbitt (2009), many students in the higher education sector in the USA use Facebook as an educational environment that provides an enhanced educational process, especially when it is associated with targeted activities and based on the needs and perceptions of students. Tiryakioglu and Frzorum (2011) stated that lecturers at universities are aware of the potential benefits of using social media technologies for students in acquiring knowledge and improving their understanding; therefore, they suggested adopting such technologies in education.

3.5.2.2 Enhancement of learning and other academic benefits

A few studies claim that social media can enhance learning to the extent of leading to academic benefits, specifically in terms of improved grades or scores (Tezer et al., 2017; Lahiry et al., 2019). Closer inspection however, revealed that none of them conducted an empirical investigation in which a definite positive correlation or association was established between social media usage and a quantitative outcome indicating academic achievement. In an empirical study, engagement from using Twitter, was found to facilitate communication, raise morale, and relieve anxieties, but there was negligible correlation between viewing frequency and examination scores, and no correlation between contribution frequency and examination scores (Hennessy et al., 2016). A 2013 review of the literature by Tess (2013) also noted that the claimed effectiveness of social media is largely based on self-reported data from surveys and questionnaires. These studies may therefore only suggest a potential of social media to benefit students in terms of learning. Nonetheless, this is a potential that is likely to appeal to teachers due to the critical importance of improving learning and making this improved learning show in the form of improved grades.

In the Tezer et al. (2017) study, the positive correlation established by the researchers was actually between frequency of social media usage and attitudes of prospective teachers towards social media and the academic achievement of their students. Lahiry et al. (2019) did attempt to quantify an association between social media usage and academic performance, but the results of the 650 medical students involved were based on self-rating. The focus was on their perspectives of how social media affected their interpersonal relations and academic performance, and their patterns of social media usage. Less than two-thirds (60.87%) of the students regarded SNSs as having had a positive impact on their academic performance.

In the study by Alamri (2019), the lack of evidence for academic benefits was explained by suggesting that students with higher grade point average (GPA) scores tend to focus on learning from textbooks, class notes, and other materials provided by the instructor rather than social media tools, which are mostly used for entertainment activities. This was also the finding in a study by Al-Qoot and Abu-Jado (2016) in which students had neutral perceptions of the value of social media concerning possessing knowledge and being creative. Alwagait et al. (2015) found through a survey involving 108 respondents, a similar ambivalent response, that the case is the same for the academic performance of

students in Saudi Arabia. Notably, time management was an issue that affected the students negatively.

Importantly, some studies have also reported negative impacts of using social media on learning. For example, Paul et al. (2012), Ravizza et al. (2014), and Leyrer-Jackson and Wilson (2018) reported statistically significant negative associations between the amount of time spent using social media and the academic performance of students based on their GPA scores. This may bring into question the quality of the time spent using social media and how well it was directed to support the learning of those students involved in the aforementioned studies. Similarly, Alwagait et al. (2015) found that excessive use of SM can affect the academic performance of students negatively, especially by creating issues with time management. The study highlights the need for balance in information exchange, academic performance, and leisure.

Nonetheless, Buqawa (2015) argued that having evaluation criteria to assess the progress of social media technologies being run in the classroom is significant as part of the whole teaching and learning process. This can also be useful in monitoring the usage of social media technologies in the classroom to gauge students' feedback and opinions, which can be used for making any required improvements. However, this raises two issues. Firstly, technological progress does not itself indicate improvements in teaching and learning processes, and secondly, usage of social media technologies does not necessarily lead to improved learning. Therefore, the effectiveness of these technologies must be considered and the way they are implemented to support teaching and learning.

Nonetheless, educational institutions can potentially benefit from using social media technologies to improve their quality of education and enhance diversity in terms of skills and experience. These technologies provide students opportunities for engagement and interactive learning. Panckhurst (2013) investigated the participatory environment of students created by using social media technologies in the University of Montpellier in France. The research stated that social media technologies can be used to increase the efficiency of learning in the educational environment, especially when lecturers and students are, respectively, following a well-structured and organised network for teaching and learning purposes. An appropriate structure would need to be maintained by the education administrators and course organisers.

What seems more likely is that there are mediating factors that make social media effective in having a positive impact on academic performance. One study that suggests this was conducted by Alshuaibi et al. (2017). They found that the relationship between

social media and academic performance is mediated by cognitive engagement, but not behavioural, emotional, and agentic engagement. Their findings suggest social media has potential in a learning environment “as it promotes cognitive engagement of students in class and subsequently their academic performance and success” (p.625).

3.5.2.3 Learning benefits in specific fields

A number of the studies that identify benefits of SM relate to specific fields of study (see 3.3.4). It may be appropriate to examine these separately in case social media happens to be more beneficial in these fields. The studies examined below include Petrovic et al. (2012), who examined the potential of social media in environmental education, and Al-Shdayfat (2018) in the field of medical education. Many more studies, however, have been conducted involving language learners for whom several potential benefits of SM have been found in previous studies. For example, SM technologies have helped to overcome pronunciation hurdles and improve pronunciation skills (Al-Ahdal, 2020; Rachmawati & Cahyani, 2020), improve speaking skills (Sun et al., 2017), enhance vocabulary (Rachmawati & Cahyani, 2020; Thao & Dieu, 2020), provide writing support (Hasani & Hendrayana, 2018), and resulted in general improvement in language proficiency (Albahiri & Alhaj, 2020). Some studies, such as one by Buana (2019) have established benefits in terms of language learning in multiple areas. In the case of Buana (2019), Rachmawati and Cahyani (2020) and Albahiri and Alhaj (2020) as examples among other studies, this came about through making YouTube and other educational videos available in an EFL setting. This video format is particularly suited for visual learners, and Arndt and Woore (2018) showed it helped improve their vocabulary.

In medical education, benefits of using SM technologies have been examined, for example, by Unis et al. (2014), Dar et al. (2017), and Al-Shdayfat (2018). Al-Shdayfat (2018) examined the use of social media among 395 student nurses at two universities in Jordan. The overall attitudes of the nurses were positive towards the academic and professional use of social media in nursing education. Unis et al. (2014) noted that undergraduate medical students had adopted new web technologies for exchanging medical information and knowledge, and that faculty members had also started interacting with their students using these technologies. This study sought to gauge the extent to which these emerging technologies were being used in medical courses, and to find out their impact in medical education. The researchers found that communication between students and staff members increased significantly, as did their learning, and also

understanding to a significant degree, particularly in terms of providing hands on opportunities.

Petrovic et al. (2012) examined the potential of social media in the context of higher environmental education. Social networking tools such as Facebook increased students' productivity, and it improved their interest in environmental issues, and their awareness for acting and changing their behaviour. This made students more involved and able to spread information about environmental problems.

3.5.2.4 Pedagogical benefits and implications

In addition to the educational benefits examined above, a number of specific pedagogical benefits are examined in this sub-section. In investigating social media as a supporting tool in higher education, Stathopoulou et al. (2019) identified four benefits in managing education: helping to cocreate knowledge, facilitation of different learning styles, promotion of experiential learning, and enhancement of collaborative skills.

Accommodating different learning styles of students is an issue in traditional face-to-face learning because the teacher is normally restricted to teaching the whole class together and according to only one or a narrow range of learning styles. Social media can be used to support more learning styles for the benefit of students who prefer to learn differently, whether through interaction in a group or autonomously (Thompson et al., 2014, cited in Stathopoulou et al., 2019). By incorporating social media technologies, students can be provided with interactive spaces that accommodate multiple learning styles to enhance learning (Saeed et al., 2009).

For example, students who prefer a theoretical approach to focus on systematically developing theory and theoretical frameworks can benefit from sharing background information and relevant stories to understand problems, whereas reflectors, activists and pragmatists can benefit more from group discussions and feedback from staff and peers (Yousef et al., 2016). Social media is well-suited for discussions and feedback because of the immediacy with which information can be shared quickly and group members can be updated with current developments.

As regards the co-creation of knowledge, knowledge construction by students themselves is a significant potential benefit of the socio-digital revolution because it can lead to deep learning, as shown in a study by Ruhalahti and Aarnio (2018), particularly when it is self-paced. Since social media tools are dynamic, they allow for greater interaction compared

to traditional learning methods including VLEs (Virtual Learning Environments), and this supports autonomous and independent learning.

In their meta-synthesis of six qualitative studies on social media in e-learning, Mnkandia and Minnaar (2017: 242) concluded that “all teaching and learning efforts must be anchored in student support since student support is the foundation of any learning and especially e-learning”. What they meant by this is that for deep learning to take place, the students must be guided in using the social media tool in a way that leads to the co-construction of knowledge by leading them through a process from idea generation to idea organising and intellectual convergence through to knowledge building (see Figure 3.1 below). For deep cognitive learning to take place using social media requires effective teamwork, trust, meaningful learning, a sense of belonging to a community, and scope for reflection.

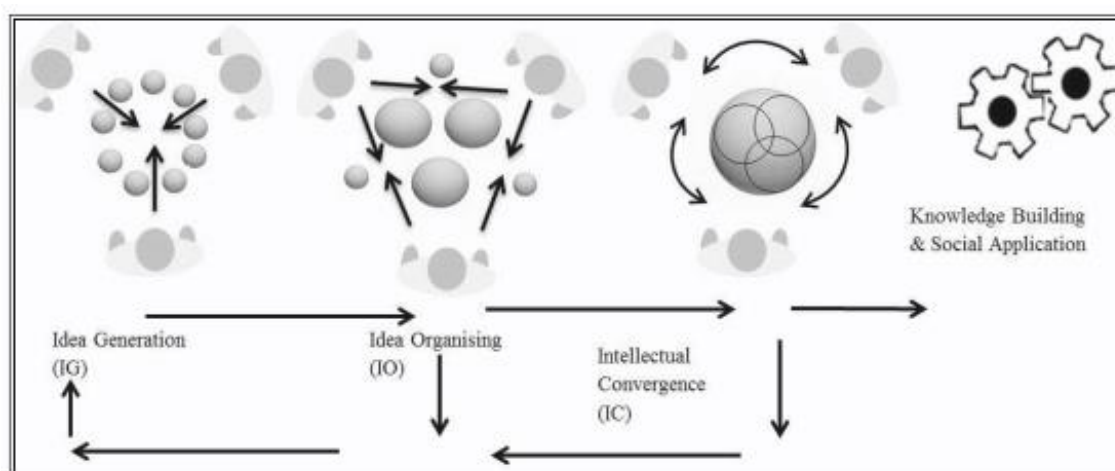


Figure 3.1: Intellectual phases of online collaborative learning

Source: Harasim, 2012 (adapted)

The aforementioned stages and the pedagogical implications of each are as follows:

- Idea generation – This initial step is necessary because ideas are required for articulating views, brainstorming, and holding discussions.
- Idea organisation – This stage involves the students analysing, organising and refining the ideas to make them relevant and useful to the academic context and for problem-solving, and is done by filtering the ideas by agreement or disagreement within the group. The facilitator can moderate this process to help cluster the ideas to provide meaningful units for knowledge-building.
- Knowledge building – The construction of knowledge is facilitated by interaction, collaboration, real-life examples, the constructivist pedagogy and clear learning outcomes. It involves an intellectual process of analysing information and discussions through convergence and synthesis of concepts, as illustrated in Figure 3.1 above.

In addition to the above three emergent themes and deep learning, their analysis of the qualitative data revealed three further themes on learning through social media: social learning, student support, and the learning environment. Social learning is characterised by participation, interactivity, sharing, networking, community-building, collaboration, creativity, distribution and flexibility, which can all be traced to the theory of social constructivism. Student support refers to facilitating collaboration and community-building so that the students are supported in their learning, and the learning environment describes the boundaries within which the learning takes place and is therefore concerned with issues such as safety, security and legal aspects. All seven themes are interrelated,

so for example, maintaining student support would also ensure that the students are involved and engaged, which are key to knowledge co-creation (Kearney & Bailey, 2016). According to Salmon (2000), this also makes students the most relevant stakeholders from the perspective of pedagogy given their potential to use social media to facilitate knowledge building. As McLoughlin and Lee (2008) described them, they become “active producers of knowledge” by applying social media tools to support their learning.

3.5.2.5 Pedagogical approaches

Another concern in relation to the use of social media in higher education is the need to arrange new pedagogical approaches to effectively accommodate social media platforms and tools to support teaching and learning. That is, as social media tools become more widespread in higher education, there will be a need for educationists to adapt traditional methods of teaching and learning (Yakuba & Dasuki, 2018). Various SM tools are used in education, but according to research by Al-Qaysi et al. (2019) in Oman HE, the most widely used tool is WhatsApp, which is also the case in Saudi Arabia (Albalaw, 2017; Agarwal & Alrowaili, 2020). It shows a change from the dominance of email a decade ago (Baptist et al., 2011), and probably reflects the general acceptance of SMPs as ‘normal’ by around the year 2014 (Al-Zaidi et al., 2014; Varghese & Pistole, 2014). Regardless, students prefer this particular SMP of WhatsApp, as confirmed by Mpungose (2020) for first year university students in South Africa, which contrasts with the preference of institutions and lecturers for more formal platforms, such as Blackboard or Moodle.

The pedagogical implications of SM use in HE have been considered in studies by McLoughlin and Lee (2008), Bista (2015), and Karajeh et al. (2018). Other studies have examined the pedagogic use of specific tools, such as podcasting (Huntsberger & Stavitsky, 2006), streaming video (Young & Asensio, 2002), and Twitter (Bista, 2015). While these considerations are new in the Arab world, they are already being addressed in the Western world. For example, Wilson (2013) noted that some institutions offer professional development opportunities to address training gaps and have made resources available specifically on pedagogical methods for incorporating social media into teaching practices. Books on this subject-matter include the following: ‘*Educating Educators with Social Media*’ (Wankel, 2011), ‘*Social Media for Educators: Strategies and best practices*’ (Joosten, 2012), ‘*The Social Classroom: Integrating Social Network Use in Education*’ (Mallia, 2014), ‘*Cutting-Edge Technologies and Social Media Use in*

Higher Education' (Benson & Morgan, 2014), and '*Social Media in Education: Breakthroughs in Research and Practice*' (Management Association, 2018).

In a study by Amgad and AlFaar (2014) in which learning outcomes were delivered through different pedagogical methods of reading, criticising, reflecting, constructing reviews and presentation, they established the usefulness of integrating social media technologies in educational courses in the context of health education in developing countries. In particular, they demonstrated improvements in administrative procedures and micromanagement of activities, which enabled them to optimise class performance and knowledge gains. They also highlighted specific uses of certain social media tools. Table 3.3 below summarises a number of these general educational and specific pedagogical tasks and examples of appropriate and popular social media and other related technological tools currently available for each of them. The use cases and tools were identified from the aforementioned study (Amgad & AlFaar, 2014) and also the wider review of previous literature in this chapter. This table can be useful for teachers to see which tools may be used for certain tasks.

Table 3.3: Educational/Pedagogical tasks and appropriate social media and other related tools

Task/Use	Social Media technological tools and other related tools
Announcements	Social networking such as Facebook; Twitter
Assessment/Evaluation	LMS such as Moodle
Attendance management	REDCap
Collaborative documents	Google Drive
Content management	LMS
Discussions/Interaction	Blogs, discussion forums, SNSs, chat messengers
Feedback	Chat messenger such as WhatsApp or Telegram
File sharing	File sharing sites such as Mega and Dropbox
Invitations	Facebook
Lectures	YouTube, UStream, podcasts
Meetings	Google Hangouts, Skype and other video-based chat messengers
Notes/Lesson plans	LMS such as Moodle, Blackboard, etc., wikis
Plagiarism checking	Online tools such as Turnitin
Presentation/Posters/Memes	Image sharing apps such as Instagram
Queries	SNSs
Streaming	Streaming service such as YouTube, UStream, Vbrick streamer

On the pedagogical value of videos, a study by Howard et al. (2017) may be noted for investigating students' preference for watching videos in comparison to attending lectures. Videos were perceived as allowing for more flexibility in pace and scheduling, and lectures were mostly disliked for being long. Importantly however, quantitative data on the academic performance of 522 students revealed that those who had high lecture attendance gained higher marks on average than those who relied more on online videos. It may be noted that this study was not strictly on the use of social media but on the efficacy of online videos, so it does not suggest social media is less effective than attending lectures. Besides, it is more likely that students gain from both methods, and that online videos and other forms of social media complement the lectures rather than replace them altogether. In some cases, the videos are actually recordings of delivered lectures. If used effectively, videos can enhance class participation (Carlisle, 2010), and as mentioned earlier, vocabulary (Arndt & Woore, 2018) and pronunciation (Rachmawati & Cahyani, 2020) in particular as well, which makes them especially useful for language learners.

3.5.3 Drawbacks, challenges, and conditions

In research undertaken by Sobaih et al. (2016), it was found that social media has potentially "great value" to be developed "as an innovative and effective tool for teaching and learning" (p.296), but only if the barriers can be overcome. They identified eleven main barriers, which include privacy and security, time commitment, loss of control and monitoring, the digital divide, variation in services, grading and assessment, integration with LMS, institution support, infrastructure, ethical issues, and awareness. These findings (see Figure 3.2 below) are based on a survey administered to 403 faculty members in eight public higher education institutions in Egypt and subsequent in-depth interviews with them. From the perspective of faculty, the main barriers they perceived were loss of control and monitoring, and technology and trust of SNSs. By 'loss of control and monitoring' is meant monitoring of the quality of teaching and learning, originality of work, and shifting from faculty-centred to student-centred learning. Other drawbacks they identified were those shared by institutions and students, as shown in Figure 3.2 below.

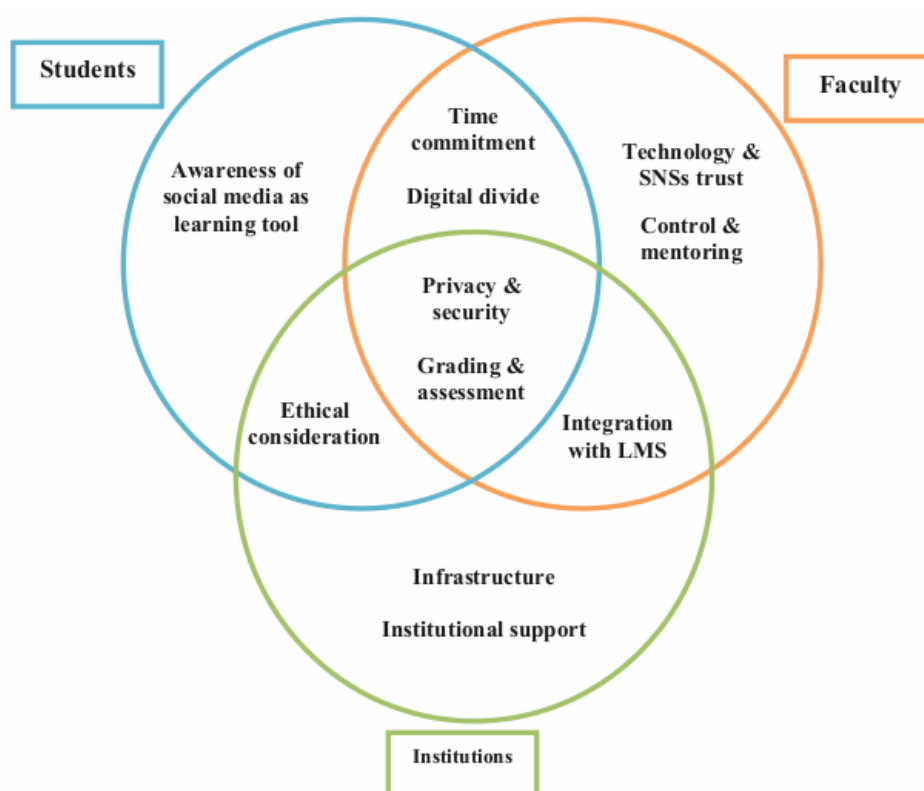


Figure 3.2: Barriers to social media use for academic purposes

Source: Sobaih et al. (2016)

According to Aifan (2015), students face eight main challenges when utilising social media technologies for learning. These challenges are prior technological knowledge, access to computers or the Internet, instructors' attitudes, posting inappropriate materials, cyberbullying, and privacy issues, lack of instructional pedagogy, language, distraction and lack of intention, and costs and lack of funding. Based on the identifications of drawbacks and challenges made by Sobaih et al. (2016) and Aifan (2015), Table 3.4 lists these by placing similar items together for ease of comparison. These listings helped in devising the summary of drawbacks in Table 3.6, based on the whole of this literature review. Some other more recent studies that support the findings from the two aforementioned studies are also mentioned, which show that the drawbacks and challenges identified persist. The subsections that follow further below examine specific selected areas of drawbacks.

Table 3.4: Identification of drawbacks and challenges

Sobaih et al. (2016)	Aifan (2015)	Other studies
Awareness (lack of)	-	-
Digital divide	Access to computers and the internet	Alenezi, 2018; Al-Ahdal, 2020
Ethical issues	Language, distraction, and lack of intention	Mazana, 2018
Grading and assessment	-	-
Infrastructure	-	-
Integration with LMS	-	-
Institution support	Lack of instructional pedagogy; Costs and lack of funding	Alshehri, 2020 (lack of training)
Loss of control and monitoring	-	-
Privacy and security	Privacy issues	Mazana, 2018; Willems et al., 2018; Karusala et al., 2019; Kutbi, 2020; Alshehri, 2020
Time commitment	-	Al-Hunaiyyan et al., 2017; Alshahrani et al., 2017; Hasani & Hendrayana, 2018
Variation in mobile services	-	Chawinga, 2017
-	Cyberbullying	Kircaburun et al., 2018; Abbas et al., 2019; Alshehri & Lally, 2019; Alshehri, 2020
-	Instructors' attitudes	Alqasham, 2018; Mardiana, 2020
-	Posting inappropriate materials	Alqasham, 2018

3.5.3.1 No indication or conditional indication of benefits

Regardless of the potential educational benefits of using social media technologies, some educational institutions report experiencing that they are not adopted for certain reasons, or that they have not benefited from such technologies (Buqawa, 2015). For example, Lancaster University started using the LUVLE application in 2007, a Virtual Learning Environment to improve interactivity among lecturers and students. However, the use of this service did not show any sign of progress in terms of enhancing interactivity because it was mainly used as a source of instructions, information, and resources for learners (Buqawa, 2015). This means that the university used this service to support an information transfer approach for learning that was led by instructors, and it did not

therefore provide any strategic benefit for the university and students other than saving on paper and printing costs.

Other studies in the literature identify particular conditions that should be met in order to ensure effective use of social media. For example, Chromey et al. (2016) claims social media can be convenient and effective, but only if used appropriately without providing personal information, which suggests concerns over privacy, as confirmed by Willems et al. (2018). Similarly, Kerawalla et al. (2008) devised social media technology frameworks that are mainly related to pedagogy. However, they noted there are practical issues with such technologies in terms of how to accommodate and sustain their usage in the education system, which require more consideration. These pedagogical issues to consider are clarifying the role of the technology, integrating the technology in the course, giving guidance in using the technology, designing for socialisation in online collaboration, and guidance and activities to help sustain the socialisation.

According to Buqawa (2015), the rate of use of social media technologies by educational institutions has increased, but there is a lack of empirical evidence on the process of implementing such technologies by educators in the classroom. This means that providing guidelines and guidance on how to use such technologies, which are the key practical issues, have been ignored once they were introduced into the classroom. Such ignorance could lead to not being properly prepared and not overcoming any unforeseen barriers that may occur while implementing such technologies into the classroom.

Although there is a lack of frameworks on how to introduce and implement social media technologies in educational contexts, practical recommendations on the way of implementing social media technologies in organisations can be found in the literature to use in parallel. Researchers, such as Berge and Giles (2006) and McAfee (2009), stated that some key factors should be considered prior to implementing a technology initiative in an organisation, which are strategic planning, re-assessing the missionary goals of an organisation, and what it intends to achieve using such technology. In other words, the vision, scope, users and the purpose of using social media technologies should be investigated before the implementation process. For instance, Blair and Cranston (2006), Gao et al. (2012), Dyson et al. (2014), and Manca and Ranieri (2016) investigated the purpose of using and who should use social media technologies like blogs, Facebook, and Twitter. In an educational environment, it is important to clarify the purpose of using social media technologies in the classroom because they can provide course curriculum updates to students or enhance the communication and collaboration between students

and lecturers, and among students. Furthermore, the selected social media technology to be used in the classroom should support the pedagogical approach chosen by the lecturer and learners (Buqawa, 2015). This is another key factor that should be considered while deciding on the way of applying the social media technologies in the classroom.

According to Bernal (2010), cultural factors, in terms of the current collaborative atmosphere of the staff, should be considered prior to introduction of social media technologies into an organisation to assess whether the technology can support and enhance the way staff communicate in the organisation. Regarding the educational environment, the educational culture within the classroom and whether social media technology can accommodate it should be thoroughly investigated prior to implementing social media technology into a classroom.

Implementing social media technologies into an organisation also requires addressing other relevant issues which are promoting the potential benefits of using social media technologies, educating staff, and facilitating staff engagement (Buqawa, 2015). Similar issues are present in the educational context which need to be addressed when introducing social media technologies and learning tools in the classroom. For example, it is necessary to consider the time, and the way in which such technologies should be used, in conjunction with blended learning approaches, and also how it is to be taught to lecturers. Furthermore, lecturers should be educated on how to increase the awareness of students on the potential benefits and use of social media technologies in the classroom assuming that there is no gap between the two groups in these technologies. In terms of facilitating student engagement, lecturers can inform students on the potential academic learning benefits of using social media technologies, and the way in which such technologies can provide positive feedback to students and help them with their coursework.

In the context of higher education institutions in Saudi Arabia, Buqawa (2015) stated there are a few significant areas that need improvements to make social media technologies effective, and their use productive. These areas are:

- The purpose and usage of social media technologies are only an alternative to the traditional technologies in higher education institutes, thus using new media and technologies are introduced without change in pedagogy.
- There is a lack of awareness on the potential pedagogical benefits of social media technologies among both lecturers and students

- There is a lack of knowledge, among both lecturers and students, on the usage of social media technologies in education and how such usage can improve the quality of learning and interaction
- There is lack of intention to exploit the potential benefits of social media technologies for better learning at the administration level of universities, not that there is no strategic view of social media technologies.

One particular area to ensure or a success ingredient is having prior technical knowledge, as it is an important factor for utilising social media technology in learning. Seo (2013) stated that there is a relationship between prior technological experience and skills of students, and their attitudes towards social media technologies. For example, having substantial gaming experiences enables students to exhibit high technical skill in a virtual world, as an example of social media technologies. Furthermore, Aifan (2015) stated that there are gaps in technological experience and knowledge; therefore, lecturers should resist the assumption that all students have equal experience in all digital online interactions. This means lecturers need to evaluate students' technological experience prior using social media technologies in the classroom, as this can enhance and utilise the implementation processes of such technologies.

3.5.3.2 Access to computers or the Internet

One issue that is an obstacle for students in accessing social media technologies in their classroom is the speed of the internet connection provided by their educational institutions (Seo, 2013; Chawinga, 2017), and in some places, accessibility is still an issue (Al-Ahdal, 2020). For example, Seo (2013) found that students at King Abdul-Aziz University in Saudi Arabia were reluctant to use social media technologies provided by their lecturers in the classroom due to slow internet speed. This problem was also highlighted by Chawinga (2017) who in spite of identifying some advantages (see 3.5.1.2), also noted that social media tools can potentially be distractors to pedagogy, and there may be challenges related to cost and accessibility of the internet, poor bandwidths and institutions having insufficient computers.

Having access to computers and online programs is another challenge that students may face while intending to utilise social media technologies for learning purposes. In this regard Seo (2013) stated that appropriate computers and high-speed internet access with no interruption should be provided for educators. Seo's (2013) case study also revealed that free online programs are often temporary, as they may shift to a fee-based model after

some time, or frequently change access privileges once the programme is established successfully.

3.5.3.3 Pedagogical, social and cultural drawbacks

Several studies by other researchers highlighted negative pedagogical and social consequences of relying too much on social media, in particular, distraction of students (Lenartz, 2013; Tuurosang & Amadu, 2014; Aifan, 2015; Alshammari et al., 2017; Chawinga, 2017; Kolan & Dzandza, 2018; Alshehri & Lally, 2019). Some students, for example, are distracted by using social media during lectures (Tuurosang & Amadu, 2014), which adversely affects their level of concentration on the lecture. Whether students should even be accessing social media during lecture time should be called into question, but the researchers nonetheless described SM use by university students as a “scourge” in the title of their study to reflect the overall negative impacts they found (p.62).

Kolan and Dzandza (2018) found that social media does provide benefits, such as in terms of sharing information, building relationships, and participating in group discussions, but that it can also cause addiction and distraction of attention, which can lead to “serious consequences” on students’ academic life (p.17). The actual serious consequences were not identified. However, considering this drawback of causing distraction to and addiction in students, the researchers made a number of recommendations. These include organising seminars to enlighten students, strategies to “inculcate the habit of using these sites for academic work”, avoiding “unnecessary chatting”, and restricting access to certain sites that could distract students from their academic work (p.18). These are precautions and preparations that university administrators should take note of to ensure the potential social drawbacks are minimised or avoided. On the contrary, Lenartz (2013) acknowledged that distraction and the blurring of boundaries between personal and professional lives is reported in the media as an impact of social media, but most university students tend to report less serious issues.

Other potential pedagogical issues are fear of misuse (Kutbi, 2015; Alkhatnai, 2019), disruption in the class (Kutbi, 2015; Alkhatnai, 2019), and impairment of teacher-student relations (Alnujaidi, 2017; Sharma, 2019). These are all disruptive behaviours that obstruct learning. Other related areas of drawbacks are institutional constraints and ‘cultural resistance’, as highlighted by Manca and Ranieri (2016), issues related to inappropriate content (Alqasham, 2018), moral and spiritual issues (Chusavitina et al.,

2016), and disrespect for or opposition to religious values (Aifan, 2015; Alshehri & Lally, 2019).

Chusavitina et al. (2016) concluded that despite some positive information and psychological impact, internet technologies can have negative impact as well on the development of students' intellectual abilities, and that it can potentially lead to "spiritual and moral degradation, economic and legal nihilism" (p.231). This conclusion was reached after identifying various degrading and destructive activities that take place while students in higher education institutions use internet technologies. Importantly, they also found that attention given to dealing with these kinds of issues in these institutions is insufficient. What this study appears to highlight is that such problems do exist which can potentially disrupt learning even more severely than the issues identified earlier, but since the focus was on these, they might not be so widespread to justify not using social media to support learning.

Regardless, due to institutional constraints and cultural resistance in some places, "academics are not much inclined to integrate these devices into their practices" according to Manca and Ranieri (2016:216). Unlike the case with some younger lecturers (Cilliers & Murire, 2017) mentioned earlier, many lecturers in Saudi Arabia are reported to be already stressed from teaching as it is without adopting SM technologies, and are very busy, and if they do use SM technologies, they are not usually appreciated or even acknowledged or encouraged by their superiors (Syed et al., 2020). How extensive this situation is, particularly in Saudi Arabia, which is the context of this present study, is not clear, but it suggests the use of social media is still restricted and limited due to these pedagogical and socio-cultural issues. The consequences of the cultural resistance are that academics are discouraged from embracing social media platforms and adopting participatory approaches to take advantage of their potential benefits. If the potential benefits are greater, and precautions and preparations are made, there may be a need instead for a change in attitude to seeing social media as a potential cultural resource that can be used in education systems to improve teaching and learning.

3.5.3.4 Learning and academic issues

The pedagogical issues highlighted above show that just as social media use can provide potential benefits to help students to learn better (see 3.5.2), it can also be a cause of learning difficulties and other academic issues and concerns. For example, previous researchers have noted that social media leads to students making more mistakes than normal (Kirschner & Karpinski, 2010), causes general academic issues (Chawinga,

2017), and creates a high risk of plagiarism (Harris et al., 2009). According to Gorghiu et al. (2016), spending too much time on Facebook causes negative effects on the work of university students, but it is excessive use of this tool that leads to a high level of dependence and thus greater negative effect on their academic work. The aforementioned problems could therefore be arising from over-dependency. Another possible explanation and area of concern related to the use of online sources in education generally, is their trustworthiness (Warner-Soderholm et al., 2018). That is, some students tend to use unauthentic or unreliable sources (Ahmad, 2020). It may be that some students need to be taught how to evaluate the quality of online sources (McGrew et al., 2018), or it could still be due to lack of quality resources on the internet (Santos et al., 2018) although this seems to be a diminishing issue with the growth of the internet.

More seriously, there are three specific areas of concern in terms of impact on performance, although these findings are contradicted by other studies that show benefits in these areas instead. Firstly, Alqahtani (2018) found social media negatively affects writing skills, but this contradicts the study of Akhiar et al. (2017) who found that it improves writing skills. Secondly, Allam et al. (2017) concluded that it is unsuitable for learning, and Paul et al. (2012), Ravizza et al. (2014) and Leyrer-Jackson and Wilson (2018) established that it deteriorates learning or reduces academic performance. These studies contradict the numerous studies examined earlier that show it leads to increased, enhanced or more efficient learning (see 3.5.2.2 above).

Some learning-related issues have been found that do not appear to have opposing studies, suggesting the problem does not exist or that it is a potential benefit. For example, besides an increase in mistakes, Kirschner and Karpinski (2010) also claim there is much empirical evidence of negative effects of multitasking, such as increased study time “to achieve learning parity” (p.1237). Multitasking, i.e., attempting to process different streams of information simultaneously, as is common when using social media, is different from processing information serially or sequentially, which is typical in traditional non-social media-based learning methods. Importantly, those users who used Facebook in this study, ended up having lower GPA scores and were found to spend fewer hours per week studying compared to the group of non-users. A total of 219 students participated in the study from a university in the United States from across a range of racial groups.

The problem the above study by Kirschner and Karpinski (2010) seems to point to is a deficiency in learning caused by excessive usage of social media that is not effectively

directed at supporting students' learning. It may be what Hrastinski and Aghaee (2012) described as 'digital dissonance', which they state is caused by frequent use of SM, although few if any students "feel that they use such media to support their studies". To deal with this situation, they suggested when using SM to support information retrieval and coordination for collaborative learning, it is teaching strategy that plays a key role.

3.5.3.5 Legal and security issues

Ethical and legal issues also present concerns to teachers, lecturers, and especially university administrators (Dawley, 2009; Sobaih et al., 2016), as do security related issues (Aifan, 2015; Sobaih et al., 2016; Alshammari et al., 2017; Alkhatnai, 2019), including the risk to web resources (Harris et al., 2009), and privacy concerns (Aifan, 2015; Chromey et al., 2016; Sobaih et al., 2016; Alnujaidi, 2017; Alshammari et al., 2017; Willems et al., 2018; Alkhatnai, 2019; Alshehri & Lally, 2019). In particular, incidents arising from the use of social media have caused educational institutions to be very concerned about harassment and victimisation (Walker et al., 2011; Benson et al., 2015; Karusala et al., 2019; Roopchund, 2019), and cyberbullying (Walker et al., 2011; Varghese & Pistole, 2014; Aifan, 2015; Alshehri & Lally, 2019).

These problems are particularly prevalent among female users of social media, as found in a study conducted in India (Karusala et al., 2019). It is reported that female lecturers who are at greatest risks of feeling unsafe because of various privacy and security concerns. They are important to address because they impact by creating additional problems, such as depression, loneliness, and low self-esteem (Varghese & Pistole, 2014), and other mental health issues (Mishna et al., 2017). Park (2019) attributes such problems to over-dependence on smartphones.

Cyberbullying, for example, is a common concern in online learning expressed in many studies (Varghese & Pistole, 2014; Mishna et al., 2017; Kircaburun et al., 2018, 2020). Kircaburun et al. (2018, 2020) used the term 'problematic social media use' (PSMU) to describe the focus of their investigation based on a sample of 1,008 undergraduate students at a Turkish state university. Gender differences were apparent in their results. In comparison to males, female use of SM was more for maintaining relationships, managing tasks, and for information gathering and other educational purposes. This makes them more goal-oriented, especially as they are less likely than males to share information about themselves. Importantly, it is females who are more concerned for their own online safety based on the experience of more cases of PSMU among females.

Cyberbullying is therefore a very legitimate concern due to undergraduate students' exposure to this crime and its impact on victims in terms of feelings of sadness, anger, and poor concentration (Walker et al., 2011). Vargheese and Pistole (2014) corroborated this claiming that victims of cyberbullying report higher depression, loneliness, and maternal attachment anxiety, and offenders themselves report lower self-esteem and higher maternal attachment anxiety. The prospect of victimisation is one of the main concerns in the use of SNSs in HE institutions, and universities, instructors and students should be aware of the potential dangers (Benson et al., 2015). Their survey results show universities are already doing well in raising cyber security awareness, since university students are not any more likely to be victims of cybercrime including offensive content and harassment compared to those not in HE. They argued that universities should not therefore be deterred from exploring these social pedagogical opportunities, such as collaborative learning to enhance and stimulate the experience and learning of students.

For dealing with the legal and security concerns, researchers also make a number of recommendations because they recognise social media can also provide potential benefits in education that should be gained. For example, in recognition of the role of social networks and virtual environments in supporting communication, Dawley (2009) suggested universities should develop 'community standards' to outline rules and make disclaimers. Similarly, Alnujaidi (2017) also recommended for institutions to create guidelines. As highlighted by Mazana (2018), these suggestions point to the lack of adequate rules to control the educational use of SM, or else their ineffectiveness, since some or other relevant rules are likely to already be in place.

3.5.4 Summary of benefits and drawbacks

This subsection presents two summary tables for reference on the benefits and drawbacks of social media in education that were examined in the various studies above.

3.5.4.1 Summary of benefits

Table 3.5 below gives a listing of all the claimed benefits in the studies examined in this literature review of the use of social media in education, together with mention of the studies that appear to give evidence for or support those benefits based on their own results and findings.

Table 3.5: Summary of benefits and supporting studies

Benefit	Supporting Studies
Convenience and flexibility	Chromey et al., 2016
- time saving	Henderson et al., 2015
- place; availability; accessibility	McLoughlin & Lee, 2007; Harris et al., 2009; Henderson et al., 2015
- allows to stay in touch	Oradini & Saunders, 2008
Communication and interaction	
- greater communication/interaction between students and teachers/lecturers	Line et al., 2006; Mazer et al., 2007; McLoughlin et al., 2007; Hong, 2008; Oradini & Saunders, 2008; Yazzie-Mintz, 2009; Rutherford, 2010; Schroeder et al., 2010; Faizi et al., 2013; Thompson et al., 2014; Chawinga, 2017; Subramanian, 2017; Oueder & Abousaber, 2018; Stathopoulou et al., 2019
- allows voicing of opinions	Faizi et al., 2013
- encourages sharing and discussion	McLoughlin & Lee, 2007; Rutherford, 2012; Yousef et al., 2016; Chawinga, 2017; Kolan & Dzandza, 2018
Other social benefits	
- social networking; interpersonal relations; building relationships	Schroeder et al., 2010; Kolan & Dzandza, 2018; Lahiry et al., 2019; Ansari et al., 2020
- greater cooperation/collaboration	Prince, 2004; McLoughlin & Lee, 2007; Hong, 2008; Harris et al., 2009; Johnson, 2011; Ulbrich et al., 2011; Gao et al., 2012; Faizi et al., 2013
- improved confidence	Hennessy et al., 2016; Uleanya, 2020
- improved motivation/engagement	Evans, 2013; Hennessy et al., 2016; Alshuaibi et al., 2017; Wahila et al., 2018; Cheng et al., 2020 (see 3.5.1.3 for more)
- develops team-working skills	Arquero et al., 2011; Petrovic et al., 2012; Alshammari et al., 2017
- community building	Schroeder et al., 2010; Dougherty & Andercheck, 2014
Study benefits	
- increases productivity	Petrovic et al., 2012
- improves interest/engagement	Dron, 2006; McLoughlin et al., 2007; Yazzie-Mintz, 2009; Carnaghan et al., 2011; Fine, 2011; Junco et al., 2011; Gao et al., 2012; Petrovic et al., 2012; Rutherford, 2012; Aghili et al., 2014; Al-Rahmi et al., 2014; Northey et al., 2015; Hennessy et al., 2016; Alshuaibi et al., 2017
- ease in managing/organising tasks	Henderson et al., 2015
- can revisit study materials	Henderson et al., 2015
- encourages reflection	Gao et al., 2012; Chawinga, 2017

Benefit	Supporting Studies
- helpful in doing homework	Miah et al., 2012
- supports multiple learning styles	Saeed et al., 2009
Academic benefits	
- increased, enhanced or more efficient learning	Dawley, 2009; Harris et al., 2009; Opus & Abbitt, 2009; Rutherford, 2010; Schroeder et al., 2010; Yazzie-Mintz, 2010; Agosto et al., 2012; Panckhurst, 2013; Thiele et al., 2014; Ruhalahti & Aarnio, 2018; Lahiry et al., 2019
- improved thinking skills	Arquero et al., 2011
- gaining/creating knowledge	Tiryakioglu & Frzurum, 2011; Petrovic et al., 2012; Amgad & AlFaar, 2014; Stathopoulou et al., 2019
- improved retention of knowledge	Dawley, 2009; Ebner et al., 2010; Agosto et al., 2012
- improved writing skills	Akhlar et al., 2017

3.5.4.2 Summary of drawbacks

Table 3.6 below gives a listing of all the claimed drawbacks in the studies examined in this literature review of using social media in education, together with mention of the studies that appear to give evidence for or support those drawbacks based on their own results and findings.

Table 3.6: Summary of drawbacks and supporting studies

Drawback	Supporting Studies
General issues	
- time consuming/demanding	Kirschner & Karpinski, 2010; Alasfor, 2016; Sobaih et al., 2016
- increases dependency on tool	Gorghiu et al., 2016; Chawinga, 2017; Kolan & Dzandza, 2018
- boundary blurring	Hrastinski & Aghaei, 2012; Lenartz, 2013
Privacy/Legal issues	
- privacy issues	Aifan, 2015; Chromey et al., 2016; Sobaih et al., 2016; Alnujaidi, 2017; Alshammari et al., 2017; Willems et al., 2018; Alkhatnai, 2019; Alshehri & Lally, 2019; Karusala et al., 2019; Alshehri, 2020
- illegitimate use	Schroeder et al., 2010
- ethical/legal issues	Dawley, 2009; Sobaih et al., 2016; Forbes, 2017
- lack of accountability/rules	Mazana, 2018; Ramage & Moorley, 2019

Safety/Security issues	Aifan, 2015; Sobaih et al., 2016; Alshammari et al., 2017; Alkhatnai, 2019
- safety issues	Knott & Wassif, 2018; Roopchund, 2019
- cyberbullying	Walker et al., 2011; Vargheese & Pistole, 2014; Aifan, 2015; Abbas et al., 2019; Alshehri & Lally, 2019; Alshehri, 2020; Kircaburun et al., 2020
- victimisation/harassment	Walker et al., 2011; Benson et al., 2015; Mishna et al., 2017; Karusala et al., 2019; Roopchund, 2019
- risk to web resources	Harris et al., 2009
Technical issues	Alkhatnai, 2016
- lack of availability/accessibility	Aifan, 2015; Alnujaidi, 2017; Chawinga, 2017; Sharma, 2019; Al-Ahdal, 2020; Alshehri, 2020
- poor connection/bandwidth	Seo, 2013; Chawinga, 2017
Administrative issues	
- lack of guidelines	Alnujaidi, 2017
Academic issues	Chawinga, 2017
- affects writing skills	AlQahtani, 2018
- more mistakes	Kirschner & Karpinski, 2010
- higher risk of plagiarism	Harris et al., 2009
- deteriorates learning; reduces academic performance	Paul et al., 2012; Ravizza et al., 2014; Leyrer-Jackson & Wilson, 2018
- unsuitable for learning	Allam et al., 2017
- greater workload	Schroeder et al., 2010
- information quality/trustworthiness of sources	Santos et al., 2018; McGrew et al., 2018; Warner-Soderholm et al., 2018; Ahmad, 2020
Pedagogical issues	
- distracts students	Lenartz, 2013; Aifan, 2015; Allam & Elyas, 2016; Alshammari et al., 2017; Chawinga, 2017; Kolan & Dzandza, 2018; Alshehri & Lally, 2019
- impairs teacher-student relations	Alnujaidi, 2017; Sharma, 2019
- fear of misuse	Kutbi, 2015; Alkhatnai, 2019
- disruption in the class	Alkhatnai, 2019
Social issues	
- disruptive interaction	Schroeder et al., 2010
- limited socialising	Schroeder et al., 2010
- distrust	Hautala, 2019
Cultural issues	
- cultural resistance	Manca & Ranieri (2016)
- disrespect of or opposition to religious values	Aifan, 2015; Alshehri & Lally, 2019
- inappropriate content	Alqasham, 2018
- moral/spiritual issues	Chusavitina et al., 2016

3.6 Perceptions and Experiences of Using Social Media in Higher Education

3.6.1 Preferences, perceptions, and experiences of students

Knowing the preferences and perceptions of students on using SM in education is important to this study focused on teachers' and lecturers' perceptions because it could help them construct courses that are effective for both students and themselves (Chromey et al., 2016). Also, as pointed out by Alfelaij (2016), what students need and prefer is an important consideration in pedagogy because it affects how well educational technologies are integrated in education. The finding of the study of Alfelaij (2016) was the outcome of an investigation into why an attempt to integrate educational technology was unsuccessful in Kuwait.

Student perceptions of social media in HE have been examined in previous studies, such as those by Bennett et al. (2012), Jahan and Ahmed (2012), Arquero and Romero-Frias (2013), Hamid et al. (2015), Al-Qoot and Abu-Jado (2016), Chromey et al. (2016), Akhiar (2017), Al-Shdayfat (2018), Alamri (2019) and Alshehri and Lally (2019). The studies conducted in the context of Saudi Arabia are examined separately in section 3.6.4. The early study by Bennett et al. reflects some negative, or rather mixed perceptions, which may be due to SM being new at the time and early concerns before SM took hold in HE. In contrast, all other studies have shown that students generally perceive SM use positively.

Most students in the Bennett et al. (2012) study had little experience with relevant technologies and struggled to "to see the value of Web 2.0 technologies for learning and teaching" (p.524). Of the 799 students that enrolled in a chemistry course, most of them reported that the activity they engaged in using social media tools failed to enhance their learning. For example, 68% did not experience any better understanding, and 62% were not able to reflect any better on their own learning. These issues would be of concern to lecturers since they typically seek to utilise only those tools that are known to support and enhance the learning of their students. Similarly, students enrolled in other courses on environmental education and teacher education also did not find their activity relevant or useful. Notably, the perceptions were not the same for students enrolled in the biology course in which 72% of the students found SM-based activity assisted them in their studies, and most of them found it interesting, easy to use, useful and enjoyable. This shows the experiences were mixed between different courses. Students in a journalism course found their activity to be even more helpful with 91% finding it beneficial, while

those enrolled in a psychology course generally found their experience to be positive as well.

Arquero and Romero-Frias (2013) investigated the opinions and perceptions of students on their use of SNSs in HE. Their overall experience was positive, and, in particular, they considered SNSs to contribute to their experience of higher engagement and deep collaboration with fellow students and teachers. The majority of them preferred using an SNS if they had the option of enrolling again, and notably, those students who used the site intensively exhibited significantly better academic performance. The performance gain led to higher grades, but it was due to improvement in the specific area of content when writing essays that led the researchers to highlight the usefulness of SNS for content learning in particular, and only among those students who were most actively involved in the experience. This is in consonance with the finding of Akhiar et al. (2017) in the context of Malaysia, in which focus group discussions with 101 students also reported positive perceptions of social media in improving their writing skills, in their case using Instagram. Lecturers may be interested in these potential academic benefits more than the other benefits that were considered in more detail in sections 3.5.2.1 and 3.5.2.2.

Similarly, students in the studies by Hamid et al. (2015) and Al-Shdayfat (2018) also identified several positive outcomes. For example, Hamid et al. examined student perceptions from using online social networking (OSN) to interact with other students and with their lecturers. The prominent positive outcomes were peer learning, interacting with lecturers, engagement with the content, enjoyable and interactive learning environment, opportunity for self-directed learning, and to a relatively lesser extent, promotion of critical thinking and self-monitoring of the learning progress. The outcome of OSN providing a platform to interact with lecturers could be favourable for lecturers as well in helping them to be more in touch with their students to know their progress, needs and any challenges. With continued use of OSN, the students in this study found that the extent of interaction and likelihood of getting feedback was “considerably higher” (p.6) compared to F2F interactions. Most of this interaction was in the form of getting feedback pertaining to the course requirements and the progress made by the students. The students found this particularly useful when they were away from the classroom for some time, as it helped them to catch up with fellow students.

3.6.2 Perceptions and experiences of teachers and lecturers

Lecturer perceptions of social media usage in HE have been examined in previous studies by Maor (2003), Zelick (2013), Aydin (2014), Wiid et al. (2015), Akcayir (2017), Albalaw

(2017), and Habibi et al. (2018) among others. In the study by Wiid et al. (2015:395), a survey of lecturers revealed the majority of them (94%) use social media tools, “but more for social purposes than educational purposes”. It was also revealed that the most important factor is system accessibility, and most respondents used it for up to five hours per week. The most popular social media networking system overall was Facebook, but LinkedIn was more popular among male lecturers, as a gender difference, and younger lecturers generally had a higher acceptance of social media than older colleagues, as an age difference. The researchers concluded that effectiveness of social media can be ensured by monitoring it, and ensuring it is guided by institutional policies and guidelines.

In the two studies by Zelick (2013) and Akcayir (2017), SM was implemented to support student education. Zelick (2013) examined the perception among faculty members of social media on teaching and learning in higher education using a quantitative, non-experimental research design while drawing comparisons with traditional methods of classroom teaching. Most of the respondents felt there were many opportunities for them to learn how to use social media technologies, but unlike students, they also found it difficult to keep up with the technology due to constant changes. Furthermore, most of them agreed that using these technologies in their courses gave them greater flexibility than in the traditional F2F method, and nearly half agreed they were self-motivated in this regard.

Akcayir (2017) investigated the motivations and obstacles to teaching in HE with SNSs using a mixed-methods approach and explored why 658 faculty members from eight different state universities in Turkey preferred to use SNS or not to use them for educational purposes. Nearly half of them did use SNSs, and their greatest motivation (for 90% of them) was that they provided “a means for fast and effective communication” with students, followed by convenient document sharing. However, their main concern which impeded SNS usage was privacy, and for this reason in particular, many of the faculty members did not use social media tools for developing their own educational resources. In consonance with the study of Veletsianos and Kimmons (2013), Akcayir (2017) explained that this could be because faculty members view SNSs as communication tools rather than for serving other educational purposes. As for privacy issues, these may be overcome by operating two separate accounts – one for personal use and the other for professional use (Sobaih et al. 2016).

The study by Habibi et al. (2018) in Indonesia was an enquiry conducted into student teachers' perceptions on advantages resulting from the use of SNSs while undertaking an

English teacher education programme in a public university in Indonesia. The purpose of allowing SNS in this programme was to ease communication, facilitate discussion and supervision, and support report submissions between the students, teachers and their supervisors, and the tools used included WhatsApp, Telegram, Google Form and Email. Focus group discussions were held with 42 of the students' teachers. Two salient themes emerged from these discussions relating to SNS advantages, namely social interaction, and support for learning motivation among others. The social interaction benefit applied to both participant interaction and to interaction between participants and supervisors, and motivation and experience related benefits included self-directed learning, promotion of critical thinking, and engagement with content. The programme also saved them time.

Regarding interaction, improvement in this aspect resulting from using social media has also been reported by students in several studies (Faizi et al., 2013; Al-Rahmi et al., 2014; Hamid et al., 2015; Buqawa, 2015). The Hamid et al. study for example, confirmed that it is particularly the interaction with lecturers to get feedback that benefitted students. This is something that teachers and lecturers might find appealing to make them consider using social media tools particularly for facilitating interaction and providing feedback. Aydin (2014) who explored the interactions of 121 Turkish EFL learners with their teachers using Facebook as an SNS, found that they tended to be passive when interacting with teachers. This led him to recommend EFL teachers revise their roles to increase the interaction with their students "to build better and less formal relationships with them... [so that] teachers may better understand students' feelings and gain educational opportunities which may lead to positive learning experiences" (p.161).

Considering the above potential of SM in HE and the need for teachers to adapt their roles, the study of Maor (2003) may be useful, although it is from the early years of social media when its application in education was not widespread. He identified four ways in which instructors can fulfil their role, which may still be relevant today. These roles are social, managerial, technical, and pedagogical, as follows: (1) a social role of interpersonal communication, maintaining the flow of communication, affective support and setting a positive tone; (2) a managerial role in designing and coordinating the unit, overseeing tasks, and course structure and requirements, (3) a technical role through helping and guiding in the use of technology, and (4) a pedagogical role by promoting interactive learning, providing instruction and feedback, asking questions and probing, stimulating discussions, synthesising comments of students, and referring students to

experts or external sources. In short, it was concluded that lecturers need to be 'reflective practitioners' to ensure the online collaborative learning is of acceptable quality.

3.6.3 Perceptions and experiences in specific fields

Two fields came through as ones in which most studies on SM technologies in education have been conducted, and which appear to be ones in which they are mostly used. These fields were identified earlier in section 3.3.4 as language learning, especially EFL/ESL, and medical education. In this subsection, the perceptions and experiences of teachers and students are examined in more detail.

3.6.3.1 Experiences in language education

Alrasheedi (2020) advocated for SNSs to be used not only in universities in Saudi Arabia, but also in elementary and preparatory stages in the context of learning EFL (English as a Foreign Language). He gave this recommendation after analysing 15 studies on EFL acquisition in Saudi Arabia. The potential benefits for these students include improved writing, both qualitatively and quantitatively (Fattah, 2015; Alsharidi, 2018), and improved comprehension based on their outcomes when they were tested.

Notably, Alrasheedi's (2020) review of the literature also revealed the most popular SNS tools used in Saudi Arabia to support English language learning are WhatsApp and Twitter, and that both teachers and students alike utilised SNSs enthusiastically, both for social purposes and in education. At the same time however, some drawbacks were experienced in the educational context, such as over-reliance by students on SNSs, lack of clear information classification and deterioration of classroom dynamics (Alkhatnai, 2019). Furthermore, negative impact on learning was reported by Alqahtani (2018) due to students shortening their writing styles, and some students also experienced issues with disrespect of religious values (Aifan, 2015) and other content deemed to be inappropriate (Alqasham, 2018). As for teachers, some feared their students would be easily distracted (Alshammari et al., 2017) or they would misuse the SNS (Kutbi, 2015; Alkhatnai, 2019), and had concerns related to privacy and security (Alshammari et al., 2017; Alkhatnai, 2019).

3.6.3.2 Experiences in medical education

Cheston et al. (2013) conducted a systematic literature review based on 14 studies on the use of social media in medical education to uncover how interventions had affected outcomes and the challenges and opportunities involved. Interventions were found to be associated with improved knowledge, including in terms of exam scores, and improved

attitudes and skills. In terms of opportunities, the most commonly reported were promoting engagement of learners (71%), providing feedback (57%), collaborative development and professional development. In terms of challenges, the most common were technical issues (43%), variable learner participation (43%), and concerns with privacy and security (29%).

Amgad et al. (2014) investigated the usefulness of integrating social media technologies in formal educational courses and modules based on an evaluation survey to which 134 students and 22 course coordinators responded from 14 different universities across Egypt. The overall feedback from students was positive, as they supported the integration of social media tools in the academic courses and modules they were taking. For this purpose, they found Google Drive, Dropbox and Facebook to be most useful.

The study of Unis et al. (2014) was examined earlier in section 3.5.2.3. According to Ventola (2014), social media tools can be used for improving or enhancing the professional networking capability of users, help promote an organisation, and ultimately be beneficial for patient care and public health programmes. At the same time however, they also pose risks if there is spread of poor-quality information, a breach of patient privacy, violation of boundaries, or legal or licensing issues. Most of the health care institutions involved in the investigation had guidelines for these kinds of risks.

3.6.4 Perceptions and experiences of SM in Saudi higher education

Studies mentioned above by Aifan (2015), Allam and Elyas (2016), Al-Qoot and Abu-Jado (2016), Albalaw (2017), Alamri (2019), Alshehri and Lally (2019) and Alshehri (2020) were conducted in the same context of Saudi Arabia as the present study. The overall impression is reflected in the finding of Albalaw (2017), where some teachers used SM moderately in their teaching while some did not, but many teachers perceive SM positively and believed that it has an important role to play in education. This study was conducted in Tabuk and involved 142 teachers of mathematics. The subject could be a factor in this finding that is worth investigating. The quantitative data gathered by Allam and Elyas (2016) based on 75 Saudi EFL teachers suggested a more balanced view where participants believed strongly in the pedagogical benefits and values of using SM in EFL classes, but at the same time, they acknowledge the tool could also be distracting if used freely by students.

Other studies were noted earlier for highlighting certain issues common in the same context. For example, Turjoman (2016) and Asif (2017) pointed out the problem of lack

of effective interaction and communication among Saudi university students. Since SM has a potential to improve interaction and communication (see **3.5.1.2**), this increases the appeal of SM in Saudi Arabia. Other problems such as slow internet speed in Saudi universities (Seo, 2013) and other technical issues can be overcome by improvements in technology if they persist. Besides noting a very positive attitude among students towards social media usage, Alshehri and Lally (2019) and Alshehri (2020) also noted major barriers to it. These barriers were distraction, privacy issues, cyberbullying, and opposing Islamic religious teachings. These are more serious issues to deal with because they affect the emotional and mental well-being of students.

On the other hand, studies that have highlighted benefits, especially academic benefits, such as Alrasheedi (2020) examined above in section **3.6.3.1**, are also likely to be appealing for instructors and lecturers to take note of, so that they can apply similar procedures to improve learning in the kingdom. Additionally, there are a few that have examined the use of social media not in the context of Saudi Arabia, but among Saudi students studying in foreign educational environments, such as Alhamadi (2017) which was a case study based on the experiences of six Saudi graduate students studying in US universities.

In Saudi HE, students have reported experiencing similar benefits from using SM. For example, Alamri (2019) found that Saudi undergraduate students generally had positive perceptions towards using social media, and mostly preferred WhatsApp and Twitter, to support their learning activities, which is corroborated by Alshehri and Lally (2019). The researcher reported that social media enhances collaborative learning, self-learning, and other related skills, such as increased responsibility and motivation. Notably, this study also makes it clear that positive perceptions does not necessarily translate to effectiveness. It was found that undergraduate students generally had positive perceptions toward the use of social media, but statistically there was no evidence of an impact of social media usage on their GPA.

The Alhamadi (2017: 1) study is worth noting because of the observation that “social media have been influencing Saudi students differently than those in other socio-cultural contexts due to the uniqueness of the Kingdom of Saudi Arabia (KSA) in terms of cultural, political, economic, and social life”. Other studies are useful for whatever contribution they make toward understanding lecturer perceptions of SM technologies, with which this present study is concerned, but the issues that are peculiar to the same context as the present study must be clearly identified for those findings to be more

relevant, applicable, and thus useful to take note of. Moreover, the aforementioned study examined the experiences of Saudi students and the influence of social media on their learning from the social constructivist point of view, which allowed for deeper understanding of the issues involved. Their findings confirmed the capability of SM in providing a social constructivist learning environment with the understanding that through interaction, assistance can be availed from 'more knowledgeable others' (MKO) to develop deeper comprehension of a subject and allow greater creativity to be expressed than would be possible individually.

The study also noted that since Saudi Arabia has a centralised system led by its Ministry of Education (MoE), it is in a good position to set rules and regulations for adopting social media in higher education. This could help deal with the various privacy, ethical, security and legal issues highlighted in this literature review. As for instructors in Saudi Arabia, the researcher recommended that they pay particular attention to the learning styles of their students to meet their specific needs and interests. Finally, this study pointed out the potential of SM to improve communication between students, and between students and their instructors, which is something that, as mentioned before, is very much required in Saudi Arabia due to the issues related to lack of interaction and communication (Turjoman, 2016; Asif, 2017).

Whether or not SM usage can lead to a definite or clear improvement in learning or higher academic performance is another matter. As found by Alwagait et al. (2015), there is no correlation between SM usage and GPA score in the context of Saudi Arabia. According to their study's findings, it was the factor of time management that affected the ability of the students to study effectively. Nonetheless, it may be worth examining the potential of adopting social media technologies in Saudi HE for its other personal and social benefits which may indirectly support learning.

Now, what remains to note is two crucial points. Firstly, since its conception, social media has proven popular as it has taken many sectors including the higher education. Thus, the enthusiasm around social media use in education has continued and its potential has materialized in formal educational contexts. Different studies looked at it from different angles. One trend goes in favour with the argument that SM has massive impacts of HE. The other argument expressed the widespread fears that SM may be a distractor to pedagogy (Van Den Beemt et al., 2020). Nevertheless, as these debates carried on, school administrators were some of the first stakeholders to embrace social media. This included blogging to share news about the school, updating the school's Facebook page to engage

with parents, or tweeting important updates for immediacy. Social media has also proved to be a great advantage in marketing for schools. Similar view is stated by Ansari and Khan (2020) that SM platform in academic institutions allows students to interact with their mentors, access their course contents, customisation and build students communities.

Furthermore, that aspect of materialisation was evident during the pandemic which witnessed an urgent need to move to emergency remote education. In other words, the effect of the pandemic has boosted social media usage in education. In this regard, Teras et al. (2020: 863) argued that,

“The Covid-19 pandemic and the social distancing that followed have affected all walks of society, also education. In order to keep education running, educational institutions have had to quickly adapt to the situation. This has resulted in an unprecedented push to online learning. Many, including commercial digital learning platform providers...”

3.7 Chapter Summary

This chapter provides an overview on the existing literature on social media technologies. It starts by discussing the importance of social media technologies in the learning process in HE. It also demonstrates how such technologies have shaped the understanding of lecturers, academic leaders, and learners in terms of education and information sharing and the development of new curriculum programmes that replaced the traditional ones. Social medial technologies support language learning, cooperation and communicaton between students. Thus, social media technologies have made a positive leap in the matter of learning process and knowledge sharing. Nevertheless, it is not without flaws. One example resides on the fact that some lectueres are unable to use these technologies or, in case they do, they are not active in using them to disseminate the knowledge. Furthermore, there is the issue of ‘digital life gap’ that underlines learners excel in using social media technologies compared with their lecturers. The other issue is that in some countries like Saudi where technology in HE is used, traditional learning methods hinder a complete and successful implementation of such technologies. Finally, curriculum programmes have witnessed workload increase making it difficult for students to deal with learning process and classroom partcipation.

The next chapter provide the selected methodology used in this research and it delves into the main methods and strategies used to collect data and analyse the data.

CHAPTER 4: Methodology

4.1 Introduction

This chapter details the approach, techniques and procedures employed to investigate the issues identified in the foregoing chapters with explanations and justifications. An examination of previous research in the educational field on lecturers, academic leaders, and students' perceptions, of social media technologies in the context of Arab countries revealed that most have been conducted using quantitative research methods, particularly by means of surveys (Al-Bu Muhammad & Al-Badri, 2012; Al-Dahshan, 2015). However, this has been limiting in terms of providing in-depth knowledge and insight into lecturer's academic leaders, and students perceptions. As the study aims to investigate the perceptions of educators, academic leaders and students on the utilisation of social media in the teaching and learning process in Saudi Arabia, a purely qualitative approach has been adopted because it is deemed appropriate to understand the current context and views of participants. The research was therefore conducted under the interpretivist paradigm.

Furthermore, as the study examines a context that has not been studied extensively, a qualitative content analysis approach was undertaken to help gain this understanding of the situational context and perceptions held by the educators. The research was undertaken with lecturers at Taibah University in Madinah, Saudi Arabia. Additionally, the study included the perceptions of academic leaders and students to reflect on the views of lecturers. Data were collected to gain an understanding of the situational context and on the perceptions that educators hold in relation to utilising social media technologies. To reiterate, the objectives and sub-research questions formed to guide this study are as presented in Table 4.1 below, the main RQ being: *How do lecturers, academic lecturers and students perceive the utilisation of social media technologies and their impact on teaching and learning in Saudi higher education?*

Table 4.1: Study objectives and research questions

No.	Objective	Sub-Research Question
1	To identify the main features of Saudi higher education in terms of context and culture relevant to adopting social media technologies to support teaching and learning.	What are the main features of Saudi higher education in terms of context and culture relevant to adopting social media technologies to support teaching and learning?
2	To understand how social media technology is utilised in higher education institutions in general and Saudi Arabia to support teaching and learning.	How can social media technology be utilised in higher education institutions in general and Saudi Arabia to support teaching and learning?
3	To examine the nature of teaching and learning pedagogy in Saudi higher education.	What is the nature of teaching and learning pedagogy in Saudi higher education?
4	To investigate the perceptions, primarily of lecturers on the use of social media technologies at a selected university in Saudi Arabia, and as corroborated by academic leaders and students.	How do lecturers, academic leaders and students perceive the use of social media technologies at a selected university in Saudi Arabia, and how is this corroborated by academic leaders and students?

The chapter is organised by first clarifying the nature of this research and the paradigm under which it was conducted. This includes methodological considerations, detailing and justifying the paradigm, discussion of ontological and epistemological aspects, and a rationale for adopting a qualitative approach. The strategies and methods are then detailed, which includes the adopted methodology of qualitative content analysis, and the rationale for these selections and the protocols followed. The subsection detailing the pilot study describes how it was prepared, and how the main sample was obtained for the study to be conducted. This is followed by detailing the rationale and planned content of the focus-group interviews, and the implementation of the interviews with lecturers, academic leaders, and the focus-groups with students. The difficulties encountered during the data collection are also discussed to show how they were dealt with. Subsequently, the data analysis procedure is detailed in which the three-stage process of Miles and Huberman was followed involving data reduction, data display and drawing conclusions. Then, an evaluation is made of the research quality, which includes validation of the data, and a discussion of internal and external validity and reliability, and authenticity. Finally, the positionality of the researcher is made clear, as well as the ethical guidelines followed in conducting this study.

4.2 Research Nature and Paradigm

4.2.1 Research paradigm and approach

According to Cresswell (2003), research can be conducted through a number of possible paradigms. Johnson and Duberley (2000) categorised these paradigms into three main categories, which are: positivist, anti/post-positivist, and pragmatic. The former is based on the acceptance of the existence of an external reality. This type of research tends to be more quantitative and uses various methods for collecting data, such as structured surveys, questionnaires, and experiments, which are thoroughly definable and used for comparing and analysing results within the context of a research field. The anti/post-positivist paradigm reflects a view that the external world has more fundamentally unknowable aspects, and this type of research highly depends on the context and participants' perspectives (Hildebrand, 2003). According to Rist (1977) anti/post-positivist research tends to use qualitative methods for collecting data, such as various types of interviews, focus groups, observations, and other instruments to capture and record shades of meaning and experiences more appropriately. Johnson and Duberley (2000) state that a pragmatic approach is a mixture of positivist and anti/post-positivist approaches, which means the acceptance of the limitations of a realistic perspective of the world by maintaining that such knowledge is revisable and provisional.

The choice of a given paradigm or a combination thereof may affect the decisions of researchers. Studies reveal that there is no agreement on the superiority of any of the above-mentioned approaches in research, or on the need for exclusivity in their use. Therefore, one or more than one approach may be applied to any given research (Mertens, 2009; Cohen et al., 2011). This means researchers should select their approach wisely, according to the research problem, main guiding research question of the study, respondents, and researcher capability in conducting the study (Creswell, 2014). This means that researchers should thoroughly clarify the problem and procedures that they want to take. According to Creswell (2003), selecting the appropriate paradigm depends on the research problem, and on the capacities of the respondents and researcher.

4.2.2 Ontology

Crotty (1998) stated that the ontological aspect of philosophy refers to the reality which is the basis of a study. In other words, researchers that follow this type of philosophy in their studies should always consider their perception of reality in their analysis and take a position once there. In addition, Carter-Steel and Al-Hakim (2009) state that ontology

is an understanding and construction of reality because it differs across individuals. It can be interpreted as the nature of a phenomenon and reality that is based on what we know in the world. In this regard, Blaikie (2010) indicates that the ontological assumption is the way in which things really are and work. Many philosophers debate such terminology as the way of answering questions, such as: 'What is the nature of reality?' and 'What knowledge is?'. Accordingly, Mack (2010) argued that the ontological viewpoint is the way in which individual consciousness interprets reality or it is an external phenomenon that is imposed on people. This is in line with the study of Walter and Andersen (2013) who mentioned that researchers should initially identify the phenomenon of their study that is 'socially constructed', which depends on the perceptions of individuals, and is objective and external to them. Thus, it can be concluded that ontology is about the nature and conception of reality.

As this research attempts to investigate stakeholders' perceptions of the utilisation of social media in educational processes, the involvement of stakeholders and participants are required to further understand the effect of social media on learning and teaching. Accordingly, this process requires various reactions and responses of involved individuals in the study, which lead to their 'subjective' perceptions on the subject-matter. It should be mentioned that the actions of participants as a 'socially constructed' group are vital, and they should be considered carefully by the researcher. Therefore, considering the mentioned factors and research questions of this study, it can be identified that the ontological viewpoint of this research will lean towards subjectivism.

4.2.3 Epistemology

Cohen et al. (2009) state that the epistemology assumption focuses on the nature and forms of knowledge. In other words, this type of philosophy is concerned with the ways of acquiring knowledge and answering questions such as: 'What is considered acceptable knowledge?' and 'how we know it' (Saunders et al., 2012). Researchers argue that this area of philosophy concentrates on the nature of the relationship between "what can be known" and "the knower" (Guba & Lincoln, 1994; Saunders et al., 2012). Epistemology in philosophy is an approach to different ways in which knowledge is created and accepted regarding its method and various ways of obtaining and communicating this knowledge (Easterby-Smith et al., 2012). According to Cohen et al. (2007:11), the social researcher seeks to "understand, explain and demystify social reality through the eyes of different participants". This indicates that the nature of research inquiry and research

questions play a key role in the selection of the research philosophy. In other words, no research philosophy is better than the other.

The epistemological aspect of philosophy has two contrasting positions that are named differently by various authors. Proctor (1998) states that this philosophy has two contrasting continua, which are Positivism and Post-positivism. Crotty (2003) adopts Constructionism and Objectivism; whilst Easterby-Smith et al. (2012) refer to them as social constructionism (phenomenology) and Positivism. However, Saunders et al. (2012) use the term Interpretivism and Positivism as two contrasting continua in epistemology.

In epistemology that leans towards to positivism, the researcher does not influence the knowledge or phenomenon under their investigation (Guba & Lincoln, 1994). The researchers and investigator are assumed to have a dualism-based relationship in this type of philosophy. Grix (2004) defines a positivist position as a perception of knowledge that is immutable and fixed. In other words, perception in positivism is based on truths that cannot be disputed. According to Easterby-Smith et al. (2012), the world exists externally; therefore, objective methods should be used to measure its properties. This means that an object in the world is neither a creation of people's mind, nor is it independent of individuals' behaviour. In this regard, Saunders et al. (2012) indicate that a researcher's senses and mind cannot mediate the reality when investigating objects that have an existence independent of the knower. This means that the researcher is a neutral observer. Researchers state that the reality (or truth) is not interpreted by individuals but socially constructed (Easterby-Smith et al., 2012). Overall, the reality is fixed, knowable, and can be measured directly under the positivist assumption.

The other position of epistemological assumption is another philosophy that different authors named variously such as: Post-positivism, Constructionism, and Interpretivism (Crotty, 2003; Ponterotto, 2005; Easterby-Smith et al., 2012; Saunders et al., 2012). According to Ponterotto (2005), there may be some impact between the subject of investigation and the researcher in the research that follows the post-positivism assumption. This is in line with the study of Weber (2004) which states that the interpretivist approach suggests there is a relationship between the reality and the real world of people who observe it. This means that reality is not rigid and cannot be separated from the socio-cultural influencing issues, behaviour, and attitudes of individuals. However, Weber (2004) claims that various factors, such as gender, cultural beliefs, and culture itself are subjective to the reality in the interpretivist assumption. This means there can be multiple socially constructed realities with each person having their

own view on what they perceive the reality to be. In the constructionist or interpretivist perspective, the meaning (knowledge) is not discovered, but constructed and acquired through personal experience (Crotty, 2003: 9). Therefore, different people may construct and have different meanings for the same phenomenon.

According to Saunders et al. (2012), different types of epistemological assumptions influence the way of conducting research and using quantitative or qualitative data. In other words, epistemological philosophy that leans toward positivism mostly supports quantitative approaches, whilst the interpretivist philosophy mostly supports qualitative methods. As this research investigates stakeholders' perceptions of the utilisation of social media in teaching and learning processes, the perceptions of participants and the researcher are vital. Therefore, the epistemological philosophy of this research leans towards interpretivism.

4.2.4 Research approach

As research questions are different, different techniques are required to answer them. They can be answered by using either empirical methods, or through existing academic studies in the research area. According to Collis and Hussey (2013), there are two main research approaches: inductive and deductive. The former is appropriate for interpretivist or phenomenological research based on collecting information followed by developing theories. In contrast, the opposite direction is taken in the deductive approach used for positivistic research, in which the theoretical background of the research is considered first followed by generating hypotheses by gathering data to test them (Bryman & Bell, 2003). The present study seeks to investigate lecturers, academic leaders and students' perceptions of the utilisation of social media in teaching and learning processes at a selected higher education institution in Saudi Arabia. It takes an inductive approach for analysing qualitative data. The adopted research approach and design are detailed in the subsequent section.

4.3 Choice of Strategies and Methods

This section discusses the research strategies and methods thoroughly that were used in the study. Remenyi et al. (1998) state that research strategy is directed, and a complete process for conducting research. It is a general plan, consisting of a set of action(s), which the researcher can use to answer the researcher's questions and achieve the research goal (Saunders et al., 2012). The research strategy is guided by several factors in research, which are: the research aim, objectives, questions, participant access, approach, existing

knowledge, time, and resources of data. On the other hand, the research methods are ways of collecting data to answer the research questions, and to fulfil the research objectives in the study. Therefore, different methods and strategies that were used for collecting data are discussed in the following sub-sections.

4.3.1 Qualitative versus quantitative approaches

Govaert (2009) states that collecting information is the most difficult and challenging part of any study. This requires the researcher to follow a specific procedure for distinguishing the data collection sample and the techniques that will become part of the research. Furthermore, considering the type of data and information that are gathered during the research is the main element, this can affect the techniques to be used for analysing the collected data. In general, data are either of qualitative or quantitative nature. In the present research, only qualitative data were collected. According to Bryman (2012), qualitative data allows for exploring participants' views which are distinctive in nature. In other words, qualitative data is mainly based on people's perceptions, their thinking patterns, and reactions which usually differ. The main advantage of collecting such data is that it is likely to provide a thorough understanding of the views of respondents in research. On the other hand, a main drawback is that collecting and analysing qualitative data is demanding in terms of resources and time required.

4.3.2 Adopted approach

The importance of identifying the philosophical approach of the research lies in the fact that it is the foundation for choosing and developing the strategies and methods to be applied during the research. In the previous section, it was discussed that the philosophical approach of this research leans towards subjectivism and interpretivism in terms of ontology and epistemology (see 4.2.2 and 4.2.3). These approaches are best presented by using qualitative methods because they are concerned with the actions of actors as a group, the details of a situation, the reality behind these details, and subjective issues. In this present research, the role and involvement of stakeholders, lecturers, academic leaders and students, are vital because their perceptions, experiences, and understandings in the education industry are potentially valuable sources of knowledge. Therefore, this study was conducted through a purely qualitative approach using initially a pilot study with university lecturers in Saudi Arabia to test the questions and procedures proposed for semi-structured interviews with educators and leaders, and then focus groups with students. The questions were found to be suitable, and their wording did not need any

adjustment. This pilot phase was followed by conducting semi-structured interviews with educators and leaders, and then focus groups with students to collect useful data.

Attempting to reduce complex phenomena by simplifying and controlling variables is very difficult (Scotland, 2012), which is why a qualitative approach was adopted. The qualitative nature of this present research is guided by the interpretivist paradigm so that the socially constructed reality of social media application in an educational setting can be understood through direct interviewing of lecturers, as well as other key stakeholders of academic leaders and students. According to Saunders et al. (2009), this paradigm helps to understand the social relationships existing between different variables, which makes it appropriate for this research as opposed to positivism that is better suited for artificial, detached, or experimental conditions, or cause-effect relationships. This study is not focused on testing for specific outcomes of social media usage as impacts; rather, it is on perceptions and experiences, which are socially constructed realities although positive and negative effects are considered as shaping those perceptions and experiences.

4.3.3 Key research characteristics and methodology

Table 4.2 below summarises the key research characteristics of the present study, and the adopted methodology of Qualitative Content Analysis (QCA) is detailed further below.

Table 4.2: Key research characteristics

Research characteristic	Detail
Research paradigm	Interpretivism
Research approach	Inductive
Type of data	Qualitative
Research methodology	Qualitative Content Analysis
Research goal	To describe the phenomenon under study (lecturer perceptions of using SM in a Saudi HE context)
Data collection methods	Individual interviews and focus group sessions
Data analysis process	1. Selection of units for analysis 2. Coding and categorisation 3. Adjustment of categories
Research outcome	- List of themes and categories - List of findings of the study - Identification of corroborated, contradicted and new findings

Qualitative content analysis (QCA) has been used historically as an analytic method for analysing textual materials (Elo & Kyngas, 2008), mainly to analyse “the content of media text to enable similar results to be established across a group of text coders” (Priest

et al., 2002:35). Hsieh and Shannon (2005:1278) defined QCA as “a research method for subjective interpretation of the content of text data through the systematic classification process of coding and identifying themes or patterns”. Along a similar line, Schreier (2012:1) described it as “a method for systematically describing the meaning of qualitative material”. Abrahamson (1983) asserted that QCA can be used to examine virtually any kind of content, including data from printed media, narratives, interviews, observations, focus groups, and open-ended surveys.

QCA has been criticised however, due to issues of deformed meanings and simplified interpretations as a result of the categorisation and breaking down of texts into quantifiable components. A prominent critique, Kracauer (1952) discouraged its use, and promoted the implementation of a qualitative approach to content analysis instead, to help extract meanings and perceptions from text more holistically. However, QCA is flexible in that it can be used with either an inductive or deductive approach, or a combination of both.

In QCA, the data is classified into categories based on similarity of meanings (Moretti et al., 2011), which may be either explicit or inferred (Hsieh & Shannon, 2005). Instead, the focus in QCA is on extracting categories from the data without necessarily looking for linkages. The data collected in the present study was analysed for identifying themes and suitable categories to which codes were then applied under a QCA methodology.

4.3.4 Research design

The research design adopted for this study is presented in Figure 4.1 below. It comprises three steps in data collection phase after the initial pilot phase. During the data collection phase, two sets of semi-structured interviews were conducted, firstly with lecturers, and then with academic leaders. Subsequently, focus group sessions were held with several students in each group in the third step. The sequence is arranged in this way so that the perceptions and experiences of lecturers are ascertained first before those of the other key stakeholders of interest in this study, namely academic leaders, and students. The responses of the academic leaders and students were then used to clarify and interpret the perceptions of the lecturers.

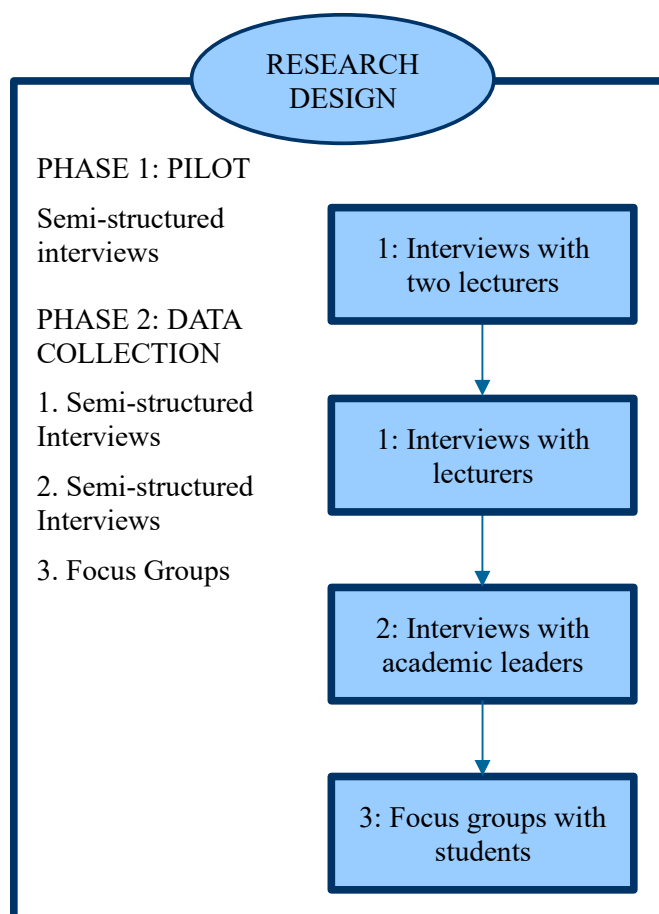


Figure 4.1: Research design

The semi-structured interviews were complemented by focus group sessions with the students. It was expected that the interviews and focus groups would lead to the following where stakeholders comprise lecturers, as well as academic leaders and students:

- Understanding the use, role, rationale, benefits, drawbacks and other impacts of social media usage in Saudi higher education;
- Gathering the views, opinions and perceptions of the stakeholders on social media usage in Saudi higher education; and
- Knowing the experiences of the stakeholders on social media usage in Saudi higher education.

Each of the adopted methods is detailed and discussed in the subsequent subsections together with rationales for their selection and points relevant to their planning and preparation.

4.3.5 Semi-structured interviews

An interview is normally a face-to-face communication between the researcher and the interviewee, which is a method of collecting qualitative data, and where the verbal responses are stored. This means that participants are allowed and have this opportunity to express themselves without the limitations of closed-ended questions, or an answering or writing set. According to Fontana and Frey (2005), an interview may be unstructured, structured, or semi-structured. Unstructured means there will be no pre-determined questions during the interview, and a structured interview means the interviewee will receive a list of questions that are structured to respond to. Semi-structured means the interviewer provides a list of questions and themes that are flexible, and which can be changed during or after the interview. In other words, as the interview is taking place, the interviewer may come up with new questions from the responses of the interviewee. In this type of interview, both the interviewer and interviewee have the opportunity to express their opinions without any restrictions. This is because semi-structured interviews allow for asking open-ended questions in which there is still a schedule, but there is scope for probing (Cohen et al., 2007), and this makes it particularly suitable for investigating intangible things.

4.3.6 Rationale for semi-structured interviews

The semi-structured interview was adopted as the main method to apply in this study to allow for in-depth and open-ended discussion, which supports this exploratory research. This type of interview has been conducted in previous studies examined in the literature by Kerawalla et al. (2008) who subsequently identified emergent factors arising from the qualitative data; Hrastinski and Aghaee (2012) who used them to explore students' perceptions and experiences to shed light on different dimensions of social media; by Alhamadi (2013) who employed them as part of a multiple data source strategy because they allowed participants "to tell their realities and lived experiences in social media" (p.121); and by Buqawa (2015) who combined them with field studies and online questionnaires as part of a mixed-methods study, and thematically coded the data before applying a code scheme to describe students' learning experiences.

In some previous studies, the interviews were conducted as follow-up for obtaining qualitative data after a survey, as in studies by Sobaih et al. (2016) where the semi-structured interviews were arranged "to further explore the potential for use of social media as well as barriers for teaching and learning purposes" (p.299), and Zelick (2013) in which the interviews were described as enabling the researcher "to explore in greater

depth the reasoning behind, and development of, the specific practices of participant institutions” (Yates, 2009:93). However, a survey was avoided because it would only have provided general data that would not have described real cases of perceptions and experiences. Observations were not undertaken because they are too time-consuming (Lokesh, 2018) and were unnecessary, and an experimental design was also avoided because the situation it creates is artificial and does not therefore represent real-life conditions.

Semi-structured interviews are suitable for gathering data on intangible aspects of a phenomenon, such as people’s beliefs, values, and assumptions. In the present study, the agenda was to ascertain perceptions and experiences of lecturers, academic leaders, and students on the use of social media in higher education, which are intangible aspects. For this purpose, semi-structured interviews had the advantages (noted by Miles & Huberman, 1994) that they not only provide clarification during the data collection process but may also improve the quality of the data. In this regard, Cohen et al. (2007) indicate that structured and unstructured interviews have more limitations for respondents to answer the interviewer’s questions and provide less flow of answers as compared to semi-structured interviews. Semi-structured interviews, also referred to as ‘qualitative research interviews’ and non-standardised interviews, enable interviewees to answer questions in depth and in their own way (Saunders et al., 2012).

4.3.7 Interview protocol

As with applying any research method, drawbacks also need to be considered so that ways to deal with them to alleviate their impact can be arranged beforehand. For instance, semi-structured interviews tend to require careful planning before carrying out the interviews (Lodico et al., 2010). This usually requires developing an interview protocol to guide the data collection. In the present study, the semi-structured interviews were planned for carefully and an interview protocol was also arranged. This protocol contained the following two parts, as outlined by Lodico et al. (2010):

- A header with places to record the interviewer’s name, date and location of interview, and background information on the interviewee. Additionally, it includes a script for reading to the interviewee to explain the purpose of the study and detail how the findings will be used, and a statement of confidentiality.
- Preliminary questions to be used in the interviews, which will serve as a starting point since the qualitative interviews are going to be flexible. These serve to help

begin the discussion, as additional questions may then be asked according to the responses.

The preliminary questions comprised four sections: (1) general background information, (2) use of social media, and communication with lecturers and students outside of class, (3) potential benefits of using social media in teaching and learning, and (4) challenges of employing social media in teaching and learning.

4.4 Pilot Study

4.4.1 Phase One: pilot studies

This section is about the pilot study and development of the instruments in which data were gathered through semi-structured interviews conducted face-to-face that lasted between 45 minutes to one hour. A pilot study can be defined as a small-scale study that is carried out to explore areas that may require enhancement and improvement. Mackey and Gass (2005: 43) describe a pilot study as a 'small-scale trial of the proposed procedures, materials and methods that sometimes also includes coding sheets and analytic choices'. An initial step to apply a study through field work is to conduct a pilot study to ensure that the interview questions are understandable and clear for participants to avoid any misunderstanding or ambiguity in the questions. It is an important means of assessing the feasibility and usefulness of the data collection methods, and for making any necessary revisions before they are used with the research participants. In addition, the pilot study is important because it assists the researcher in getting feedback not only to help refine the questions, but also to check the clarity, length, difficulty and validity of the instrument, and possibly also its ability to be analysed (Wilson & McClean, 1994). Cohen et al. (2011) strongly recommend conducting a pilot study to avoid risking the standard or quality of the questions. Moreover, it was necessary for the researcher of this present study to obtain some experiences before embarking on the main study, as this facilitated identifying issues to be avoided (Chan, 2007; Ercikan & Roth, 2009). Cohen et al. (2007) proposed that a pilot study is a good way to improve and obtain knowledge of the research process, suggesting that "It may be better for the teacher to develop a pilot study and uncover some of the problems in advance of the research proper" (2007:56). Furthermore, it helps to gain a full picture of the empirical work through experience obtained from implementing the pilot.

Yin (2011:37) mentioned that

"Pilot studies help to test and refine one or more aspects of a final study, for example, its design, fieldwork procedures, data collection instruments or

analysis plans. In this sense, the pilot study provides another opportunity to practice. The information from a pilot study can range from logistical topics (e.g., learning about the field time needed to cover certain procedures) to more substantive ones (e.g., refining a study's research questions)".

In light of the above-mentioned recommendations, it was deemed appropriate for a pilot study to be carried out.

4.4.2 Preparation for the pilot study

A pilot study was conducted with two university lecturers in Saudi Arabia prior to the main study. The pilot study was started with the following objectives in mind:

1. To enable the researcher to gather data for analysis that is meaningful, comprehensible, and clear (Gay et al., 2000; Lokesh, 2019).
2. Testing the text in the interview questions (Ticehurst & Veal, 2000).
3. To confirm the interview questions.
4. To be familiar with participants' responses (Ticehurst & Veal, 2000).
5. To predict the reliability of the interview questions.
6. To analyse the participants' points of view regarding the clarity and readability of the interview questions.
7. To estimate the time period for the interview.
8. To improve the interview questions in order to ensure that the participants understand them completely, and therefore that they may provide acceptable responses.

4.4.3 The pilot study sample

Before starting the pilot study, it was important to ensure that the sample population was representative of the main study sample (Phillips & Soltis, 2004). Thus, for the pilot study, two Saudi lecturers presently working at Saudi universities were asked to participate. They provided responses as a preliminary pilot study. As a result, the pilot study sample was considered to be representative of the main study sample. The similarities were twofold. Firstly, both participants shared a similar background in terms of being lecturers, and they had experienced similar systems of higher education in Saudi Arabia. All government universities in Saudi Arabia have the same system in terms of teaching and learning styles. Secondly, the participants were similar regarding teaching experience,

which was more than three years. Both participants shared similar experiences concerning the integration of social media in their teaching approach.

4.4.4 The pilot study

The data were collected by means of conducting semi-structured interviews. The interviews were conducted face-to-face, and they lasted between forty-five minutes to an hour. They were recorded using a recording device. The responses were then written as transcripts to be analysed. The contact outline sheet was completed instantly after finishing each interview, so that the chance of forgetting or omitting important information could be avoided.

The questions developed were initially written in English and then translated into Arabic to make the respondents feel comfortable in responding. Maxwell (1996) identified four kinds of translation, of which back translation is common among Arabic scholars. This includes translation of the target language, a grammar check, back translation into the source language and grammar check, then a pre-test to ensure proficiency. Within the study, the reflective diary questions were initially developed in English. The questions were then translated into Arabic, checked for grammar, and then translated again into English and grammar checked to ensure proficiency before presenting them to respondents in Arabic. The sample participants answered the questions in Arabic, and their responses were then translated into English, and then translated back into the Arabic language. The translated versions were returned to the participants to check whether the copy they received seemed correct to them. The researcher checked two samples of interview transcripts with another translator to ensure accuracy. The translations were checked for grammar to make sure they were correct, and the responses were analysed accordingly.

4.4.5 Outcome of the pilot study

It can be noted from the results of the pilot study that most of the interview questions were generally understandable and clear for the participants. Nonetheless, the feedback and data analysis pointed out that there was a slight issue with the original interview questions; thus, a revision was once again carried out after a discussion with the translators. For instance, the researcher combined question one (Do you use social media tools?) with question two (What purposes are using social media for?) to become (Do you use social media tools? For what purposes are you using them?).

Two questions were removed based on the feedback from the participants. The first of these was: “Do you have any opinion that SM would be good for education?”. This was removed because the responses would have been similar for question six: “In your opinion, what is the role of using social media for learning purposes?”. The second one removed was: “How would you describe the relationship between students and SM?”. This was removed because the question did not add any value to the interview. Another third question was reworded. It was originally phrased as: “Do you teach face-to-face, hybrid, or online courses?”, and was reworded to: “What is your experience of using social media in teaching and learning?” Once this was done, the researcher then proceeded to make the final improved version for conducting the actual interviews.

The lecturers confirmed that the questions asked of them were clear, understandable, and non-invasive. Consequently, only a few minor changes were made to the original questionnaire and schedule. As this study aimed to collect data from a University in Saudi Arabia, the back-translation technique was used while developing and answering the interview questions. That is, the interview questions were initially written in English, and then translated into Arabic for the purpose data collection. All the interviews were conducted in Arabic, and all of them were recorded as well. The collected data in the form of interview transcripts were then translated back into English before commencing the process of data analysis.

4.5 Focus-group Interviews

According to Morgan (1997: 12), a focus group interview involves interviewing several people simultaneously in which the researcher asks questions, and the participants give their responses. However, unlike an individual interview, this type of interview relies on interaction taking place within the group based on the topics supplied by the researcher. This interaction is vital for a focus group to work and provide useful data. This feature of a focus group was also highlighted by Cohen et al. (2011) who described a focus group as involving interaction on a topic supplied by the researcher rather than a “backwards and forwards” between the interviewer and the group.

4.5.1 Rationale for focus-group interviews

The focus group method has been regaining popularity among researchers, especially in the social sciences and health research. Some of them adapt the method to suit their particular research needs. Since a focus group can be conducted during any phase of the research process, it can be used for exploring the aims of a study (Kreuger, 1988), for

example, to explore attitudes of participants (Kitzinger, 1995), their knowledge and experiences, or for probing how and why they think the way they do. It may also be used to evaluate the effect of a programme (Stewart & Shamdasani, 1990), or to enhance programme activities (Race et al., 1994). An important aim of a focus group, therefore, is to give participants opportunities to participate, including those who may have difficulty in articulating their thoughts. The focus group thus empowers participants who may otherwise be excluded from the study (Liamputtong, 2011).

Focus groups can be arranged for either single-sex or mixed groups of participants. This means it is possible to use this method in the present study in which there are both male and female participants. Cultural and religious restrictions do not prevent the focus group method from being used as long as there is gender segregation, *Mahram*¹, or it is conducted online, and it can be suitable for ensuring a safe and comfortable environment for participants. It has been used, for example, by Bryman (2012) when working with women in low socio-economic classes, and when interviewing women of colour, as it gave them the opportunity to share their experiences of vulnerability and subjugation. That is, focus groups lend a voice to marginalised groups, such as the poor, ethnic minorities, and those with certain stigmatised illnesses (Liamputtong, 2011).

There are several more advantages to using the method of focus groups. For instance, it allows researchers to assess the data gathered from multiple groups of participants (Cohen et al., 2011), and the researcher can conduct this type of interview more quickly, and at less cost than if interviewing the participants individually or using other methods. The flexibility it offers also allows the researcher to elicit information or test various issues in diverse environments, which makes it suitable, for example, for interviewing less literate people or children, which may not be possible with other methods.

There are also certain disadvantages to using focus groups that must be considered before adopting the method. For instance, the researcher may have difficulty in obtaining participants or making them agree to be interviewed together. Coming together as a group can also be difficult if any participant is unable to be present at the same time or place as the others. Also, focus groups usually tend to be small, and convenience sampling for focus groups tends to limit the ability to generalise to the larger population, an issue that is common for qualitative methods (Stewart, 2006). This is because the data is typically

¹ The legal description of a *mahram* is anyone whom someone is permanently forbidden to marry because of kinship, breastfeeding, or blood ties.

very context specific. More importantly, there is a possibility of the interactions resulting in a negative outcome due to some participants influencing others' opinions, trying to control the discussion, or worse, if there is coercion in having to agree with certain points of view. The data generated from these situations would not accurately reflect the true views of all the participants in the group (Cohen et al., 2011).

Other disadvantages have been mentioned by Bryman (2012). According to his experience as a researcher, in a focus group, the moderator tends to have little control over the discussion compared to individual interviews, and it usually requires collecting considerably more data, which can become difficult to analyse. Transcribing can also be difficult and time-consuming because the researcher would need to recognise the different voices of the participants. This is especially so if more than one participant speaks at the same time, which can make it difficult to discern who said what. Therefore, for certain situations, the focus group method may not be appropriate given this possibility of causing unease or conflict among participants, and the potential for confusion. Neither of the above-mentioned issues were experienced as drawbacks during the course of this present study.

In previous studies examined in the literature review, focus groups were conducted in the studies on lecturers' perceptions on social media use (Zelick, 2013; Habibi et al., 2018), students' perceptions (Bennett et al., 2012), and influences of using social media (Alhamadi, 2017). It has also been adopted as a method in studies to identify benefits of using social media in education (Gao et al., 2012; Cheston et al., 2013; Hamid et al., 2015; Northey et al., 2015), including in terms of communication and interaction (Schroeder et al., 2010), improved engagement (Hennessy et al., 2016), and learning benefits (Alrasheedi, 2020), as well as drawbacks (Lenartz, 2013; Aifan, 2015; Dyson et al., 2015; Alasfor, 2016; Chromey et al., 2016), including learning issues (Kirschner & Karpinski, 2010). Notably, the study by Chromey et al. (2016) employed a combination of F2F (face-to-face) and computer-mediated focus groups. However, in the present study, it was considered adequate to arrange for only F2F focus groups so that the interviews with students can be guided carefully. In the study by Alhamadi (2017), the focus groups were used to establish whether social media is an appropriate tool for classrooms or not. An advantage of using focus groups for data collection is that they can be used for obtaining large amounts of information in the participants' own words, which can give the opportunity to the researcher to obtain deeper levels of meaning. Furthermore, since the researcher is typically face-to-face with the focus group participants, confirmations and

clarifications can be sought and given on the spot, so the responses of the participants can be obtained fully (Liamputtong 2011).

4.5.2 Planned content of focus group interviews

As with the semi-structured interviews discussed above, preparation for using the focus group method included the development of a preliminary list of questions that could be used to initiate and guide the discussions. This list was similar in content to the one developed for the interviews with lecturers and comprised four sections: (1) group information; (2) the use of social media, and communication with students and lecturers outside of class; (3) potential benefits of using social media in learning; and (4) challenges of employing social media in learning.

4.6 Implementation

4.6.1 Samples

The population under study comprises first and foremost university lecturers, and then academic leaders and students at the selected higher education institution from which the sample was obtained. Data were collected during the three-month period from mid-September to mid-December 2019 from a sample of interviewees and focus group participants at Taibah University in Madinah. Taibah University, which was established in 2003, currently has over 2000 academic staff and 64,886 students, 25,751 are males and 39,135 are females (Taibah University, 2021). As a public university, its vision, mission, roles and governance structure are common with other public universities, except for the few exceptions with some variances (which does not include Taibah University). Although this sample may reflect the wider population of academic staff and students across universities and other higher education institutions in Saudi Arabia, the qualitative nature of this present study does not allow generalisations to be made with certainty. As indicated previously, the data were collected in the second phase through three steps: Step One involved semi-structured interviews with lecturers. Step Two integrated semi-structured interviews with academic leaders, and Step Three involved semi-structured interviews with students in the form of focus groups. This section explains each step-in turn, including participant selection and administrative procedures.

4.6.2 Phase Two (Steps 1&2): interviewing lecturers and academic leaders

4.6.2.1 Participant selection

The sample of lecturers was obtained using the snowball sampling strategy. This strategy was considered suitable for the cultural context and conservative society of Saudi Arabia.

An initial group of six participants were thus selected based on relationships and their recommendations followed for obtaining further participants, with saturation determining the final sample size. After the 18th interview, it was noticed that similar responses were being given, which indicated to the researcher that a saturation point had been reached. A further three interviews were held to be sure that no new substantive information was being acquired. Thus, a total of 21 formal interviews were held with lecturers from different departments and faculties at the selected university. Of these, 13 were with male lecturers and 7 with female lecturers. Their average experience as lecturers was 10.75 years. Another interview involved a lecturer who had newly arrived one month previously. However, his data were not considered rich enough to include because of his lack of experience in teaching, and he was not therefore included in the final sample of twenty.

The sampling method applied for academic leaders was purposive. This has the advantage over random sampling of making it more likely to provide useful and relevant data. Bryant and Charmaz (2010:231) described it as helping to obtain “excellent participants to obtain excellent data”, which refers to the recognition of potentially rich sources of data directly relevant to the study. The samples for the study are shown in

Table 4.3 below, and a more detailed breakdown of the three categories of participants is presented in the tables in Appendix A. This strategy enabled the researcher to select only those individuals who were considered to have the best knowledge and experience on the topic, and who were thus deemed able to provide rich information, and also have the ability to examine issues deeply. A total of seven interviews were conducted with academic leaders, of which four were male and three were female. The four male interviewees were the Vice Chancellor, two Deans and the Head of the Department. The three female interviewees were two Vice Deans, and a Head of a Department.

The final sample comprised 20 lecturers (13 males and 7 females); the sample of academic leaders comprised seven staff (4 males and 3 females), and the four focus-groups comprised 5 and 7 males, and 7 and 6 females respectively. In the first sample of lecturers, the number of years' experience was also indicated. Data from the 21st participant interviewed were excluded from the analysis due to their inexperience and its poor quality. The average years of experience for all 20 lecturers is $215/20 = 10.75$ years. The categories of participants are mentioned in

Table 4.3 below, and a complete list of all participants in Phase One is given in Table 4.4 further below which includes mention of years of experience and the faculty to which each participant belongs.

Table 4.3: Obtained samples in the study

Phase Two	Participants	Method	Sample		
			Target	Obtained	Composition
Step 1	Lecturers	Interviews*	6	21	13 males, 8 females
Step 2	Academic leaders	Interviews*	6	7	4 males, 3 females
Step 3	Students	Focus groups	2 sessions, 5 students in each	4 group sessions, 5-7 in each (total 25)	2 male groups, 2 female groups

*Semi-structured

Table 4.4: List of all non-student participants in the study

Participant	Years of Experience	Gender	Faculty
----- Lecturers -----			
1	15	Male	Business
2	15	Male	Science
3	10	Male	Science
4	12	Male	Health
5	7	Female	Literature and Humanities
6	8	Female	Literature and Humanities
7	7	Male	Pharmacy
8	22	Female	Education
9	13	Male	Science
10	7	Male	Pharmacy
11	7	Male	Computer science
12	10	Male	Education
13	12	Male	Engineering
14	17	Male	Science
15	8	Female	Education
16	14	Female	Nursing
17	5	Female	Literature and Humanities
18	9	Male	Law
19	6	Male	Literature and Humanities
20	11	Female	Medicine

----- Academic leaders -----

1	14	Male	Training and Quality Deanship
2	12	Female	Training and Quality Deanship
3	22	Male	Pharmacy
4	10	Male	Education
5	16	Male	Foundation Year Deanship
6	9	Female	Society
7	18	Female	Education

4.6.2.2 Scheduling of interviews

The schedule of the interviews was determined by the faculty members of Taibah University in a form of a short introductory meeting. Each participant was handed out the research summary sheet developed by the researcher, which included all necessary information about the research. This information included the research topic, aim, objectives, principles related to confidentiality, details on how to withdraw from the study at any time, details on how to use the collected information in the study, researcher's contact information, and the interview questions. The interview timetable was determined two weeks after finishing the introductory meetings, and by identifying the faculty members willing to participate in the research.

4.6.2.3 Interviews

The participants were contacted by phone and email to obtain their verbal consent for participation in the interviews. Subsequently, invitation letters were sent by email to those who agreed, which outlined the details of the study, and for requesting a time to be arranged for a face-to-face interview. The interview questions were sent out in advance to help speed up the process and make the participants know what to expect. The questions asked to the lecturers and academic leaders are attached in Appendix B and Appendix C.

The interviews with lecturers took place in various locations including the lecturers' own office or house, in the library, and coffee shops. Of the seven interviews with female lecturers, four of them rejected the face-to-face format, so their interviews were held via Skype. The interviews with males were conducted in their respective offices, the two interviews with female vice deans were conducted via Skype, and the third interview with the Head of Educational Technology Department was conducted in a cafe.

The Interviews were scheduled to last between 45 and 60 minutes. However, the duration of each interview depended upon the individual and it varied from group to group. Prior

to commencing each interview, the aim of the study was again explained, and the participants were reminded that the interview would be audio recorded to enhance the accuracy of the transcriptions, and to ensure that the responses were quoted verbatim. Moreover, the interview guide was followed precisely to ensure that the information was always received in the exact order.

4.6.3 Phase Two (Step 3): focus groups with students

4.6.3.1 Selection of participants

The same sampling strategy as for academic leaders was applied to obtain the sample of students for the focus group interviews as potential participants. This strategy enabled the researcher to select only those individual students considered to have good knowledge and experience on the topic. Purposive sampling enables the researcher to select those who are most likely to provide rich information and have the ability to deeply examine issues. A total of four focus groups were conducted, of which two were male groups and two were female groups, and there were between five and seven students in each focus group. The two male focus groups comprised students in a class from the School of Arts and Humanities, the School of Business, and the School of Education. One female group comprised students from the Medicine who were interviewed at the hospital during their training period, and the second female group was from the School of Computer Science whose students were interviewed at a cafe. The questions asked during the focus groups are attached in Appendix D.

4.6.3.2 Preparation for the focus groups

Before arranging for the four focus group sessions, the selected participants were informed about the aim of the study, and the questions they were to be asked. Additionally, the researcher allowed participants to provide their contact details in case they were interested in being informed of the outcome of the new study, or to have any point clarified if necessary. With only one exception, all the participants willingly gave these details. A few options were given for the date and venue, and eventually all participants agreed on either one of two. Permission was also sought and received by every participant for taking notes and recording the sessions to help maintain an accurate record. As pointed out by Onwuegbuzie et al. (2009), it is the responsibility of the moderator to take notes. The recording was done using a recording device.

As per the advice of Winlow and Hall (2013) for managing the setting, it is also necessary to arrange for a relaxed and non-threatening environment for the focus group sessions, so that any issues that may affect the participants psychologically may be avoided. The

participants were given one week to prepare themselves for being interviewed together and were contacted again two days prior both for reminding them, and in case of any problem.

4.6.3.3 The focus groups

The focus group sessions were held in various venues that were familiar and comfortable for the participants. They were arranged for gathering the perspectives and experiences of students since they are in larger numbers than lecturers. Stringer (2007) provided some guidelines for conducting focus groups, which were setting ground rules, explaining procedures clearly, setting times, ensuring that everyone has an opportunity to participate, recording the information received and outcomes, and identifying an action plan for what should happen next. All these aforementioned guidelines were followed except for the last one since this present study is not action research, although participants were informed about how the information obtained was to be used. These guidelines were implemented as follows:

- Ground rules were established to direct the student interactions.
- The specific procedures of the research methodology were clearly explained to the students.
- The focus groups were held for the set time of 60 minutes.
- All participants in the four focus groups were given the opportunity to participate.
- The focus group sessions were recorded using a recording device for recording audio.
- Outcomes of the focus groups were noted on paper and a flipchart.
- At the end of the focus groups, the students were informed about how the information was to be used.

Prior to commencing the focus group interviews, the researcher introduced himself, informed them of his role as an interviewer and moderator to lead the discussions, gave brief instructions as to how the focus group would be conducted, assured them of the confidentiality of their responses (Bryman, 2012), reminded them of their right to withdraw at any time and without having to give a reason, and thanked all the participants for their participation. This included telling them that only one person should speak at a time. It was also pointed out to them that there are no right or wrong answers; the purpose was to ascertain their own personal thoughts, feelings, views and opinions, and that it was

perfectly acceptable to either agree or disagree by expressing a different position from others in the group. The participants were then given an opportunity to briefly introduce themselves to put them at further ease and ensure familiarity among all of them. This also helped to build the relationship between all interviewees to encourage their participation (Cook & Sapp, 2008).

The participants were given freedom to respond as they wanted in sharing their opinions, and the moderation was kept to a minimum to only coordinate the session by stimulating responses, ensuring fair participation by all participants, and guiding the discussion instead of dominating it, as per the advice of Kitzinger (1995). This approach is also necessary to deal with the potential issue of participants feeling under-confident in expressing their views (Winlow & Hall, 2013). In this case, the moderator has to encourage them to make their valuable contribution. As advised by Longhurst (2003), the nature of the topic was introduced first, and simpler questions were asked first before moving on to more complex and debatable issues. The interviews were scheduled to last between 45 and 60 minutes. The break for refreshments was given after the first half hour (30 minutes), and both sessions took the full appointed time of one hour. The participants were thanked again for their valuable time and participation at the end (Krueger & Case, 2000).

Fortunately, the potential disadvantages of focus groups identified earlier did not surface in the present study. Rather, the experience has been that the focus group method saved time, reduced expenses, and it allowed for exploring the phenomenon under study. It also enabled confirming participants' responses to ensure they were genuine. All focus group participants were fully cooperative, and there was no instance of any lack of clarity, simultaneous talking, attempting to influence opinions, control the situation, or causing conflict or disruption. In short, the focus groups with students were carried out smoothly and successfully.

4.6.4 Difficulties encountered

This subsection discusses some difficulties that were encountered during the data collection, and how they were overcome. The first challenge was the limited time in which to collect the data within three months. The data collection process was thus conducted within a short span of time due to being bound by principles of scholarship that only allowed the researcher to collect the required data within this limited period. The activities during this data collection period are summarised in Table 4.5 below.

Table 4.5: Activity during the data collection period

Week	Activity
1-2	Conducting and analysing the findings from the pilot study and refining the semi-structured interview questions.
3	Arranging for the faculty interviews with lecturers and academic leaders.
4-6	Conducting interviews with lecturers.
7	Arranging the meetings with academic leaders.
8-9	Conducting the interviews with academic leaders.
10-11	Arranging and conducting focus groups with students.
12	Transcribing the data and getting some points clarified.

The first two weeks were taken to arrange for, conduct and analyse the findings from the pilot study, and to refine the semi-structured interview questions for the actual participants. The remainder of the month was spent by arranging for the faculty interviews with lecturers and academic leaders, which was not straightforward due to their busy teaching schedules. These interviews took place over the next six weeks, and one interview had to be postponed which took extra time. The rest of the third month was taken by arranging for the four focus groups sessions, which were then held during the first half of the final third month. This left insufficient time for the analysis on-site, so the remaining period was spent only for transcribing and getting some points clarified, and the rest of the analysis was done afterwards. Although most participants agreed and were willing to participate in the research, it was difficult to schedule interview times with them. Some scheduled interviews had to be cancelled and rearranged due to other commitments of the participants, or unexpected issues that arose for them prior to the meetings.

Beside issues related to time and scheduling, there was the issue of recruiting female participants, due to the restrictive nature of the Saudi cultural context. Despite rapid modernization, Saudi Arabia as an Islamic country remains very conservative and proud of its culture. Religious and cultural values heavily influence social norms and social interaction. Privacy concerns and cross-gender communication are two of the main challenges that can significantly affect recruitment and interviews. Also, social norms can create difficulties and unforeseen challenges for recruitment and conducting qualitative fieldwork in Saudi Arabia. Once appointed, it was also necessary to reassure the female participants along with their guardians because they had to get permission from their guardians, and additionally for confirming that their data would be kept confidential and not disclosed to anyone.

In this study, two age groups of females were involved. The first group comprised lecturers and academic leader aged 35 to 50 years, and the second group comprised students aged 18 to 25 years. Due to their being females, the researcher advised potential female participants who agreed to participate in the study to get permission from their guardians to avoid any potential conflict in the future. Some of these potential participants wrote to the researcher through emails, text messages and through WhatsApp to tell that they would not be able to participate in the study due to refusal by their guardians. The researcher therefore had to spend some additional time for explaining to their guardians to convince them to allow their wives, daughters, or sisters to participate in the study. In some cases, the researcher allowed them also to be present during the course of the interview since they preferred that arrangement.

Another one of the difficulties the researcher faced was that there were some participants who refused to have the meeting recorded without mentioning any reasons. This was despite the researcher assuring them that all identity information in the records would be kept secret and would not be given to anyone. However, they still preferred their meeting to be conducted without recording it. Therefore, the researcher had to exert more efforts in writing their responses on papers whilst the interview took place.

4.7 Data Analysis

4.7.1 Transcription

After completing the data collection, the next step was to transcribe the contents of the recordings that were made, which took considerable time. Interruptions and superfluous content were not included since they did not add anything useful to the information. A number of options were available for conducting further analysis: conversation analysis, induction analysis, logical analysis, discursive analysis, pragmatic content analysis, semantic analysis, and sign vehicle analysis (Puchta & Potter, 2004). However, thematic analysis was used in the present study to analyse the qualitative data.

4.7.2 Thematic analysis and categorisation

This is what Saunders et al. (2012) call a 'categorisation approach' whereby data are classified and organised into meaningful segments and themes followed by identifying analytical subdivisions and coding. This process includes developing one group by gathering data from similar queries and reviewing them to identify any underlying patterns that exist. Finally, the narratives of the interviewees' responses can be used in

prose form to provide a general review of their perceptions. Themes and patterns can then be identified in the study (Saunders et al., 2012).

The focus was on the verbal information to help identify themes. Based on this thematic distinction, the data was colour coded to make it easier to identify the content related to each theme, which was then classified by putting related pieces together. Eventually, all the data were classified in this way under some or other topic. These themes and sub-themes identified in this study through an inductive approach after examining the data obtained are listed in the Findings chapter. They are categorised into the following five areas: (1) General use, coded as G, (2) Benefits of SM, coded as B, (3) Motivation and encouragement to use SM for students, coded as MS, (4) Motivation and encouragement to use SM for lecturers, coded as ML, and (5) Challenges in applying SM, coded as C. The main themes under each of these areas are listed in Table 4.6. Many of the themes and classifications are recognisable from the literature review. For example, Mnkandia and Minnaar (2017) mentioned establishing boundaries, Schroeder et al. (2010) mentioned workload issues, and Tezer et al. (2017) mentioned attitudes towards SM.

Table 4.6: Codes and main themes

Code	Area	Number of themes	Main themes
G	General use	2	<ol style="list-style-type: none"> 1. SM for personal use 2. SM for educational use
B	Benefits of SM	5	<ol style="list-style-type: none"> 1. Enhancing knowledge 2. Communication skills 3. Interpersonal skills and personalities 4. Gender sensitivities
MS	Motivation and encouragement to use SM for students	4	<ol style="list-style-type: none"> 1. Students' positive skills 2. Knowledge validation 3. Establishing boundaries 4. Social media part of curriculum
ML	Motivation and encouragement to use SM for lecturers	5	<ol style="list-style-type: none"> 1. Research and evidence 2. Lecturer's awareness and attitude 3. Tailored and accessible training 4. Voice for lecturers' control 5. SM and assessment
C	Challenges in applying SM	11	<ol style="list-style-type: none"> 1. Administrators' awareness and attitudes 2. Lecturers' age 3. Ethics and rules 4. Gender mix 5. Lecturers' workload 6. Validation of information and English resources 7. Complication of using Blackboard 8. Poor internet connection 9. Lecturers' voice resistance 10. SMPs are not designed for education 11. BB is the solution

Creswell (2007:148) describes thematic analysis as involving the preparation and organisation of data, then reducing that data into themes “through a process of coding and condensing the codes, and finally representing the data in figures, tables, or a discussion”. While coding, useful elements of the data collected are represented as segments in a meaningful way using codes for each of them. This process of compartmentalisation is carried out based on identifying patterns, classes, and other such features noticed, for example, by noting types, similarities and sequences that may be useful for distinguishing between the created segments. It is the outcome of this process that could lead to themes emerging from the data as broad classes of information classified based on similarities or commonalities. The idea behind the thematic analysis is that it can lead to understanding the phenomenon under study and insight into the perceptions and experiences expressed

that could then be used to draw conclusions. In the case of this study, the categories in the thematic analysis were anticipated to lead to enhanced understanding of and insight into the perceptions and experiences of lecturers on social media usage in Saudi higher education.

4.7.3 Thematic analysis process of Miles and Huberman

The categorisation method or thematic analysis focused on three main elements throughout the analysis process, as suggested by Miles and Huberman (Houser, 2014: 97) to develop meanings and draw conclusions in qualitative research: data reduction, data display, and drawing conclusions.

Data Reduction: This phase is about analytically coding (reducing) the data (verbatim) and referring to the context of the study where the data were collected. According to Miles and Huberman (1994: 10), 'data reduction' is a 'form of analysis that sharpens, sorts, focuses, discards, and organises data... that conclusions can be drawn'. Furthermore, this phase is about identifying data commonality and making connections between different parts of the data, which is important in thematic analysis. In this present research, several categories and themes were developed from reducing the collected data.

Data Display: This phase uses charts, diagrams, models, any other types of figures for displaying the collected data in the data reduction process, and their sub-categories. In other words, it presents identified themes and sub-themes in the form of figures, like the tables used in this present study. This phase can run simultaneously with the data reduction phase to provide better understanding of the meaning and concept of the collected data. These refinements from the data reduction stage resulted in the main themes, which include stakeholders' perceptions of social media usability for teaching and learning in Saudi Higher Education.

Drawing Conclusions: This phase can run throughout the categorisation process. According to Saunders et al. (2012), early conclusions may be vague, but they should be checked at different stages of the process of analysis. Furthermore, this phase can commence soon after identifying, developing, and noticing the repetition of the main themes during the data analysis process. This means the researcher should describe the significant elements of the themes in detail, which will be used to identify and create the sub-themes. It should be mentioned that specific quotes from the participants in the interviews should be used as evidence for the concepts and ideas within the themes and sub-themes.

Researchers state that using the method of categorisation is very useful and effective because it provides a systematic approach for analysing qualitative data like the interviewer's responses (Saunders et al., 2012). Stokes and Urquhart (2011) claim that this method enables the researcher to do close questioning and examination of data, which led to minimising any risk of assigning the data to preconceived assumptions. The following steps were followed to guide the thematic analysis (Braun & Clarke, 2008):

1. Familiarity with the data – beginning with the raw data using the transcriptions and reading the entire data to gain a general idea to become familiar with it prior to the analysis.
2. Coding of the text – based on what it is about, which involves categorisation.
3. Screening for themes – identifying potential themes for exploring similarities, differences, any causal relationships, contradictions, etc. and to also consider how they relate to the research questions.
4. Evaluation of the themes – reviewing the codes and emergent themes to ensure a good fit, and thereby reducing the potential for the interpretation to be coloured by personal biases.
5. Categorisation and renaming – refining and defining the themes that will be presented in analysis, avoiding complexity, diversity and having too many themes, then deciding which one(s) is/are interesting and why.
6. Report generation – writing the report and illustrating the complicated story about the data obtained to convince readers of the validity of the analysis.

4.7.4 Challenges

As with the semi-structured interviews, potential challenges and disadvantages were also considered to be prepared to deal with them. One major challenge with qualitative data is its typically large quantity, which can make it difficult to process with the additional risk of missing some important point due to rich data mixed with superfluous data (NN/g, 2019). Contradictory data may also be present to look out for. More disadvantages may be faced if no goals are set for guiding the analysis because the analysis could then be misdirected, and time would thus be wasted. To deal with these, goals were set for the thematic analysis, and the data was processed carefully and logically through coding to prevent the possibility or lessen the impact of the other above-mentioned potential challenges.

4.8 Evaluation of Research Quality

The validity and reliability of data are two important factors that should be considered by the researcher in assessing the quality of collected and analysed data (Saunders et al., 2012). These factors can be used in both quantitative and qualitative research. Validity in quantitative research refers to the concept, notion and hypothesis that indicate the way in which the research data is collected (Wainer & Braun, 1998). However, Gibbs (2007) describes validity in qualitative research as “the verification process of the findings employed by the researcher”. On the other hand, Kirk and Miller (1986) state that reliability determines the repeatability of the research. In addition, Saunders et al. (2012) refer to reliability and consistency of the research findings in case a different researcher uses the same data collection and analysis techniques on the same or another occasion. The reliability of the research findings should be addressed by considering three steps, which can be applied in both qualitative and quantitative research. Following these steps can provide conclusive and better results:

1. The degree of measurement used.
2. The stability of the measurement over time.
3. Investigating the similarity of the measurement.

Furthermore, researchers indicate four concepts that should be considered by a researcher to determine the validity and reliability of the research (Saunders et al., 2012; Yin, 2014). These concepts are internal validity, external validity, reliability, and objectivity (authenticity). Guba and Lincoln (1994) identify four alternative quality criteria, which are the ones considered in this study. They decomposed ‘trustworthiness’ into (1) dependability, which requires consistency and replaces the quantitative concept of reliability, (2) credibility, which is a truth value and replaces the quantitative concept of internal validity, (3) transferability, which is analogous to generalisability and replaces the quantitative concept of external validity, and (4) confirmability, which relies on neutrality and replaces the quantitative concept of objectivity (Cohen et al., 2017). The last one of confirmability is ensured by being as neutral or objective as possible and is covered in the subsequent section on positionality. Additionally, authenticity is also considered, as suggested by Maxwell (1996).

4.8.1 Internal validity or credibility

Although internal validity was created for quantitative studies, it can be applied for qualitative studies too. This type of validity refers to the way in which an experiment is

done efficiently in quantitative research to minimise the chance of confounding (Wainer & Braun, 1998). Researchers state that there are various strategies to apply internal validity in qualitative research, such as: clarification of the researcher's biases, experiences, and assumptions prior to conducting the research, peer/ colleague examination, triangulation, member checking, and engagement in the research situation (Guba & Lincoln, 1981; Patton, 2002; Merriam, 2009). In this regard, credibility should be used to measure the internal validity in qualitative research (Guba & Lincoln, 1994; Saunders et al., 2012). It involves checking whether the research findings are believable and acceptable from the viewpoint of the study participants. In other words, a phenomenon is explained from the perspective of the participants in qualitative research. Furthermore, Merriam (2009:55) states that a qualitative study depends highly on ensuring internal validity, as 'there are fewer "layers" between the researcher and the phenomenon under investigation'.

In the present research, a member checking strategy was used to check the internal validity of the findings, as to whether they reflect the true perceptions of the interviewees. Following this strategy requires the researcher to present the study's outcome to the research participants to get their views on the credibility and validity of the results (Merriam, 2009; Saunders et al., 2012). In this regard, the interview transcripts were returned to the participants to check whether their comments were reported thoroughly, apply any modifications, and ensure that they are satisfied with the outcomes. This was done through close engagement with the participants.

The qualitative data was additionally validated in two main ways: through careful selection of participants, and by triangulation. For selecting suitable interview participants, the interviews with lecturers helped the researcher to choose which academic leaders to include in the sample. It was decided to select the focus group participants based on increasing the chances of being able to cover a variety of subjects.

For further data validation through triangulation, the research was conducted in the specific order in which it was done, that is, interviews with lecturers from different colleges first followed by academic leaders from different positions, then focus group interviews with students studying different subjects. This enabled the data from the academic leaders to corroborate the data from the lecturers, and the data from the students to corroborate the data from both lecturers and academic leaders. Additionally, the male and female participants provided a further opportunity to compare the data for internal validity.

4.8.2 External validity or transferability

External validity indicates whether the research study can be generalised to other similar situations or not. It validates the casual inferences that were developed in the study. Researchers state that this type of validity is mostly used in quantitative research (Merriam, 2009; Saunders et al., 2012). However, a similar approach can be applied in qualitative research called transferability (Guba & Lincoln, 1994). Transferability ensures the study outcomes or findings can be applied to other contexts and settings based on conceptual similarities (Cohen et al., 2017). In this regard, all assumptions created during the qualitative research should be thoroughly and accurately highlighted by the research to ensure transferability. This can enable the researcher to at least generalise some of the study's findings to other contexts with similar assumptions and situations, if not all, although the concept of generalisation applies to quantitative research.

In the current research, the transferability of the qualitative findings was determined by investigating all assumptions that made the research applicable at Taibah University. Transferability was ensured by clarifying the underlying assumptions and the nature of the context in which the study took place to make it easy for readers to compare with other similar situations. Specifically, it involved outlining the way in which the outcomes may be applied in other similar contexts. Additionally, the richness and detail of the analysed data together with clear explanations and discussions could help readers judge how well the findings and outcomes can be applied as well.

4.8.3 Reliability or dependability

Reliability of research findings refers to reviewing both the units of measurement and tools that were used in the study. In other words, it is concerned with the quality of measurement used by the researchers (Saunders et al., 2012). However, assessing the reliability in qualitative research is slightly challenging compared to quantitative research because the responses and thoughts of the research participants are different according to their experiences. This will lead the measurements to be strictly defined. In this regard, it is suggested to use the dependability method because it can provide a similar reliability scale (Guba & Lincoln, 1994). Dependability refers to identifying factors that are potentially useful to change the context in research. This can lead to identifying the reasons for the change. In other words, reliability can be achieved when the contexts are similar (Merriam, 2009). Researchers state that the concept of dependability is in line with ensuring reliability or consistency in qualitative studies (Clont, 1992; Seale, 1999; Saunders et al., 2012).

Consistency of data can be reached by thoroughly investigating and checking the raw data, data reduction products, and through taking process notes during the data collection and analysis processes. In this present research, dependability was achieved by thoroughly checking the data, taking process notes, highlighting factors that could change the research context, retaining 'evidence' in the form of transcripts and recordings, and through reflexivity on the researcher's role.

4.8.4 Authenticity

Uniqueness and quality of research is highlighted further by authenticity in qualitative studies. According to the Sage Encyclopaedia of Qualitative Research Methods (Given, 2008: 44), authenticity is an important issue to ensure the research is credible and genuine not only in terms of the lived experiences of participants, but also in terms of its wider sociopolitical implications. It goes beyond research validity and reliability because it considers how worthwhile the study is, and its impact on culture and community. Some criteria for strengthening the authenticity of this research would be fairness, ontological authenticity, educative authenticity, catalytic authenticity, and tactical authenticity (Guba & Lincoln, 1994).

The research would be fair and without bias if the participants are given access to the inquiry and their views and perspectives are treated fairly, ontological authenticity is established if the participants gain more understanding of the social context, educative authenticity is established if they appreciate the viewpoints of other stakeholder groups, catalytic authenticity would arise if the research is able to stimulate some participants to take action, and tactical authenticity refers to their degree in doing so. In the case of the present research, fairness in analysing and reporting has been maintained, but as far as the other authenticity criteria are concerned, the discussion tries to establish the worthiness and highlight the implications of the study. It is then at the discretion of the participants to take note of its value and potential mentioned to derive further benefit from this research.

Furthermore, Guba and Lincoln (1994) advise there should be a balance between authenticity of research findings and uniqueness of research. This can be achieved by reviewing qualitative papers, and by making sure that in any similar contexts, the result can be the same. The need for authenticity, being unique and no replication in research are important, which can be ascertained by peer review of previously published studies. Such a process enables other researchers to review the contexts to maintain the

authenticity of the presented paper, which also strengthens related concepts of trust and efficiency.

To sum up this section on research quality, the question of validity, reliability, and authenticity should be considered by the researcher in any qualitative research (Guba & Lincoln, 1994). In this present research, internal validity was achieved through reviewing the credibility of the research participants. In addition, the transferability method based on the research assumptions was used to determine external validity. The reliability of the research was determined by using the available context, and by assessing the dependability of the research. Finally, the peer review process was used to achieve and maintain the authenticity of the research. Thus, these criteria enable other researchers to either confirm the findings or help to replicate them.

4.9 Positionality and Ethics

4.9.1 Positionality of the researcher

As the researcher shares the same cultural context of Saudi Arabia selected in this study, it is necessary to clarify his positionality due to his potential influence on the research process. Thus, rather than being a source of any bias, this reflects the researcher's insight and is out of pragmatic concern, as the researcher could in future apply the findings and recommendations of this research in the same context.

The similarity of background makes the researcher both an insider and an outsider at the same. This gave advantages of being familiar with the culture, for gaining access to conduct the study, and using Arabic to communicate natively. Theoretically, this can potentially affect being objective whilst undertaking the research, but "we can never truly divorce ourselves of subjectivity" (Bourke, 2014:3) while trying to be objective. It must be admitted that the researcher is also in favour of using social media tools in higher education, but this position was not allowed to influence the views of the participants. The researcher firmly and consistently remained as neutral and impartial as was possible throughout the course of the study. For example, no undue emphasis was given to advocating the use of social media, being in favour of it, or highlighting its benefits over its drawbacks.

4.9.2 Ethics

Considering ethical issues in any research is very important because it not only ensures that participants are protected, but also motivates them to participate in the research comfortably and without any reservations. The Economic and Social Research Council

(ESRC) (2009) indicates the importance of research ethics as: *"Research ethics refers to the moral principles guiding research, from its inception through to completion and publication of results and beyond for example the curation of data and physical samples after the research has been published."*

Tashakkori and Teddlie (1998) and Creswell (2003) represented the importance of integrity in the relationship between the researcher and the research. Ethics concerns the rights of the research participants, as well as others who may be affected by the conduct of the research. Ethical guidelines are followed to ensure none of the participants is inconvenienced or harmed in any way, and to ensure the gathered data are reliable, valid (Bryman, 2012) and accurate (Saunders et al., 2012). The first step was to identify potential issues that could arise and carrying out a risk assessment. Additionally, the ethical guidelines issued by the researcher's university, and the university at which this research took place, were adhered to carefully, as well as the UK Data Protection Act 1998/2018 and the updates to the GDPR. In particular, the following ethical guidelines were adhered to:

- Permission to participate was sought from the participants before they were allowed to participate, including permission to record the interview or focus group session.
- The nature and purpose of this research was explained clearly to all participants prior to their participation, including aims, objectives, how long it might take and their role or potential contribution.
- All participants were assured of their anonymity and the confidentiality and security of the data collected from them.
- The data collected in this study were only be used for the purpose of this research.
- The participants were asked for any concerns they may have and were given contact details in case they needed to find out something later on, including the outcome of this research.

It is very important to make ethical considerations when conducting face-to-face interviews. Formal approval for this study was granted on 5 September 2019 by the University of Hull Research Ethics Committee. Informed consent was obtained by email. All participants were fully aware of the audio recording and the voluntary nature of their participation. In addition, the participants were reminded that they had the right to

withdraw from the interview process and refuse to answer any specific questions they felt uncomfortable about. The participants were also guaranteed confidentiality and were assured that all their responses would be treated anonymously.

The code of ethics at the University of Hull enabled the researcher to follow guidelines on the procedures and principles for conducting this research. Initially, the researcher submitted a request for conducting data collection, which was approved by the Ethics Committee in the Faculty of Education at the University of Hull (see Appendix). The faculty provided a letter that indicates the researcher is conducting this research for academic purposes. Additionally, the researcher asked for permission to conduct the research in the School of Education at Taibah University by sending a letter to the Dean of the School. The researcher informed the school authority about the purpose of the research and the reason for selecting their school for conducting the study. The participants in the research were invited to take part in the study voluntarily under no pressure or stress. They were all given full details and information about the purpose of the study and the reason they were selected. Furthermore, participants were informed about the way in which their responses were protected and used in the study, and how the confidentiality and anonymity of their personal information at any point in the research were ensured. Prior to commencing the interview, the researcher asked the participants to read the consent form, and to voluntarily sign it. Finally, it was mentioned that all collected data were stored in a password protected computer, and only the researcher had access to them.

4.10 Chapter Summary

The present study principally investigates the perceptions of lecturers on the use of social media (SM) technology in higher education (HE) in Saudi Arabia by employing a qualitative research design under an interpretivist paradigm. Additionally, views of academic leaders and students were sought. It was conducted at Taibah University in Madinah, Saudi Arabia. The objectives were to identify key features of Saudi HE relevant to adopting SM, to identify how it is used both generally and at the selected institution to support teaching and learning, to examine relevant teaching and learning pedagogy, and to investigate lecturer perceptions on their use of SM. The interpretivist paradigm is appropriate given that the phenomenon under study is socially constructed, and the meaning is acquired or constructed through personal experience.

Qualitative data were collected by means of interviews and focus groups, and then analysed inductively. This helped to explore participants' views, perceptions, and

experiences in depth, and the use, role, rationale, benefits, drawbacks and other impacts of using social media in Saudi HE. The two data collection methods adopted in this research, namely semi-structured interviews, and focus-group interviews, were arranged in the following sequential order:

- Semi-structured interviews were arranged to allow the researcher to investigate and explore the views and opinions of the participants (lecturers and academic leaders). The interview questions included probing questions to enable the researcher to gain more details and clarifications about the working environment of the respondents and their views.
- The focus groups were conducted with the students (minimum five per group) to solicit their views on the same topic, and to explore how these can impact on the teaching and learning processes. They enabled gathering a large amount of information directly from students in their own words to obtain deep levels of meaning.

The data collected from the three groups of participants were recorded, transcriptions were made, and the data was then translated from Arabic into English during a three-month period. A pilot study was conducted first to help refine the phrasing of the questions in the research instruments. The focus groups were conducted with both male and female students. All participants were obtained purposively using the snowball sampling strategy. A total of 21 interviews were held with lecturers from different departments and faculties of which 13 were male and 7 were female lecturers. One dataset was deficient, so data from only 20 lecturers were accepted for analysis. The mean age of their experience was 10.75 years. The sample of academic leaders comprised 4 males and 3 females. The data from lecturers and academic leaders was complemented in the second phase of data collection from 2 male and 2 female focus groups comprising 5 to 7 students in each and a total of 25 students across the total four groups.

The interviews took place face-to-face in various locations, mostly in the participant's offices or the library, except for 4 with female lecturers that were held via Skype. They lasted between 45 and 60 minutes each. The male students in the focus groups were from the School of Arts and Humanities, the School of Business, and the School of Education, and the females were from the School of Medicine and the School of Computer Science. Research protocols were followed carefully, including informing participants of the aim of the study and how their data will be used, establishing ground rules, giving all students the opportunity to participate and share their opinions freely. A few difficulties were

encountered, such as recruiting female participants, alleviating privacy concerns and refusal to be recorded, but these were safely dealt with.

The data was then analysed by thematic analysis to generate themes that portrayed the actual context of the participants and their views as fully as possible. The process of thematic analysis was guided by Miles and Huberman's (1994) three stages of data reduction, data display, and drawing conclusions, which began with gaining familiarity with the data through to report generation in six steps. The overall research quality was maintained by considering the four criteria identified by Guba and Lincoln (1994) of dependability, credibility, transferability, and confirmability, and also authenticity. The positionality of the researcher and ethical considerations are made clear in the final section. The researcher remained as neutral and impartial as possible, and several ethical guidelines were followed, which included ensuring the participants gave their consent, clarifying the research nature and purpose, and assuring participants of their anonymity.

The next chapter examines the findings of this research through the provision of an analysis of the data gathered.

CHAPTER 5: Data Analysis and Findings

5.1 Introduction

The general aim of this thesis is to investigate the perceptions of lecturers, academic leaders and students on the use of social media technologies in Saudi higher education. There is a great tendency among Saudi academics in higher education to use Social Media Platforms (SMPs) as a way of communicating and facilitating the learning process, as explained in the literature review (Alqahtani, 2015, 2016; Alsolamy, 2017). This qualitative study explores the use of SMPs, principally among lecturers, but also taking views of leaders (administrators) and students to help with the reflection upon what the lecturers said. This study looks at lecturers' views alongside academic leaders and students on SMPs generally, and how they utilise them in teaching and learning, the challenges they face in adopting SMPs, and factors which might encourage positive use. To explore these participants' views, this study used the method of semi-structured interviews with lecturers and academic leaders, and focus-group interviews with a smaller number of students.

It should be noted that in the process of reporting the themes, the researcher focuses on the views of lecturers, but data from leaders and students are used for support and to add extra depth or different perspectives. Furthermore, at times lecturers and leaders had similar views, and was not easy to make a distinction between both, as many of the leaders are also lecturers, and they are involved in the teaching process, albeit they have more administrative duties.

The qualitative data generated from all participants were analysed using thematic analysis as suggested by Braun and Clarke (2008). This involved six main phases as explained in the methodology chapter. Many of the themes extracted across the three different groups were very similar although narrated from different perspectives. Hence, to avoid repetitions, the analysis here considers lecturers as the core sample (n=20), and the views of others (leaders and students) are used to support or expand on the themes. A total of 28 themes were categorised into general use, benefits of SM, motivation, and encouragement to use SM (for students and lecturers separately), and challenges in applying SM.

For the purpose of clarity, and alignment with the overall research aims, the analysis here is divided accordingly into four main sections that consider: general social media use, benefits of SM, motivation, and encouragement to use social media for lecturers and

students, and finally challenges in applying SM. For a full list of participants and their speciality as well as gender and years of experience, please refer to Table 4.4 in the methodology chapter.

Before analysing the key themes, the following table provides a summary of the themes and the subthemes that emerged from analysing the interviews and the focus groups. Table 5.1 is divided based on the key questions asked in the interviews (focus group) around the general use of SMPs and use for education purposes, motivation and encouragement to use SMPs, and finally challenges in applying such methods in HE.

Table 5.1: Summary table of key themes and subthemes

Area		Theme	Code	Sub-Themes
<i>General Use</i>	1	SM for Personal Use	G1	Communication News/information Leisure/videos WhatsApp as the main SMP
	2	SMPs for Educational Use	G2	WhatsApp for communication YouTube for sharing videos
<i>Benefits of SM</i>	1	Modern Methods	B1	-
	2	Enhancing knowledge	B2	Multi-sources of information Developing Academic discussions Improving English Language Skills
	3	Communication skills (WhatsApp groups)	B3	Students take initiative Enhancing Lecturer-student relationships Removing administrative Barriers Student-student discussion/engagement
	4	Interpersonal skills and personalities	B4	Shyness and Confidence Inclusive Environment
	5	Gender Sensitivities (females mainly)	B5	-

<i>Motivation and Encouragement to Use SM for students</i>	1	Students' Positive Skills	MS1	-
	2	Knowledge Validation	MS2	Lecturers' information selection Multi-Sourced Information Lecturers' availability
	3	Establishing Boundaries	MS3	Rules of engagement Safe space Reliable Administrator -
	4	Social Media Part of Curriculum:	MS4	Part of assessment Reduce Lecture Time
<i>Motivation and Encouragement to Use SM for Lecturers</i>	1	Research and Evidence	ML1	-
	2	Lecturers' awareness and attitude	ML2	-
	3	Tailored and Accessible training:	ML3	-
	4	Voice for Lecturers: Control	ML4	SM and Curriculum Time Allocation -
	5	SM and Assessment:	ML5	Students' assessment Lecturers' assessment
	6	Intrinsic and extrinsic rewards	ML6	-
<i>Challenges in Applying SM</i>	1	Administrators' awareness and attitudes	C1	-
	2	Lecturers' age	C2	Poor awareness and attitude of older Lecturers Old methods and preference of routine
	3	Ethics and Rules	C3	Lecturer Harassment and respect Invasion of privacy and Time Bullying between students and Exclusion No university e-safety protocols
	4	Gender Mix	C4	-
	5	Lecturers' Workload	C5	Integration of SM in assessment Time and Availability
	6	Validation of information and English resources	C6	-
	7	Blackboard is Complicated	C7	-
	8	Poor internet	C8	-
	9	Lecturers' voice resistance	C9	-
	10	SMPs are not designed for Education	C10	-
	11	BB is the solution	C11	-

5.2 General Social Media Use

To establish a good understanding of participants' use of SM, all interviews and focus groups focused on generating a baseline understanding of SM prior to discussing the role of SM in educational matters. All participants were asked about their SM presence, the type of SM platforms they use, and the purposes of their use. When analysing general SM use, two main themes emerged "SM for Personal Use" referring to general use unrelated to university/educational purposes, and "SM for Educational Use" which is mainly related to the use for SM in university/educational purposes.

5.2.1 Theme 1: SM for personal use [G1]

It was noted that all groups of participants (Lecturers, Leaders, Students) use at least one SM platform on their smartphones for different "*personal reasons*". There was a general understanding that SMPs are essential for "*the current digital age we live in*". When elaborating on their personal use, it was clear that there are some variations between the motivations/reasons Lecturers/Leaders and students for using SMPs.

5.2.1.1 Communication

Communication, and getting in touch with others (Family and friends) was the most common personal reason for all groups of participants: lecturers, leaders, and students. It was noted that all three groups of participants use at least one SM platform on their smartphones for different "*personal reasons*". There was a general understanding that SMPs are essential for "*the current digital age we live in*". When elaborating on their personal use, it was clear that there are some variations between the motivations and reasons behind lecturers, leaders and students using SMPs. Many explained that SMPs, in their definition, referred to social communications and connections, while others explained that the use of SMPs for communication is "*normal*" and "*common*". For example, Lecturer 12 explained:

"...most of my personal friendships are maintained through SMPs, I use them to communicate with my family and friends".

Furthermore, Leader 1 also explained that SMPs are common narrating:

"... I am not aware of anyone who doesn't use SMPs, anyone who has a Smartphone uses SMPs, I would say it is normal to use SMPs for communication".

5.2.1.2 News and information

Another reason given by lecturers and leaders for using SMPs was seeking news and information. In this case, they mainly referred to “Twitter” as an SMP that allows them to be “updated” with current news and areas of interest to them. They also explained that convenience for such information, and this gives them another way of generating information rather than frequently using “Google” as a search engine as a source of information. Lecturer 11 explained:

“I get most of my information through SMPs, I follow news channels, newspapers, football results and through my Facebook Account and Twitter I get regular updates.”

5.2.1.3 Leisure and videos

The focus of students apart from communication, was watching short videos online for leisure and uploading some videos, while communicating with others. Watching videos or clips, was common and agreed upon by most students, males and females alike, although girls are more likely to follow videos by influencers as reflected in their focus group. One female student in Group 3 explained:

“I follow influencers on their YouTube, Facebook or Instagram and I get regular fashion and Makeup videos”.

This view was similar to that explained by a male student in Group 2 who explained:

“Through my SMPs I get regular funny videos, shared by a friend and in turn I share them with others, this helps me when I am bored or when I want a break from education”.

5.2.1.4 WhatsApp as the main SMP

As all participants used SMPs, it was clear that WhatsApp was the most used. Almost all of them used it. This was followed by Twitter, YouTube, Facebook and Instagram. Twitter was mentioned more among Lecturers/Leaders while YouTube, Facebook and Instagram were mentioned more among students. Leader 5 narrated:

“I use WhatsApp all the time, I have family groups, work groups and it is the easiest for me to use as I am not into Facebook and other SMPs which are too complicated for my age”.

One student in Group 4 highlighted:

“If you check my phone, you will see many messages or notifications from different SMPs, but I would say that WhatsApp is the main one”.

Another student in Group 1 explained that:

“Each SMP offers something different, it depends on what you want from SM, and perhaps WhatsApp and twitter are more formal.”

5.2.2 Theme 2: SMPs for educational use [G2]

This study was mainly focused on the use of SMPs in educational settings or for educational and learning purposes. The previous theme clearly indicated that most participants had used one or more SMPs; and although it was challenging to distinguish between personal use and educational use, it was clear that almost two-thirds of the lecturers and leaders use one form of SMPs or another, while all students have experience in using SMPs in facilitating the learning and educational process.

5.2.2.1 WhatsApp for communication

When asking about the use of SMPs in educational settings, this particular SMP was the most common. It was used by lecturers, academic leaders, and students alike to establish communication between *“lecturers and leaders”*, *“course leader and students”* and *“between students”*. It was also clear that the nature of communication is often centralised around *“lecture times”* or *“uploading useful learning resources”*. Lecturer 10 explained:

“With each course (module) I establish a WhatsApp group and I asked all my students to participate, this allows me to send them useful information to read, let them know if there are changes in lecture theatres or lecture times”.

Another female Lecturer (5) explained:

“Some of my students use those groups to ask questions and keep in touch with me”.

From the leaders' perspective, they facilitate SM to communicate with colleagues due to their busy schedule. Leader 5 explained:

“As a head of department, I like to be involved with my staff and sometimes it is hard to see them in my office, I, and they find it easier to communicate on WhatsApp”.

From a student's perspective, communication seemed to be the *“default”* feature of social media as one student in Group 1 explained:

“It is normal to use WhatsApp nowadays. It is very convenient, and I have a few groups already”.

5.2.2.2 YouTube for sharing videos

Many Lecturers explained that they use YouTube in their teaching, but not many create their own YouTube videos. Two lecturers and one student explained that they have their own YouTube channels, and they like using it for educational purposes. Those videos are

open to everyone and are not only those related to the course (students or lecturers). Lecturer 11 explained his enjoyment in educating wider audience online and reaching more viewers:

“Teaching computer science and programming is not easy. Sometimes, the classroom lecture is not enough. I enjoy spreading knowledge, and I have established my own YouTube channel and invited all my students and others to participate and watch my educational videos that are based on the delivered curriculum. Such videos are online for anyone, and I like it when other students across the country make use of them”.

One student in Group 2 explained his love for teaching and education, and he takes the initiative in educating others too:

“I enjoy video streaming, and I try to develop my own skills, and sometimes I share my videos with my peers, so they understand the material from a different perspective”.

5.3 Benefits of SM

Lecturers, leaders, and students were asked to explain their views about the benefits or the role of SMPs in facilitating their education or learning process. In doing so, a number of key themes emerged centralised around the “modernity” of SMPs, the benefits of communication and skills developed as a result while allowing or mitigating gender related sensitivities.

5.3.1 Theme 1: Modern Methods [B1]

“Modernity” was a word often mentioned in the same breath as SMPs. Many acknowledged that SMPs are essential tools that need to be integrated into education simply because they have become normal and influential in the current “digital age”. There was a sense of expectation, especially from lecturers and students that SMPs are “expected to be used” to facilitate education. Lecturer 9 explained:

“I am aware that many of my students were literally born with a mobile phone in their hands, and to them this is almost a third hand, although I am little older, I found it hard at the beginning to accept the role of SMPs, but now I think it is common sense, as a Lecturer I have to be open and modern and utilise whatever tools that help my students achieve their learning goals.”

A female student in Group 3 stressed that:

“SMPs must be used, they are modern, and they are accepted by our generation, and as a female I find SMPs very useful as it allows me certain freedom and autonomy in my educational methods”.

5.3.2 Theme 2: Enhancing Knowledge [B2]

A crucial advantage or benefit from using SMPs in educational setting is that it facilitates the “*enhance[ment] of knowledge*”. It was commonly explained that the “*affordances*” provided by SMPs can facilitate education and increase knowledge. This role of lecturers is crucial in providing sources of information, relating to the curriculum, videos and articles that aim to provide students with enough resources to read an article, watch educational videos, or be involved in educational discussions with peers. Such affordances from SMPs can be very beneficial and advantageous to all students and educators. Lecturer 18 explained:

“Many times my students do not understand what I explain during the lecture, maybe they are not concentrating 100%, maybe the materials I am presenting are challenging and perhaps they are distracted, and I always sense it when my students are confused, to help them I send useful YouTube videos on the WhatsApp group, or an easy article to read, and many of my students find that helpful in making them comprehend the topic I am teaching”.

From the students' perspective they seek their own resources too, and they share them between themselves, and not only rely on what the lecturer is posting to them. One student in Group 1 explained:

“Lecturers will send us some information to read, but at times they are difficult to understand, so I find my own materials and share them with my friends, other students do the same”

Students also highlighted the importance of SMPs in enhancing knowledge during revision and exam times, for them this is often the time they have a lot of questions for their lecturers and as a result they get different sources of information to read. One female student in Group 4 explained:

“I don't get to see my lecturer that often to ask questions, but I find it very helpful that they give us information via WhatsApp, I find some of it easy to read and I don't have to go and find certain books from the library”.

5.3.2.1 Multi-sources of information

Another key advantage of SMPs is that they offer students different perspectives and different sources of information compared to “*traditional library resources*”. Some lecturers are keen for their students to “*watch videos*” and “*read different peer-reviewed articles*” as ways of learning and solidifying information. They refer to some students being better at listening and watching videos, and others are better at reading information, and hence they view SMPs as good ways to share such information. Lecturer 19 explained:

“Some students are more visual, and they don't like to read much, others want to read and memorise information, that's why I send them articles/website resources on WhatsApp to help them learn”.

Another Lecturer (16) who discussed the importance of familiarity and convenience in using SM for education explained that:

“Students spend most of their leisure time watching videos, and a lot of it non-educational, I feel that when I send them short educational videos they are more likely to watch them, and not only rely on lecture PowerPoint presentations of books that I recommend. Videos are convenient, and they could watch them anytime, and then they have discussions in WhatsApp, and then they learn from each other”.

From a student's perspective, they explained that they do not rely only on what the lecturer provides, which sometimes is minimal according to them, but they make an effort in explaining information to each other in “lay person format” or exchanging useful resources between themselves, as they realise that the lecturers are minimal in their resources. A student in Group 2 explained:

“Sometimes, my friends on the WhatsApp group find great resources to add to the ones sent by the Lecturer, others translate videos given in English or educational websites, we can choose which source to rely on, sometimes I feel my WhatsApp is a library of different resources”.

Another student from the same group added:

“I actually rely on the different resources and information sent through SM when I revise, and I manage to pass my course with a good mark”.

5.3.2.2 Developing academic discussions

Lecturers often referred to the “awkward environment” in lecture theatres sometimes due to the lack of questions or discussions among students. They stress the importance of such discussion in the learning process, and in enhancing knowledge. Lecturers feel that SMPs, mainly WhatsApp, allows students to ask questions to their lecturers and to others in the group chat. This allows the students to ask questions around key topics, and in the process of discussion they get their answers or gain a better understanding of the topic. This particular theme was common among lecturers and students. One lecturer explained (5):

“I wish that my students ask me questions during the lecture, they are very passive, however they are proactive when using WhatsApp, they ask questions and sometimes I don't have to answer them as fellow students answer the questions and I only compliment the students or students who answered the question”.

Another lecturer (15) explained:

“Sometimes I just post a controversial question, and let students provide their answers or views on WhatsApp and provide their own arguments, although not all get involved, some do so passionately”.

For students, they referred to discussions between themselves as a way of understanding information that was perceived as “difficult” during the lecture time, or when they find it hard to follow some “boring lectures”. One student in Group 3 explained:

“I learn more from WhatsApp and YouTube than I learn from books or my lecturer, I think once one understands a topic he will explain it to others in an easy way, and we discuss it and learn especially before the exams”.

Another student from the same group added that:

“I do a lot of discussions with my friends on SM because I find it boring to sit in a lecture room for two or three hours listening to an exhausting and boring lecture”.

5.3.2.3 Improving English language skills

A number of lecturers and students explained the importance of English as a language, especially in scientific courses. They feel that SMPs have helped them improve their English language skills and enhanced their vocabulary and scientific jargon. They acknowledge the importance of English as a language when viewing YouTube videos, and some resources which are written in English. In doing so, they also explained that not many students are proficient in English. One Lecturer (5) explained how the learning process through SM makes her feel proud of her students:

“I get very proud of my students when I see them watching videos in English and translating materials, English as a language is always challenging to Saudi students and teaching staff too”.

This was aided by a student in Group 4 who explained:

“Sometimes I spend hours translating English articles, and some of our Lecturers use English jargon in the classroom, so I use Google Translate to understand information and share it with my friends, and I feel my English language has improved as a result”.

5.3.3 Theme 3: Communication Skills (WhatsApp Groups) [B3]

Communication related skills is a key theme which emerged when asking about the types of benefits or advantages that SMPs have on students and lecturers. Both lecturers and leaders stress on the importance of establishing a good line of communication with students, while students themselves stressed the benefits of having an open online space with their course leaders. Participants feel that SMPs have facilitated better

communication overall. It should be noted that communication is often discussed with reference to “WhatsApp groups”. When looking at the specific benefits resulting from such open communications, four key subthemes emerged: Students take the initiative, enhanced student-lecturer relationships, removal of barriers, and student-student discussion.

5.3.3.1 Students take the initiative

Lecturers, leaders, and students who use SMPs in educational settings explained the importance of students taking the initiative online. It seems that such tools (mainly WhatsApp) allow students the chance to be proactive, and to ask questions to the lecturer, or to other fellow students with ease. Accordingly, Lecturer 6 reflected on his encouragement in seeing students taking charge:

“On our WhatsApp group, I observed some students taking charge of matters and facilitating conversations, they take initiative and ask questions to me or others. And as a lecturer this is very encouraging”.

Another Lecturer (5) explained that he encourages students to learn, and to not rely exclusively on his own materials:

“I often tell my students to use me as a guide and become more independent in their learning and this helps them explore or seek new knowledge”.

From the students' perspective, a number of students, males and females alike, explained that they are more in charge behind screens and feel they can encourage discussions. One student in Group 4 explained:

“As a female, I am more likely to engage behind a screen. I help create discussions, although some students or the lecturer could be passive”.

5.3.3.2 Enhanced lecturer-student relationships

This particular theme emerged among those students who feel that they could relate more to a lecturer who has an online presence. It is explained that SM presence encourages students to make comments, to develop a more “authentic relationship”, and that through SM, they see their lecturer as he/she is. According to a female student in Group 3, the lecturer is much less formal online, and also funny, and connects with her lecturers better as a result. She explained:

“In classroom my Lecturer comes across a little traditional and intimidating, but she is much nicer online, and I connected with her through WhatsApp because she is friendlier”.

Another male student in Group 2 explained that his lecturer treats him as a colleague, and not a student, and he admires that. He explained:

“My Lecturer encourages us on our WhatsApp groups to be ourselves, and he treats me and all of our group as adults and not as students and I think most of us love that... it makes us feel important I think”.

5.3.3.3 Removal of administrative barriers

Communication is enhanced when using social media, and as explained before, this is usually in reference to “WhatsApp groups”. It seems that students and lecturers alike view “office hours” “Lecturers’ busy schedule” as key administrative barriers that hinder communication chances for students. Students explained that “they no longer have to go to office”, or “book a time”, or “even email the lecturer”. They feel that when their lecturer is “online”, they can communicate with them better. One student in Group 2 explained:

“I have never seen my lecturer in his office, I ask him questions on our WhatsApp group”.

Another student from Group 1 explained:

“In my first year I was confused, and I wanted to meet my tutor in his office, and I couldn’t and that made me feel anxious but then when he formed a WhatsApp group, I reached out to him for help and that made me feel confident”.

Similarly, lecturers often referred to “office hours” as a key issue for them as they cannot limit students’ time, and hence they try to answer as many questions online. This allows students to ask questions to put their mind at ease. Lecturer 3 explained:

“At the beginning of the year, students ask so many questions, and I don’t have many office hours to see them all, and sometimes they can’t make it to my office because they are busy in a different lecture or a different university site, as a result I asked them to follow me on twitter and formed a WhatsApp group. I invite as many questions as possible and then I reply to all, most of them are similar questions, but I think this helps me communicate with them and also, they no longer have to book a meeting with me”.

5.3.3.4 Student-student discussion and engagement

Group discussion via WhatsApp is commonly referred to in interviews. Lecturers, leaders, and students refer to engagement between students themselves. This is to explain that students often find a topic to talk about or discuss, and that could be following a lecture or before the exam in an effort to revise. One student from Group 1 explained:

“Our Lecturer is passive at times, and that leaves us to have discussions between ourselves, and they could take hours. We do that nearer the exams”.

mostly, some of us might understand a topic better than others, and we seek help from each other”.

From the perspective of lecturers, they felt that students are learning from each other. They hear a different voice from that of their lecturer and find that they do have patience and respect for each other. For example, Lecturer 11 explained:

“My students are great, they help each other in a good way, in fact there are a couple of students there who are constantly teaching others, and they are much respected among their peers”.

5.3.4 Theme 4: Interpersonal Skills and Personalities [B4]

From reviewing the benefits of SMPs, as explained earlier, communication is the main “affordance”. Lecturers, leaders and students alike often talk about aspects of the influence of “shyness and confidence” in the communication process, and why SMPs offer students a way to compensate, and feel part of an “inclusive environment”.

5.3.4.1 Shyness and confidence

From the perspective of lecturers, they explain that some of their students are shy and reserved in the classroom. As a result, this leads to poor classroom engagement, and it makes the lecture a one-sided experience (Lecturer based). According to Lecturer 14, “Sometimes I feel I am the only one in the classroom”, and another explained (7) “students appeared shy and confused during the classroom”. However, lecturers also explained that such limitations or poor interpersonal skills are much improved online, especially among younger students. Lecturer 18 explained:

“During the first term my young students appear inhibited, but once I form a WhatsApp group, many find their voice, ask questions by themselves and this has a ripple effect on their face-to-face sessions”.

Lecturer 15 added that students are afraid of getting questions wrong in the classroom, and they find answering behind screens a lot easier. She explained:

“In classroom students don't like it if they get an answer wrong, they worry about what others say, but somehow that is not an issue online, maybe because they think no one is going to judge them”.

From the students' perspective, they feel that the online world has offered them the chance to be heard and to be themselves, questioning the traditional ways of learning in the process. For example, a female student in Group 4 explained:

“I am extremely shy, and I don't dare to look at my Lecturer's eyes in class, but on WhatsApp I am very active, I find the confidence to have a discussion because I can filter what I have to say”.

5.3.4.2 Inclusive environment

When discussing SMPs and online technology, leaders and lecturers highlighted the importance of offering students “*an inclusive experience*”. They explained that every student should feel part of the university and should not feel isolated for any reason. Hence, the word “*inclusive*” emerged a few times in the data. When asked to elaborate, one leader (1) explained:

“The university is an opportunity to learn useful skills or knowledge that prepares the students for working life, regardless of his backgrounds, differences, the chance to learn just like everyone else and here in this university we try to offer our students every chance to learn by giving them the best tools”.

Another lecturer (17) reflected on one of his students who commutes a long way to attend lectures because of his family responsibilities, and who feels that having an online presence helps the student to be part of the course. She explained:

“One of my students (female), for family reasons, comes to the lecture and leaves immediately and never has the chance to collaborate or communicate with his colleagues, and he explained to me how he follows me online and how the WhatsApp group makes him feel that he is part of the university despite his own struggles”.

A few students feel they are part of a group and feel the same as everyone else. Students' views appear to support the idea of inclusivity offered by SMPs. One student explained:

“Online we are all the same, your looks your name doesn't mean much and that makes me feel comfortable”.

5.3.5 Theme 5: Gender Sensitivities (Females Mainly) [B5]

An important advantage of SMPs is that it helps girls and boys to mix and communicate in an educational capacity. Most female lecturers and students have referred to gender related issues in the context of Saudi Arabia, and SMPs have started facilitating more openness and acceptance. Saudi universities are known to be gender-segregated, and female students were passionate about how SMPs compensate for that. One female lecturer (6) explained:

“Some girls in the first year were resistant to exchanging their mobile number to facilitate a WhatsApp group, it is a cultural thing, and they are not trusting of others. And a lot of them have their own presence on various SMPs. I have to be very sensitive to that and explain the importance of being part of a WhatsApp group, but I also offer them the chance to opt-out”.

Another female lecturer (17) explained that she has overcome her own challenge of communicating with fellow male lecturers or leaders and feels that she is more equipped in talking to them behind screens. She explained:

"I communicate with university administrators via emails mainly, but I also use WhatsApp in groups, and I feel I could be very objective and explain my opinions and my views in a true way, as some of the formal face-to face meetings are very intimidating".

A female student in Group 3 explained that she gets in touch with other male academics for help and support, and she finds them easily on SMPs:

"There are more male Lecturers with SMPs, and they are very helpful on their Twitter, I have communicated with a couple, and they were very helpful in guiding me to useful reading materials".

Another from the same group added:

"I don't see why communicating with male Lecturers is a problem for some, for me it is not".

5.4 Motivation and Encouragement to Use Social Media for Students

Part of the purpose behind semi-structured interviews and focus groups with lecturers, leaders and students was to establish the factors that encourage or motivate them to use SMPs. In answering these questions, participants explained that there are a number of indicators, which either "forced" or "encouraged" them to utilise SMPs. Overall, it seems that students "expect" SMPs to be used whereas the majority of lecturers and leaders feel they "should use" SMPs.

5.4.1 Theme 1: Students' Positive Skills [MS1]

For lecturers who use SMPs, they often refer to students born in the "digital age", and that SMPs are "natural" to them. This was an attempt to explain that students have enough skills and abilities to utilise and benefit from SMPs. As a result, Lecturers feel encouraged to use them as long as they benefit students. Lecturers often refer to students being better equipped than them in utilising SMPs. Lecturer 8 explained:

"I am an old/traditional Lecturer, I wouldn't say I am very skilled in SMPs; however, I know that Social Media is a language that my students speak very well, and from experience I found out that they learn through SMPs too."

Students explained that they are good users of technology and feel that their lecturers are not on the same level as them. It was mentioned that they spend so much time on their phones that when lecturers use SMPs, they are more engaged. One student in Group 2

described this situation: *“I am lazy and addicted to my phone and social media”*, he also explained that:

“When Lecturers use SM, I feel I can participate better, especially that I don't have to go and make an effort to find books or resources, everything is available on my WhatsApp”.

Another student from the same group explained:

“I help my Lecturer in WhatsApp, I am his representative, he is not good with SM and sometimes he asks me questions about creating links for videos and resources.”

5.4.2 Theme 2: Knowledge Validation [MS2]

SMPs offer students better communication as explained before, and part of that is the availability of their lecturer to select the right information and offer different resources for students to read. This process of knowledge validation is made one of their key subthemes and are referred to as: Lecturers' information selection, multi-sourced information, and lecturers' availability.

5.4.2.1 Lecturers' information selection

Using SMPs, such as WhatsApp or YouTube, lecturers feel that they could choose information sources and send them to students at their convenience. They refer to general information from online sources and university-based information, which they could then forward to all their students. Lecturer 12 explained his way of using SM to send important information or resources for the convenience of students, he explained:

“Sometimes, I see questions from one of my students, asking about an article or a book that he cannot access, I then go to the university website, copy a link of the online-resource and share it with all students, this way I guarantee that he/she has access to the right information”.

Another Lecturer (17) explained that:

“Information online is evolving all the time, and sometimes I find useful articles online, from journals or newspapers that I find interesting and relevant to my module, I then direct my students to read them.”

Lecturers acknowledge that a lot of the information resources needed for their courses are available online through the university library. They feel that students are too *“lazy”* to search for them, and sometime students might not be confident that they have the right information to support themselves for their exams. As a result, lecturers feel that SMPs enable them to explicitly indicate the *“must reads”*. Lecturer 20 explained:

"I use WhatsApp just to follow up with my students and make sure that they read my materials, and they panic before exams, instead of sending an email to all of them, I just upload an article on WhatsApp... they don't have to work too hard".

Lecturers seem keen on their students reading the "right information" and they feel that a lot of articles and YouTube videos they use might not be very appropriate. When students share such resources between themselves, the lecturers are able to dismiss or encourage their reading. Lecturer 9 discussed the quality of the resources used online in chemistry:

"Internet is full of useful information, but some of the resources my students use to learn about chemical experimental research are not scientific or empirical and I feel I have to tell them to avoid reading some of them as they are either not empirically solid or not relevant".

5.4.2.2 Multi-sourced information (lecturers mainly)

With the convenience that social media offers, lecturers and students explained that reading from different sources (university and internet) allows them to understand lecture topics much better. They refer to some useful YouTube videos that complement the lectures, and some internet-based resources that also explain key topics from a different perspective. In support of this, Lecturer 4 explained:

"Following my lecture, I point to the reading list, and I also send some of my YouTube sessions to my students to further their understanding, other times I find useful videos of key scholars and I share them too".

Another lecturer (17) added:

"My students sometimes don't understand my power point presentations, so I refer them to a book chapter, video or I send them a small voice recording on WhatsApp to explain some key issues".

Although this was not explained in detail by students, it was mentioned by two that they find it helpful that their lecturers direct them to "different resources" readings instantly online. One student in Group 4 referred to her lecturer:

"Sharing an article, and short videos to compliment the lecture topic".

5.4.2.3 Lecturers' availability (TS)

Lecturers acknowledge that office hours are tricky for them. Some students find it difficult to arrange a meeting, and as a result they see social media as a good way to compensate for that. They feel that they can reply to students' questions or concerns online outside of traditional office hours. They also mentioned that most students often ask the same

questions, and when answering the question on a WhatsApp group, they feel that they can help the whole group in the same way, and not only the one who asks the question. One lecturer (7) explained:

“Students often ask me about exams, readings, marks and general advice and it consumes my office hours especially that they come to ask about the same concerns. Some students avoid coming to office as they do not want to wait around, therefore I think my WhatsApp group helps me being available to everyone anytime”.

Another lecturer (13) explained:

“Some students are too shy to ask questions, and I don't like making them feel left out, so if someone emails me a question, I like replying on WhatsApp via a voice message to reply to all students in case they have the same concern”.

Lecturers being “virtually” available to students outside of teaching hours is helpful to students. The students admitted that they message lecturers outside their working hours, and their lecturers reply when they are available. One student in Group 4 mentioned her surprise that the lecturer uses her personal time to respond. She stated:

“I am surprised that sometimes my Lecturer sends us resources late at night, he is also available before exams and I would answer all concerns promptly, this reassures me”.

5.4.3 Theme 3: Establishing Boundaries [MS3]

Lecturers in particular had views about the possibility of “regulating” online communications with their students. They explained that use of SMPs is voluntary, and there is no pressure to use them. However, students and lecturers might not fully adhere to professional standards. In this theme, three key subthemes emerged: rules of engagement and communication, creating a safe space, and providing a reliable administrator.

5.4.3.1 Rules of engagement and communication

Lecturers have not explained rules or a code of conduct that they have imposed on their students while communicating online. As a result, this has caused lecturers some concerns, and they feel that establishing rules might enhance and facilitate a better learning environment when using SMPs. Lecturer 17 explained:

“I will use my SMPs much more if I know I am protected by the university, and I feel my students too will benefit from some rules.”

Leaders also seem to be on board that rules regarding online engagement could motivate lecturers. Leader 2 explained:

“Students conduct online can be a positive thing to make discussions work, and at times it could waste students' and Lecturers' time. When I used WhatsApp with my students before, I emailed them a few rules that they needed to adhere to, for example, to be respectful to each other and respect my private time.”

5.4.3.2 Safe space

Safety concerns were mainly highlighted among female lecturers and female students. It was explained that lecturers' ability to create a “virtual safe zone” would allow students to be themselves and be more willing to exchange information and engage in discussions. A female lecturer (6) explained:

“Some of my students opted-out of the WhatsApp group because they think it is not safe for them to share their numbers, or they do not trust the other students in the group”.

A female student in Group 3 referred to her sense of safety online and explained that her own conservative values influence her sense of safety online. For example, she explained:

“I am a conservative and traditional girl, and being part of an online group, make me feel vulnerable, I don't know why, but I take time to trust others”.

5.4.3.3 Reliable administrator (lecturers only)

Lecturers explained that they use SMPs out of their own will, as described earlier, and they feel less equipped at times, especially older ones. The availability of an IT administrator would help them adopt SMPs. It seems that lecturers are not using SMPs to their full advantage. One lecturer (1) explained:

“Perhaps someone from IT could give us a course on how to use YouTube or Facebook, I had to ask my daughter to help me set up a Facebook account. I used it for a month and then gave up as I found it hard to maintain”.

Another lecturer (7) explained that many of his colleagues are not aware of various other SMPs, and they end up copying others. He reported:

“I helped my colleague set up a twitter account and a WhatsApp group, and they are not very active, they need help”.

Interestingly, a young lecturer (19) explained that he uses a YouTube channel and WhatsApp, and he assigned one of his students to help him out as an administrator for the group. He feels that this allows him to manage online discussions and maintain a good learning environment more easily. He explained:

“One of my students works as an administrator, he facilitates discussion, tells students not to message after 6:00pm and he really makes life easy for me”.

5.4.4 Theme 4: Social Media Part of the Curriculum [MS4]

Another motivating factor to encourage students to use social media in the process of learning is to make it a “*compulsory*” part of the curriculum. For this, lecturers believe that social media engagement and communication should be “*part of the assessment*” and “*reduce the lecture time*” for them.

5.4.4.1 Part of assessment (lecturers)

To encourage the use of SMPs, some lecturers believe that such use needs to be formally incorporated in the curriculum and should be part of the assessments given to students. It was explained that staff would be able to mark students based on their involvement and collaboration on any of the adopted SMPs. Lecturers also acknowledge that this is a complicated process. They view it as a motivational factor for students, although it might be hard to maintain. Lecturer 16 explained:

“Not all students use WhatsApp, some choose to be silent and rarely or never engage in group chat. I never force them to do so, but if this was expected from them then I think they will engage more often.”

A couple of lecturers stressed on the importance of marking usage and participation in social media communication as part of the curriculum. They believe that would motivate students and also ensure better use for the purpose of education. Lecturer 5 is pleased by the efforts of some of her students online, and she wishes for that to be rewarded. She explained:

“I wish I could mark my students' participation. Their participation online is admirable, and I think many will get good marks as a result, this will help them be more creative online”.

Another Lecturer (14) was sceptical of the idea of marking however, explaining that:

“Giving students marks might help them but I don't wish to increase my own work, I will fully support giving marks if this was part of the curriculum and my office hours or teaching hours are reduced”.

5.4.4.2 Reduced lecture time

Although not a common theme, a few lecturers pointed out that sometimes they have to deliver long lectures. They feel that students' concentration drops as a result, and that this could exhaust them as a lecturer. They suggest they would support a reduction of teaching time in favour of providing online (Social Media based) teaching. In return, they feel students would be encouraged, as that means they don't have to attend long lecture hours. One lecturer explained (20):

"Sometimes I show my students videos during the lecture, and I feel that I could easily send those videos on a WhatsApp group, and they could view it in their own time"

He also explained that:

"As soon as I give students videos to watch they often ask if they could leave early and watch them at home".

Another female Lecturer (15) explained:

"Students learn better online these days, and some of us are too traditional and spend hours teaching, some of this teaching could be delivered online instead of the classroom. This would work for my students who have families and children to look after".

5.5 Motivation and Encouragement to Use Social Media for Lecturers

Lecturers and leaders were also asked about factors that might encourage them or other colleagues to utilise social media. Lecturers and leaders provided similar motivational factors, but also some differences in opinions. Leaders are often on the sceptical side of social media. They encourage usage of SM, but also often seek valid reasoning. This led to key themes emerging, namely *"research and evidence"*, *"Lecturers' attitude"*, *"tailored and accessible training"*, *"voice for the Lecturers"*, *"SM and Assessment"*, and *"rewarding Lecturers"*.

5.5.1 Theme 1: Research and Evidence [ML1]

Most lecturers and leaders are qualified with PhD level education. They stressed the importance of finding evidence to support SM. Many of the lecturers believe that SM has a positive influence on students' learning and engagement with the learning process. They also feel however, that *"fellow"* colleagues and leaders are sceptical about using SMPs. This was shown by the views of participating lecturers and leaders in this study. Lecturer 19 explained:

"An older colleague of mine thinks that I am wasting my students' time and often challenges me about the reasons for using WhatsApp with my students. He calls me lazy. I feel he needs hard evidence to be convinced. I think he is just in denial even though I sent him a couple of articles to read about the role of SM in education".

An academic leader (4) explained:

"More research is needed to show that SMPs such as WhatsApp, YouTube can support students, smartphones have become a major part of students' life and research needs to highlight the advantages of SMPs clearly and empirically"

among Saudi students. Maybe this would be a good encouraging point for Leaders and policymakers”.

Leader (5) showed his conditional support for SM:

“I am a supporter of technology, as long as it works. Some Lecturers use SMPs merely for communication with students, and I am not sure that is enough for me to support their use. I would like Lecturers and students to use emails for that purpose.”

5.5.2 Theme 2: Lecturers' Awareness and Attitude [ML2]

Younger lecturers explained that they are generally in support of using social media, simply because they have their own online presence on platforms, such as WhatsApp, YouTube, Twitter, or Facebook. However, they feel that older lecturers who have followed the traditional methods for a long time are yet to “accept” SM as a tool that could facilitate the learning process. Also, they explained that many, even some younger lecturers, are not taking full advantage of social media. For that reason, they feel that both awareness and attitudes need to change to adopt SM in Saudi universities. An older lecturer (8) explained:

“I use WhatsApp only, and that’s my ability, I am planning on retiring in few years and I don’t wish to get involved with SM, it is too complicated”.

A female Lecturer (17) explained:

“I feel that both female Lecturers and students need to come to terms with SMPs as an acceptable way of teaching or learning, many of them are concerned about privacy issues, and informing them of the benefits of SM might encourage them to at least try them”.

One of the Leaders (3) had strong opinions about lecturers' awareness and their attitudes stating that:

“Lecturers have the wrong idea about SM, they think they are using it for education, but they are using it for convenience only... I mean they use it to avoid seeing students in the office or to avoid students’ complaining about them. Therefore, I think some of the young Lecturers also need to acknowledge that they are not fully utilising SM, and maybe they need to read more about the possibility of integrating it in education in a serious way”.

5.5.3 Theme 3: Tailored and Accessible Training [ML3]

Following the earlier theme, many lecturers highlighted the need for regular support from the university in the form of workshops and training sessions that are specific to SMPs, and not only the “traditional ICT” courses they provide. They feel that workshops and

training need to meet their own needs as a lecturer and provide them with practical skills to use SM more efficiently. Lecturer 1 explained:

“Training is essential, I often rely on my fellow colleagues for simple tips on how to make short videos, how to delete them, how to form a WhatsApp group etc...”

A female lecturer (16) added that she doesn't know much about SM and how it works because she has no experience in using them and acknowledges the gap in skills between herself and other younger lecturers and students. She explained:

“Honestly, I am poorly skilled in SM, I am old school, and as I have a big family. I don't have too much time to even learn about simple SMPs, I feel an alien sometimes when my students talk about what they do online. Also, I know that our culture might limit or influence presence online, training should consider all of that, age, culture and gender related attitudes”.

Leaders explained that training does exist. They also try to bring new ideas and educate staff members as part of their professional development, although they acknowledge they do not provide “tailored training”. Leader 1 who had experience in training and development stated:

“We do have regular ICT training, some Lecturers attend, other choose not to, but if you ask me if there is a specific training session on how to use SMPs then my answer is no, we don't have anything like that”.

5.5.4 Theme 4: Voice for Lecturers: Control [ML4]

Lecturers often explained that they are “not being heard”, and that they are playing a passive role in the education process. This was particularly apparent among younger lecturers who explain that many of their leaders are older in age, and that they follow a “non-democratic” way of decision-making in general. For that reason, they feel that they have “no control” over certain educational matters, such as the curriculum and teaching time. They explained that using SMPs was merely a choice made by themselves, and not imposed by leaders, reflecting their “own control” over the use of SMPs, and that this is not a formal instruction by the university or part of the curriculum.

5.5.4.1 SM and curriculum

When speaking about their voice in educational matters, lecturers feel that their voice needs to be heard about involving SM in the curriculum. They explain that the university should listen to them in allowing greater presence on SMPs for them and their students to facilitate the education process. They highlight that typically the curriculum specifies

the number of hours, the topics, staff members as well as lectures and seminars. The curriculum does not mention anything about SMPs. One female lecturer (8) explained:

"I once asked a Leader to tell me if it is okay for me to share my Twitter and WhatsApp accounts with students, and he explained that was not part of the curriculum and I shouldn't do so. But then I realised that others do it anyway. I wish this was clear in the curriculum, so I feel more assured".

Another Lecturer (10) explained that:

"About 3 years ago I was viewed as a rebel because I used YouTube and WhatsApp with my students; no one likes change, especially older Leaders. The curriculum needs to be updated, and younger Lecturers need to voice their opinions more often".

The curriculum, according to some of the lecturers is fixed most of the time, and as explained earlier, there seems to be fear of change in that respect. This was further heightened by a lecturer (13) who argued that:

"The irony is that we are encouraged to use ICT by Leaders, but then they are not supportive of our new ideas about SMPs, on the one hand I understand that SMPs create more challenges for them as Leaders, and they fear change, on the other hand it could ease the pressure on us Lecturers too".

5.5.4.2 Time allocation

Most lecturers who believe that they do not have a chance or a voice in deciding their working hours, teaching hours or how much time they could give to SM outside the lecture mentioned this particular sub-theme, and because they often use SMPs willingly out of their own free will, they often end up working more hours than expected. As a result, they feel the need to have control over the time allocation in the curriculum and in social media. Lecturer 9 highlighted time as an issue, and the lack of a role for leaders in helping them:

"SMPs are time-consuming, and the problem is that this time is unaccounted for, and I am not paid for that, but I know the university did not ask me to use WhatsApp or social media, so I cannot complain, Leaders need to give us the chance to explain how useful our time online is to our students and maybe that would give us some control on how we limit lecture time and integrate online time."

Another female Lecturer (16) explained:

"My lectures could range between two-three hours, and then you have seminars too. Maybe seminar times could be accounted for online, I mean transform seminars online using WhatsApp for example, this would facilitate better discussion and that way I don't have to use my own personal time to follow up my students' questions online".

Furthermore, one leader (5) who referred to “*time online*” explained that due to his experience in using special media, he can never put a restriction on how much time “*Lecturers should spend online*”. And he explained that lecturers differ in their dedication, as some spend less time than others. He explained that:

“For us Leaders, time online is challenging, we cannot be sure about students’ attendance and Lecturers’ engagement. I know some would want us to reduce their office hours or allow them to do online lectures, but attendance and accountability becomes harder for us”.

5.5.5 Theme 5: SM and Assessment [ML5]

Another motivational factor to encourage lecturers to use SMPs is incorporating it within assessments. Although this was explained before, it was in relation to encouraging students. It seems that this also encourages lecturers to utilise SMPs. This theme refers to assessing students, as well as assessing lecturers in an effort to encourage their use of SMPs.

5.5.5.1 Students’ assessment

Although not many lecturers referred to this theme, it seems that the inclusion of SMPs in the curriculum as part of the assessment (e.g., exam, presentations, and essays) would compel or encourage lecturers to take the right measures to use them in an educational capacity. One lecturer explained (9):

“I explained before that I am under no pressure to use SMPs, but if I had to, and it was part of the curriculum and the assessment then I would surely adopt them fully because I would want my students to do well”.

Furthermore, Lecturer 15 raised the possibility of deciding the types of assessment that could be used to evaluate students’ use of SMPs in educational matters and highlighted an interesting suggestion. She explained:

“If I could, I would mark students’ engagement online and their participation and dedicate 10% towards the end of year exam mark, this would motivate students to learn and engage online. But I would only consider SMPs for engagement/participation not testing knowledge”.

Another lecturer (18) explained the possibility of making students more creative in creating their own YouTube videos. He stated:

“Maybe I could encourage students to create YouTube learning material as a way of presenting a piece of work. And then they would be able to share that with me and others too, and that would be marked as a presentation”.

5.5.5.2 Lecturers' assessment

At the end of each year, lecturers are often evaluated by their superiors. A few lecturers and leaders explained that incorporating the use of SMPs as part of their assessment would encourage their usage. However, they acknowledge that this might be a difficult thing to achieve, especially given that leaders and administrators are less aware of the usefulness of SMPs. One lecturer (10) explained:

"I spend a lot of time online helping students; it would be great if this was acknowledged by my head of department. My efforts are often ignored in that sense when I bring it to the end of year evaluation. Leaders only ask about what is expected of me in the curriculum, nothing else!"

Furthermore, Leader 1 explained:

"I would advise the inclusion of online engagement with students as part of Lecturers' assessment, I would ask Leaders and students to evaluate how their Lecturers are engaged outside lecture times online. But for that to happen, this needs to be part of the Lecturers' job specification".

5.5.6 Theme 6: Intrinsic and extrinsic rewards for lecturers [ML6]

Lecturers explained that they are often busy, and they find teaching times stressful and hard. In return, they explain that despite their independent attempts to use social media in their curriculum, they are not "thanked" or "appreciated" enough by leaders. In explaining that, they referred to "intrinsic and extrinsic rewards", which would encourage and motivate them to spend more time online and adopt SMPs as part of their teaching. To a number of lecturers, they feel that they are not appreciated enough and as a result, they do not feel part of the university and that this affects adversely on their confidence in their own skills. In relevance to SMPs and their use, lecturers explained that they would like to be unique and motivate students, but they feel that they are not encouraged "from above". One lecturer (12) explained:

"My students WhatsApp would ping every few minutes during exam time, that impacts me and my family life, yet I still answer. In return Leaders deflate me, by saying I shouldn't do this, or that I am wasting my time. Their acknowledgment and support would mean a lot for me".

Another lecturer communicated with her leader discussing how useful a group chat was for her and her students, but she was met with "ignorance". She explained:

"The leader I was talking to did not have any idea about what I was saying and was dismissive and off-putting."

One of the leaders (6) explained that he is aware of the many efforts made by lecturers in utilising SMPs and doing other valuable work but feels that leaders themselves are under

pressure to stick to the rules, which are not very adaptable. Furthermore, because SMPs are not part of the university policy, they do not feel they could support it or appreciate it. She explained:

“I understand lecturers' efforts in using SMPs, but I am encouraged to follow and evaluate their efforts based on the curriculum and that's why I and others maybe are not fully supportive”.

Lecturers often refer to working “*outside office hours*” in the evenings, at weekend and during holidays due to their use of SMPs with their students. They also acknowledge, as stated before, that this is not part of their job or what they have signed up to do as lecturers. But regardless of that, they feel that “*money incentives*” would encourage better adoption of SMPs. For example, Lecturer 18 explained:

“Why would I communicate with my students in the evening, I am not paid for that! Yet I still do it because I see the benefits. I am underpaid by the university, and my efforts are not financially rewarded”.

Another lecturer (6) explained that the university should work on its rewards schemes, that it should reward lecturers for innovation in their teaching practices and their dedication to the teaching process, and although validation and acknowledgement is needed, she explained:

“Financial rewards will make all staff members; especially older ones adopt SMPs as they have more financial constraints than younger Lecturers”.

5.6 Challenges in Applying SM

Participants were asked to elaborate on possible challenges in successfully applying and adopting SM in teaching. This question led to some common opinions, often centralised around poor awareness and preparation. This section analyses some key themes which lecturers, leaders and students think might limit or challenge successful implementation or application of SM. These challenging factors are also aligned with factors which might motivate lecturers to use SM, as explained in the earlier section. This present section elaborates on the following themes: Administrators' awareness and attitudes, lecturers' age, ethics and rules, gender mix, lecturers' workload, validation of information, complications in using Blackboard, infrastructure and internet, and lecturers' voice and input.

5.6.1 Theme 1: Administrators' Awareness and Attitudes [C1]

Lecturers predominately put some blame on administrators' inability to adopt new methods to reflect the modern “*digitally aware*” age of students. They feel that there is a

gap between them, their students, and their leaders in that sense. Lecturers, especially the younger ones, often explain the convenience of using SM and its potential, but they also acknowledge that some of their older peers who are also in “*admin positions*” are not warm to the idea of using SM, or that they cannot “*formally*” adopt it. Some lecturers attribute that to lack of awareness and poor attitude towards technology generally, and towards SM mainly because they don’t use it themselves. According to one Lecturer (3):

“Change comes from top to bottom, university Leaders or administrators need to formally instruct us to use SM, and right now I doubt that, as they are not fully aware of how useful WhatsApp or YouTube could be for me or my colleagues”

Lecturer 13 pointed towards a scenario he had in an administrators’ meeting when he noticed that some resist change, especially unfamiliar change. Lecturer 13 stated:

“Leaders are interested in how successful students’ are at the end of the year. In one meeting, someone raised SM as a way to facilitate better communication and learning among students, some of the Leaders were resistant saying that it would not work and that it would create more problems than benefits. But I also noticed that they are much older than me and are perhaps not comfortable with the change that SM brings”.

A female lecturer (15) raised an interesting point, explaining that fellow female leaders are also resistant to the idea of change, and that they also don’t see the benefits of SM. But she acknowledged that female leaders are “*disadvantaged*” in SM because due to cultural reasons, they have limited experience in SM. She explained:

“If you compare women and male Leaders you will find that women are less active on SM, and that makes them more resistant to SM, and I think that makes them less aware of the advantages that SM offers”.

Leaders (as participants) did not mention awareness or attitude as a challenge. However, they often diverted from criticising themselves or their own top-level leaders.

5.6.2 Theme 2: Lecturer’s Age [C2]

Age is often included in lecturers’ and students’ interviews, and less so among leaders. Age has a negative connotation to it. Older lecturers, or as some would say “*experienced lecturers*”, are viewed as resistant to change. They might have less awareness and poorer attitude toward SM, and they much prefer their “*old way*” and traditional methods of teaching.

5.6.2.1 Poor awareness and attitude of older lecturers

As explained earlier, administrators' awareness and attitude are viewed as challenges, and now lecturers' age is viewed as a challenge too. Perhaps the similarity here is that many of the leaders are also "*ex-experienced lecturers*". This would mean that naturally most leaders are also "*old lecturers*". Lecturers and students have often referred to age as a key factor. Lecturer 19 explained:

"If you look at all our Leaders, you will see that they are middle-aged or older, and convincing them of anything is a hard task. Imagine if I tell them about using Facebook for teaching".

A female lecturer (5) explained that she finds it hard to communicate with older lecturers, due to the respect she has for them or the intimidation that their age brings with it. She explained:

"Communicating with older Lecturers is not easy, they seem to speak a different language from me, I am much less experienced and at times I am made to feel that, hence bringing new ideas forward are challenging".

5.6.2.2 Old methods and preference of routine

Older lecturers are viewed as of a "*different generation*", or as one lecturer referred to them, as "*pre-technology generation*". It is explained that "*traditional methods*" "*routines*" are viewed as too comfortable for older lecturers, and for that reason they resist the change that SM brings. Lecturer 7 explained:

"One of the Lecturers here taught me when I did my bachelor's degree about ten years ago, and I can see that nothing has changed, he still follows the same methods."

He then added that this lecturer like others is "*either scared of change*". Another Lecturer (17) pointed to a gap or difference between "*older*" and "*younger*" lecturers, explaining that the integration and collaboration between both groups is challenging. She explained:

"In my first year, I didn't fit in well with my older colleagues, and I found myself in a group of younger Lecturers, it seems that older Lecturers and Leaders are more aligned and that they could resist some of the ideas we bring forward, SM included".

The view of an older lecturer (1) was interesting, confirming some of the opinions younger Lecturers have. He pointed to his preference and experience with SM.

"My generation used to work with blackboard and chalk, I like the old way, where I am the Lecturer, and my students listen and respect me as that. I used WhatsApp and I honestly felt very silly, it isn't for me, although I still use it, I

cannot force myself to like it. I am more comfortable in dealing with my students in my office or in the lecture room”.

From the students' perspective, although not elaborated in depth, some students referred to their lecturers as “*being old school*”, and that they sometimes do not get the fact that students' life is stressful, and that SM is “*part of their identity*”. One female student explained:

“I find the teaching methods, from some older Lecturers to be very boring, for example, instructing us to read a book chapter from the library, or print articles and bring them to the classroom, I would rather read about it online to save time and money”.

5.6.3 Theme 3: Ethics and Rules [C3]

An integral theme when considering the challenges in applying SM is the lack of guidelines, ethics, and rules of engagement between students and Lecturers. It should be pointed SM has not been “*fully adopted*” by the university, and that some lecturers and leaders think that this is a major obstacle.

5.6.3.1 Lecturer harassment and respect

Although not many reported “*harassment*” from students, some lecturers felt that some students “*misuse*” SM, and they display behaviour that is deemed as “*offensive*” to the lecturer. Lecturers reflect that a minority of students (among males) “*don't think before they post a message*”, and that this “*puts off*” lecturers from giving their best in utilising SM. One lecturer (3) reflected that:

“Although I ask my students to behave well online, sometimes they make jokes about something that I have posted, or even use some unfriendly emoji as a reaction, I personally find that unfriendly and unappreciative... On one occasion I had to take a couple of students off the group as a result”.

One female lecturer (5) recalled a hacking incident from a male student. She explained how one student got hold of her Twitter account, and communicated with all female students, and asked them to send their phone numbers. She reflected on this “*traumatising experience*” by stating that:

“As I use twitter, I have some followers and most of them are girls, and few boys. One day, I realised that my twitter account was hacked, and a message was sent to all my female followers to send their mobile numbers to me; this was a traumatising experience.... I contacted twitter and I managed to retrieve my account, but I still don't feel safe online... but this did not stop me from using SM with my students”.

The view of lecturers' harassment was echoed by leaders too, who were also lecturers in the past. Leader 3 explained:

"I wouldn't want my fellow Lecturers to be harassed and I would rather not put them in that position online... I have heard of some uncomfortable cases."

This was also acknowledged by students who feel that some of them are lacking in respect for lecturers, and they show that via SM. One student explained:

"One of my friends always makes jokes about our Lecturers' voice online, it makes me feel embarrassed."

5.6.3.2 Invasion of privacy and time

According to lecturers, forming WhatsApp groups develops an expectation among students that they could *"reach out"* to their lecturer anytime. Lecturers have reflected on their students *"often"* getting in touch with them at *"unsociable"* or *"out of work"* hours, which makes them feel uncomfortable or creates more work for them than expected. They feel that many of their students do not respect their *"private"* time. They also explained that this is often the case around the time of assignments and exams. Lecturer 9 explained:

"Some of my students have no idea about private/family time, and they expect me to be prompt in answering them".

Another lecturer (13) gave an example of this happening:

"On an eve of an exam, I was in an important family event, my students were panicking about the exam, and I they were texting me so much, I explained I am not responding as I am not in my working hours, but the texting turned into calls begging me to help them... it really made me uncomfortable. That's the side of SM that I don't like and cannot be tolerated".

Privacy is of a greater importance to all lecturers, but female lecturers think it is much more important to them due to their *"traditional family responsibilities"*. One female lecturer (16) explained:

"SM is a useful tool, most of my female students are well-behaved, but at times some students expect too much of me, they start chatting privately explaining their circumstances and the help they need, and although I sympathise with them, I feel they do not consider that I am a mother with responsibilities outside the university. I am a mother, I cook, clean do many of the chores on top of my work... I cannot explain that to them all the time, they need to use logic before communicating with me".

5.6.3.3 Bullying between students and exclusion

Lecturer-student communication is the essence of WhatsApp groups. However, lecturers do encourage discussion between students, although some of their students take it too far

according to the lecturers. This is highlighted by behaviour that is deemed as bullying according to lecturers and students too, which happens often. On bullying, Lecturer 3 explained:

"I encourage academic discussions online, but I am not there to govern it, and this makes every student able to give feedback and responses. Unfortunately, not all students are constructive, the comments given by some students are degrading of other peers."

A student in Group 4 referred to herself being "excluded from conversations". She explained that some of her peers didn't take her ideas seriously and were dismissive of her. She explained:

"I enjoy the WhatsApp group, but on some occasions. I feel I am not part of the group, and that I am the odd one out, my feedback or my questions don't get answered, and I feel there are some girls who feel the same".

Furthermore, a male student was more diplomatic about students' conduct, and explained that:

"We make jokes on WhatsApp, it is easy to see who was insulting online, and the Lecturer can take them out anytime, I think they learn much better this way, that such behaviour is not acceptable at a university level. We have to rise above this type of bullying, and it doesn't put me off, as I can defend myself".

5.6.3.4 No university e-safety protocols

Lecturers and leaders highlighted that there are no clear "national" or "university" e-safety and anti-harassment guidelines. Lecturers feel that they have to follow "logic and common sense" when using SM, and that there is no protocol to protect lecturers and students. Support for this came from a female student who explained:

"We share our mobile number, some girls don't like sharing their numbers, because they think it is not safe and that the university is not protecting them online. As we use SM out of our own will, we often improvise with our own rules, which are not always right or formal".

A leader explained (4):

"As a Leader, everything needs to be formal, SM is not formally adopted, and therefore we do not have the facilities to keep everyone safe online, or protect data, Lecturers' communication or even copy rights. I think as a country we are not ready for this".

5.6.4 Theme 4: Gender Mix [C4]

Gender was one of the main themes discussed as a challenge in the implementation of SMPs. Lecturers, leaders, and students referred to cultural views regarding gender mix, highlighting that potentially this is a barrier for the lecturer who might be “*sceptical in communicating with the opposite gender*” offline and online in education settings. Lecturers referred to their “*reputation*” and views of their colleagues and family. Leaders do not wish to upset social norms and university rules, while lecturers are mainly concerned about the negative reputational impact “*gender mix*” could have on them. For male lecturers, they don’t mind Twitter as a form of following up with female students, but not any of the personalised SMPs, such as Facebook or WhatsApp.

A male lecturer (7) explained:

“I teach girls at the university, generally they are shy than boys, I wouldn’t dare to initiate a WhatsApp group for them because that would upset the university rules, and parents. With girls, I often communicate in my office hours as groups. I was warned about private online communication from a university Leader”.

In the university setting, males and females only mix in specific circumstances, such as “*field work*”, for example, placements in hospitals and studying medicine. Even then, distance is often kept for cultural reasons. Male lecturers and females are not yet ready for the gender mix online. A female lecturer (17) indicated:

“I am open-minded in educational settings, males and females are here to learn, and I am with mixing genders to certain degree, but as a woman I wouldn’t want male students to have my personal mobile number, that wouldn’t be right, I don’t have any online communication with males, only girls”.

This was supported by a leader (2) who explained:

“As a conservative society we are coming to terms with mixed gender universities, I believe this will happen in the distant future with specific universities, the idea of creating an online platform where girls and boys can chat might be a little premature. I see communication via twitter between genders, but I do not think Leaders will sanction that on WhatsApp. It will reflect negatively on the reputation of the university”.

Interestingly, the views of the lecturers and leaders were not fully aligned with the views of male and female students who were more accepting of the gender-mix communication. In this digital age, they think it needs to be normalised, as long as students respect each other’. One girl explained:

“The idea of gender segregation is slightly dated, I don’t know why I can’t follow my male Lecturer online or communicate via Facebook, I am a respectable woman and I know how to behave accordingly. I follow few male Lecturers on twitter for educational purposes too, and I communicate with male students there too, it is a public forum, and everyone has been respectful to me. I think it is not the students it is the Lecturers who are scared about communication with the other gender”.

5.6.5 Theme 5: Lecturers’ Workload [C5]

Lecturers expressed “overload” in their teaching and feel overworked due to the use of SM in education. They find that potentially integrating SM in assessment and their general office time would make it difficult to adopt SM.

5.6.5.1 Integration of SM in assessment

A potential challenge in utilising SM relies on using it in assessment, Lecturers feel that the more formally utilised SM is, the more likely it will need to be involved in assessments, as explained in earlier themes. They feel that this could pose a challenge in that it creates “extra work” for the lecturer and lack of guidance on how to assess “students’ skills online”. Some have explained that lecturers should mark their students’ participation online and evaluate their engagement level. Others wanted SM-use to be assessed, but did not propose a method, saying that they acknowledge it is time-consuming. Lecturers already have problems governing their time online, using WhatsApp groups, and the invasion of their privacy. One lecturer (20) explained:

“Normally I assess students’ participation in the classroom, but they don’t participate much, online they are more engaged. As a result, I think I could assess that, but it will take me time, and it is hard to follow 100 students online. I am just creating extra work for myself”.

Another lecturer (6) reflected:

“Currently we are overworked, we teach many hours, and we still use SM, with good guidance we can integrate SM in assessment but not anytime soon, as I think many Lecturers will find that challenging”.

5.6.5.2 Time and availability

Lecturers referred to their office hours on many occasions, explaining that they have “office hours” for students to attend if they have specific questions about their module. But they acknowledge that SM helps them reach students who would normally not attend or book to see their lecturer. They also explained that time online is unaccounted for by the university, so they cannot guarantee online availability. In addition, on a number of occasions they explained that this is based on their “own will”, and they could stop SM

communication at any moment, but they see the benefits. Lecturer availability online is a challenge, as long as it is not paid for or formalised. One lecturer (8) explained:

“I have office hours, no one attends, but online I receive many questions, I still feel obliged to answer and that is time-consuming and not financially rewarding”.

Another lecturer (17) pointed to other responsibilities apart from students' engagement. She explained:

“Students are taking it for granted that I am available online, it is voluntary, and I am not available all the time for response, I have other admin and research tasks to perform”.

5.6.6 Theme 6: Validation of Information and English Resources [C6]

Communicating online and involving student's in-group discussions invite the use and exchange of many online resources, some of which are video-based (YouTube), and others are journal articles or web-based content. The accumulation of many resources on one platform creates challenges for some of the lecturers. They feel they can't advise students on what is a good resource and what is not. Although they encourage students to read from different resources, getting clear and consistent content is challenging, especially if the lecturer and students are not fluent in English. Lecturer 13 explained:

“Students might find a topic challenging, so they go and read about it, and at times they use videos in Arabic or English, I cannot verify their accuracy. English content is challenging for students and me”.

Another lecturer (14) explored the lack of Arabic-content in the field of science, for example, and explained that he can only use English resources, but that it takes time for students to understand them, so they search for Arabic resources to compensate. He explained:

“It is unfortunate that many useful online resources are in English, I think we could do our own Arabic videos and upload them to help students, and some of the available Arabic resources students use are not well executed.”

One student in Group 1 explained that he doubts some of the content exchanged between students, and that lecturers need to verify them constantly. A male student explained:

“Some of the information exchanged online is not accurate, someone uploading a video on YouTube doesn't mean that they are experts, and I can't guarantee the accuracy and I wish my Lecturers spend some time checking such videos.”

5.6.7 Theme 7: Complications in Using Blackboard [C7]

Students and lecturers have experience of using Blackboard as an educational platform. It is where lecturers include all information relative to their lectures and the modules they lead. Lecturers reflected on the use of Blackboard, but were not very confident in it, and what it brings in comparison to SMPs. Their use of SMPs is mainly for communication, and they feel that Blackboard does not facilitate that very well or conveniently. Lecturer 3 explained:

"I have used Blackboard for few years now, my students are not too familiar with it, and only use it to submit work or to download my lectures, not much else."

Another lecturer (13) explained:

"SMPs are easy, we all use them, students relate to them, but they do not relate to Blackboard, they find it hard to manage and has many technical issues, so they always ask me to send my lectures via WhatsApp".

Students did not mention Blackboard by name, but some of them referred to it as the "university website", which shows their lack of understanding of Blackboard as an educational platform. One student in Group 2 explained, "I find it hard to navigate the university website", and another student from the same group said that:

"Getting access to the online library, or the resources that the university offers requires a lot of work".

5.6.8 Theme 8: Poor Internet [C8]

Lecturers and leaders acknowledge that internet quality is another key challenge to having a better use for SM in university and outside. This was also confirmed by those students who complained about having to use "their own mobile phone data" to access some of the videos posted on group chats, and that this at times, restricts their participation in group discussions. The issue of internet at the university was supported by Lecturer 2 who explained:

"At the university, sometimes we have internet issues, it is hard to believe this in our society, but that is the truth, this has been an issue for a while, although I feel it is improving".

One student in Group 2 explained that:

"One of the months, I found myself with a huge mobile data bill, due to my frequent uploads and download of educational videos, sometimes I have to go to a coffee shop and use their Wi-Fi".

Students come from different areas, some of which are not well-connected to the internet. Leader 6 explained that many of the students live in rural areas where internet access is limited, and it is hard for students to enjoy learning through SM. She explained:

"I live in a rural area and some of my students do too, it is not easy to communicate... we get fed up with times and ignore the WhatsApp chat for weeks".

5.6.9 Theme 9: Lecturers' Voice Resistance [C9]

Lecturers, as explained earlier, feel that they need to be more in charge of SM, the curriculum, and their own time, so that they can be motivated to use SM. They feel that resistance from leaders to hearing their voices and ideas about SM could be a major obstacle. Lecturer 11 explained:

"SM is supported by us, the younger staff members, but decision makers are resistant, our input is limited, and I don't see how SM will be fully supported".

Another lecturer (17) voiced that the process of using SM would take time and effort from all decision-makers and lecturers, and that they should collaborate for the good of the students and should accept change. She explained:

"I am supportive of SM, but also I need to change the attitude of others who might resist, Leaders should hear us and should accept that SM is the way forward".

5.6.10 Theme 10: SMPs are Not Designed for Education [C10]

SMP sceptics, who are mainly leaders, hold the view that SMPs are not designed for education, and that it cannot replace their own university platform (Blackboard). Social media has been discussed mainly for the purpose of communication and information sharing between students and lecturers. Sceptical leaders and a couple of older lecturers pointed toward the fact that social media *"is not designed for education purposes"*. This is to point to SM limitations in education. Leader 3 explained:

"Students and Lecturers need to remember that SMPs are designed for a social purpose not for education."

He further explained why he does not like relying on SMPs, and views it as a distraction for lecturers and students. He also stressed:

"As a university we provide a lot of resources, classrooms, computers, digital libraries and the university digital platform (blackboard), this is what defines the university. SMPs are tools for communication only, and I feel that Lecturers shouldn't rely on them as it is a distraction from what students are

supposed to do which is to read books, do their own research and rely on their own independent learning.”

Another female lecturer (16) explained:

“I know SMPs are not designed for learning, and I use them for communication only, so I would say that the university does offer good online facilities and educational tools, we just need to use them better... SMPs are supportive tools that have no depth in an educational sense”.

5.6.11 Theme 11: BB is the Solution (Academic Leaders) [C11]

Although many of the lecturers expressed their opinions about SM and its usefulness, not many referred to Blackboard in their discussions. However, leaders did refer to it more often, especially when discussing the challenges associated with SM. Leaders believe that their Blackboard system is not fully utilised by lecturers or students. They feel that both parties are using the “*easy option of SM*”. They referred to the credibility and usefulness of this “*educational tool*”, and they believe that this is the way forward, and not SM.

A couple of leaders referred to Blackboard as a “*formal platform*”, and believe that it suits universities, as it records every communication between students and staff members. For this reason, they feel that this is the way forward. They also expressed that this is a tool proven to work in many universities across the world, and there is no reason for it to be any different in the context of Saudi Arabia. Leader 3 explained:

“Blackboard does everything that SM does, and it also offers privacy and protection to all Lecturers, so why not use it fully. It is compatible with all smartphones, and everyone has access to it, I feel that Lecturers and students like the easy or the convenient option of SM. Lecturers have regular training in using Blackboard too”.

Another leader (2) pointed to the attitudes lecturers and students have toward Blackboard, echoing some of the opinions stated in the previous quote. Also, the leader points to the IT support received when using Blackboard, something that lecturers don't receive when using SM platforms. She explained:

“Blackboard has many affordances, Lecturers don't even take time to consider it in full, training is available, and help is also available for students. The university invested a lot in that, so I think it is a matter of attitude and poor adoption of blackboard. You can upload videos there, you can engage in discussions and even have video recordings of yourself, and it is regularly maintained by IT staff, so why not use it instead”.

5.7 Chapter Summary

This section provides a summary of the key themes from the view of the stakeholders in use of SMPs in Education. Table 1, introduced earlier in the chapter, provides a breakdown of the main themes and sub-themes. To summarise, this thesis focused on exploring the perceptions of lecturers, leaders, and students in higher education (universities) on the utilisation of online social media platforms in the teaching and learning process in Saudi Arabia. In doing so, all interviews and focus groups yielded 11 important themes that reflect the benefits of using social media, the motivation and encouragement to use SM for students and for lecturers, and challenges and recommendations when applying SM.

When asked about the general use of SM, it was evident that all participants are familiar with different platforms, and it was clear that WhatsApp and YouTube are the most used in general and in teaching/learning contexts. SMPs seem like normal and acceptable to most, especially for students who are more aware and skilled in using them. SMPs were described as modern methods that facilitate the enhancement of knowledge and communication between students, and between lectures and students. Important benefits, such as improving interpersonal skills and removing gender sensitives, were also discussed. From those ideas or themes, it emerged that SMPs improve inclusivity and participation in the learning process, but it should be noted that “gender” was referred to in multiple occasions as a barrier in a “conservative” society like Saudi Arabia.

Different motivations were mentioned in relation to using SMPs. Students explained that they use SMPs such as YouTube to validate knowledge, and to generate different perspectives and understanding aided by the lecturers' availability on WhatsApp. They have also referred to “boundaries” as important when using SMPs. It is important that rules of online engagement are established to make sure it is a safe space. The inclusion of SMPs in the curriculum would also motivate students to adopt them. For lecturers and leaders, they wanted to see more evidence for the usefulness of SMPs in teaching and learning. They believe that attitudes will change as a result, given that training is available to those who need it. Lecturers also wanted more control in using SMPs in their curriculum. Furthermore, they see value in including SMP engagement as part of assessment to motivate students.

Despite the motivations and the overall positive attitude towards SMPs, there are several challenges. For instance, leaders and administrators' poor awareness is a challenge to lecturers, as is age. Leaders are often older individuals and age seems like a barrier to the

adoption of SMPs and change in general. The gap in using SMPs between older and younger staff members was apparent in the data. Another key challenge is ethics and rules. Universities do not have safety measures or guidance around privacy and online conduct. To some, gender mixing is also a challenge considering, especially when using WhatsApp, as some females would not want to share their personal mobile numbers. Furthermore, lecturers' workload in terms of lectures and office hours does not help for positive uses of SMPs. Some participants have also identified that SMPs are not designed for education, and that the use of the "Blackboard" platform is a better way of communicating with and teaching students, as it is designed specifically for that purpose. The next chapter takes the aforementioned themes and discusses them in relation to research questions and previous literature. It also elaborates on challenges and limitations faced in the process of data collection and the analysis process.

CHAPTER 6: Discussion

6.1 Introduction

This chapter discusses the findings presented in the previous chapter in this study on the perceptions of lecturers, academic leaders, and students on the potential impact of utilising social media in Saudi higher education. It is organised around the main themes from the findings to make it easier to follow through from the findings to the discussion of each of them and their subthemes. These main themes are general use of social media in education under the heading of social media technologies and platforms, its benefits, student motivation and engagement in using social media, lecturer motivation and engagement in using it, and key challenges involved in applying social media in education. Under each of these main themes, a summary of the responses is presented first to help identify the key findings, which are then compared and contrasted with those of other similar studies. A discussion then follows on the corroborations and new findings before the ending summary. This structure was guided by the recommendations by Bottery and Wright (2019) on how to structure a discussion chapter.

The three groups of stakeholders examined in this study affect or influence each other, and some of them commented on the same points. This made it possible to compare and contrast the perspectives and experiences on these points. To provide this insight, some key responses have therefore been compared and discussed. Notably, all the leaders are “*old lecturers*”, which suggests that age could be a key factor in explaining some of the differences. Some lecturers and students themselves mentioned this factor, and the summary at the end highlights this aspect. A synthesised summary is given at the end of the chapter including highlights of the key findings to show the shared and differing perceptions, corroborations, and contradictions, and all the new findings original to the present study. This synthesis emerges from the analysis and discussion that lead to it.

6.2 Social Media Technologies and Platforms

6.2.1 Summary of responses

General use of SMPs: The findings confirmed the use of social media technologies for both personal and educational use. They are considered essential for the current digital age. For personal use, this is especially due to their role in supporting social communications and connections, and for maintaining personal friendships (Lecturer 12). Additionally, SMPs are used personally for watching videos for leisure, and as one student

said, for getting “*a break from education*”, and it is also found useful for seeking news and information. As Lecturer 11 explained, most news related information he gets is acquired through using SMPs. For personal use, the most-used SMP is WhatsApp. One Leader (5) uses it “*all the time*”, but as one student said, “*Each SMP offers something different, [so] it depends on what you want from [the] SMP*”. In his view, WhatsApp along with Twitter are considered as “more formal” SMPs.

Educational use of SMPs: On the educational use of SMPs, which is the focus of the present study, a key finding was that SMPs are used in some form or other by almost two-thirds of lecturers and academic leaders, and among students, *all* of them have experienced using SMPs to facilitate their own learning. The reasons for their use in education are similar to why they are used for personal reasons: for supporting communication, and for sharing videos, in this case educational videos.

SMPs are used as a means for communication between all three groups (lecturers, academic leaders, and students), but the nature of this communication is centralised around “*lecture times*”, “*useful learning resources*”, and for asking questions and generally keeping in touch. Irrespectively, this communicative function, as one student put it, is a “*default*” or normal feature of social media. Beyond this basic role, SMPs provides invaluable platforms for educational use. Lecturer 11 remarked that “*teaching... is not easy, sometimes the classroom lecture is not enough*”, so video sharing on SMPs satisfies this need. This one lecturer established his own YouTube channel because he “*enjoy[s] spreading knowledge*”. His videos “*are based on the delivered curriculum*”, and he specifically pointed out that “*other students across the country [also] make use of them*” besides his own. Some students are also active in sharing educational videos with other students. One student described it as their love for teaching, and said they enjoy streaming technologies videos, developing skills, and sharing videos with peers “*so they understand the material from a different perspective*”.

6.2.2 Comparison and contrasts

On the general use of SMPs, the three groups of participants do not differ from one another. For instance, a student and lecturer both mentioned they use SMPs for getting news and information. On the educational use of SMPs, two practices in common between the same two groups are sharing files and making educational videos. The motivation for doing so is also the same. One lecturer created a YouTube channel because he enjoys spreading knowledge while a student does the same out of love for teaching.

6.2.3 Corroboration and new findings

On the theme of SM for personal use (G1), six key findings emerged from the data collected in this study (see Table 6.1 below). The first five of them are well-supported in the literature examined already. The sixth finding is original to this study.

Table 6.1: Key findings for the theme of Personal Use (G1)

Sub-Theme	Finding (Code/Detail)	Studies/Precedent
Main*	1 SMPs are used for both personal and educational use.	Lenartz, 2013
	2 The most-used SMP is WhatsApp.	Aydin, 2012; Aifan, 2015; Albalaw, 2017; Al-Qaysi et al., 2019
Communication**	3 SMPs are used to support social communications, connections, and maintain friendships.	Kaplan & Haenlin, 2010
News and information**	4 SMPs are useful for seeking news and information.	Unis et al., 2014; Yousef et al., 2016
Watching videos**	5 SMPs are used for watching videos for leisure as a break from education.	Alwagait et al., 2015
Main or formal SMPs**	6 WhatsApp and Twitter are more formal SMPs.	New finding

* Theme constituting the main theme of (Students' Positive Skills).

**Sub-themes relating to the main theme of (Students' Positive Skills).

The original finding is that WhatsApp and Twitter are considered to be “*more formal*” SMPs compared to others, and WhatsApp is used mostly, which was also found to be the case by Aydin (2012) in Turkey, and by Aifan (2015), Albalaw (2017) and Agarwal and Alrowaili (2020) in Saudi Arabia, especially among females (Li, 2017). They are perceived as formal by students mainly due to their popularity and usefulness as learning platforms, but lecturers link formality more with having official support by their institution. A student who shared this view qualified it with “*perhaps*” and did so on the basis that different SMPs offer “*something different*”. This view contrasts with that of leaders who only consider Blackboard as a “*formal platform*” (see Table 6.27 under 6.6.3) and diminish the usefulness of SM in education. The confirmed findings all relate to why SMPs are used, and which one is used most. Common uses confirmed in both the present study and by others are for personal and educational use (Lenartz, 2013), for social communications, connections and maintaining friendships (Kaplan & Haenlin, 2010), for seeking news and information (Unis et al., 2014; Yousef et al., 2016), and for watching videos for leisure as a break from education (Alwagait et al., 2015).

On the theme of SMPs for educational use (G2), nine key findings emerged from the data collected in this study (see Table 6.2 below) of which five are new findings.

Table 6.2: Key findings for the theme of Educational Use (G2)

Sub-Theme	Finding (Code/Detail)	Studies/Precedent
Main*	1 SMPs are used in some form by nearly 2/3 lecturers and academic leaders.	New finding
	2 All students have experienced using SMPs to facilitate learning.	New finding
	3 SMPs are used to support communication and share videos.	Kaya, 2010; Ryberg et al., 2010; Hossain & Aydin, 2011; Wang et al., 2012
Communication**	4 SMP-based communication in education centres around lecture times, learning resources, asking questions and keeping in touch.	Kaya, 2010
	5 The communicative function of SMPs is their normal feature.	Alamri, 2019
Sharing videos**	6 Video sharing satisfies the need for more information and knowledge gaining when classroom lectures are not enough.	New finding
	7 One lecturer started a YouTube channel because he enjoys spreading knowledge. This finding actually is in line with the finding of Aifan's study of 2015 conducted in Saudi Context.	Aifan, 2015
	8 Students from across the country see these educational videos.	New finding
	9 One student streams educational videos for students to understand the material from a different perspective. This means that this finding of streaming and restreaming videos for educational purposes in Saudi is a new strategy followed by students to gain knowledge and for revision.	New finding

* Theme constituting the main theme of (Students' Positive Skills).

**Sub-themes relating to the main theme of (Students' Positive Skills).

The new finding that SMPs are used in some or other form in education by almost two-thirds of lecturers and also academic leaders may be seen as surprising given the views expressed elsewhere, especially by older lecturers and leaders, that view SM negatively or insignificantly. It could also be a sign of changing times. For example, in a study on the use of social media in teaching by lecturers in HE institutions in South-East Nigeria by Okereke (2014), social media was found to be only used for social life whereas lecturers were not interested in using them to support their teaching. This was the situation

approximately seven years ago. SM has only become more acceptable in education in recent years in line with their growing popularity (Kircaburun et al., 2020; Whelan et al., 2020; see also finding **5.3.1** and **5.5.2**). This finding is supported by the second new finding of all students in this study by now having experienced using SMPs to facilitate their learning. The finding that SMPs are used to support communication and share videos is well-supported in the literature (Kaya, 2010; Ryberg et al., 2010; Hossain & Aydin, 2011; Wang et al., 2012; Faizi et al., 2013; Hennessy et al., 2016; Cilliers & Murire, 2017), which also confirms the widespread prevalence of social media in education.

The focus of these SM based communications is to communicate about lecture timings, learning resources, asking questions, and for keeping touch, which were also mentioned by Kaya (2010). This communicative function of SMPs is their normal feature (Alamri, 2019). The present study was able to shed more light on the sharing of videos with three new findings on this theme. The first is that these video contributions have gained complementary roles as an additional source of information when lectures alone are inadequate. Secondly, these educational videos are accessible widely throughout the Saudi Kingdom. Finally, it is visible that some students contribute to the dissemination of these educational videos through streaming and restreaming them in Saudi Arabia (G2-9). In this regard, a student X claims that "...". Furthermore, making a wide variety of videos and other resources available helps to learn from different perspectives. This is particularly important for solving social problems and developing competences necessary in a globalised world (Reinmann-Rothmeier, 2003).

6.3 Key Benefits of SMPs for Educational Use

The data highlighted that the key benefits of SMPs in education revolve around their "*modernity*", their contribution in knowledge enhancement, their role in developing communication skills, as well as interpersonal skills, and due to their alleviation of gender sensitivities.

6.3.1 Summary of responses

Modern methods: Their modernity is due to their currency and becoming accepted as 'normal' in the "*digital age*", so much so that lecturers and students "*expected [the SMPs] to be used*". One lecturer (9) admitted that although he "*found it hard at the beginning*", as he is a "*little older*", he has learnt "*to be open and modern, and utilise whatever tools that help... achieve their learning goals*". Similarly, one student stressed that SMPs "*are modern, and... accepted by our generation*". She finds them to be "*very useful*", as they

allow her, and presumably other female students like her, a “*certain freedom and autonomy in... educational methods*”.

Enhancing knowledge: Importantly, the findings show that SMPs can enhance knowledge in view of many of the participants in this study. It was commonly pointed out in the responses that SMPs can facilitate education by increasing knowledge, and participants acknowledged the crucial role of the lecturer in providing sources of information to students, helping them relate to the curriculum, and directing their students to articles and videos, or involving them in educational discussions. For instance, Lecturer 18 complements his lectures and materials, which “*many times... students do not understand*” or because they “*are challenging and perhaps they are distracted and... confused*”, with “*useful YouTube videos on the WhatsApp group*”. In the lecturer’s experience, this proves useful and “*helpful in making them comprehend the topic*”.

This helpfulness of SMPs is acknowledged by the students as well. One student admitted that information given to them by lecturers can sometimes be “*difficult to understand*”, and this prompts them to find their own materials and share them with other students. Another said they were particularly helpful during exam and revision time when they often have a lot of questions to ask. In these situations, they find SMPs “*very helpful*”, for instance, in getting “*easy to read*” information which saves them from going to and finding books from the library.

Multi-sources of information: As sources of information, SMPs allow for different perspectives and wider sources than “*traditional library resources*”. Some lecturers thus encourage their students to “*watch videos*” and read online articles to consolidate learning, as those students who are “*more visual*” learn better through videos and reading resources online than by reading information (in print). One lecturer explained that “*videos are convenient*”, as “*they could watch them anytime*” and discuss them afterwards. A student also acknowledged that “*great resources*” can be found online to add to those given by their lecturer, and that some students even translate educational websites and videos, which is valuable given that others “*rely on the different resources and information sent through SM*”.

Developing academic discussions: One lecturer finds lecture theatres “*awkward*” due to lack of questioning and discussions, which are allowed through SMPs such as WhatsApp, and which are considered important for learning and enhancing knowledge. It is the experience of several lecturers that students are passive during their lectures, but “*proactive when using WhatsApp*”. This prompts some lecturers to even post

controversial questions. Consequently, students gain in their understanding of topics, especially “*difficult*” ones and in the case of “*boring lectures*”. The impact can be considerable. One student admitted they “*learn more from WhatsApp and YouTube than... from books*” and lectures, and another acknowledged that lectures can be “*boring*” compared to discussing with friends on SM.

Improving English language skills: On acquiring English language skills, both lecturers and students felt SMPs help improve them, particularly to enhance vocabulary and understanding scientific jargon. One lecturer feels positive that his students watching videos in English and translating materials for themselves and others.

Students take the initiative: Such initiatives by students makes them proactive, which some lecturers find encouraging. One lecturer encourages his students to not rely exclusively on his own materials, but to “*become more independent in their learning*”. Students also feel they are more in charge behind a screen where they can encourage discussions.

Enhancing relationships: Besides encouraging students to make comments, SM also helps develop “*authentic relationship[s]*” by enabling students to see their lecturers as they are, which one female student described as “*much nicer online and... friendlier*”. Another male student said his lecturer “*treats me and all of our group as adults... and I think most of us love that... it makes us feel important...*”.

Removing administrative barriers: Office hours and busy schedules are administrative barriers that hinder chances to communicate for both students and lecturers, whereas SM enhances communication in What’sApp groups. It absolves the need to visit an office, book time and email their lecturer, and when the lecturer is online, students feel they can communicate better. One student reported she also gained in confidence.

Student-student discussion and engagement: Group discussion via WhatsApp is common. Students find some or other topic to discuss, usually after a lecture or to revise before an exam, the latter because some understand a topic better than others so students can help each other. Lecturers confirm that students respect and learn from each other.

Shyness and confidence: Lecturers claim some students are shy, reserved and confused in the classroom, and this results in one-sided teaching and poor classroom management. However, the poor interpersonal skills are much improved online. For instance, they ask questions by themselves, and find answering questions a lot easier because “*no one is*

going to judge them". Moreover, this has "*a ripple effect*" on the F2F sessions as well. Students find this a chance for them to be active and be heard.

Inclusive environment: Leaders and lecturers stressed on providing students "*an inclusive experience*" to make them not feel isolated but part of the university and try to offer students in the digital age "*every chance to learn by giving them the best tools*". Having an online presence helps students to be part of the course, when as one student admitted, they do not get a chance to communicate or collaborate because the lecturer "*leaves immediately*". Social media helps them feel comfortable and part of a group.

Gender sensitivities: SMPs allow for male and female students to communicate for learning, and many female lecturers and students have benefited from the openness and acceptance. SMPs thus compensate for the culture of gender segregation. However, some girls resisted giving their mobile number in a WhatsApp group, so one lecturer had to explain the importance while also offering them to opt out. Female lecturers are now "*more equipped*" to talk behind screens whereas formal F2F meetings are "*very intimidating*" for them. Female students also avail the opportunity to communicate with male lecturers and find them "*very helpful in guiding*" them.

6.3.2 Comparison and contrasts

The modernity of SMPs and their potential in helping to comprehend the topic or lecture are accepted by both students and lecturers. Similarly, both view SMPs as allowing for additional supportive resources and different perspectives and are encouraged by the opportunities for questioning and discussions allowed on SMPs, and also extra opportunity to improve in English. Lecturers also encourage their students to be proactive and take charge of their own learning this way as adults. Both gain in additional ways as well. For instance, students benefit from gains in confidence, not being judged, and feeling included and comfortable, while lecturers gain from reaching their students irrespective of their fixed office hours. In particular, for students, their interpersonal skills are improved, and female students especially benefit from the greater openness and acceptance, an arrangement which male lecturers find very helpful as well for guiding them.

6.3.3 Corroboration and new findings

On the theme of modern methods (B1), three key findings emerged from the data collected in this study, two of which are corroborated by previous studies, and one is a

finding that contradicts other findings in this study. These are presented in Table 6.3 below.

Table 6.3: Key findings for the theme of Modern Methods (B1)

Sub-Theme	Finding (Code/Detail)	Studies/Precedent
Main*	1 Modernity of SMPs is due to their currency and acceptance as normal in this digital age.	Al-Zaidi et al., 2014; Varghese & Pistole, 2014
	2 With age, lecturers become more open and utilise whatever tools to help in learning.	Contradictory finding (internally)
	3 SMPs allow students freedom and autonomy in educational methods.	Oradini & Saunders, 2008

* *Theme constituting the main theme of (Students' Positive Skills).*

The view that using SMPs is 'normal' in this digital age was shared by Al-Zaidi et al. (2014) and Varghese and Pistole (2014) among others as far back as around six years ago, and Oradini and Saunders (2008) acknowledged that SMPs grant students autonomy in learning. These two findings are confirmed in this present study. The second finding, however, is contradicted by other findings in this same study, which indicates there is internal inconsistency or differences in perceptions between the participants. Simply put, younger lecturers in Taibah University intend to introduce and use SMPs that facilitate the process of learning. However, older lecturers seem to avoid the utilisation of SMPs in teaching due to various reasons such as not knowing how to access or use them. In this way, older lecturers are the ones least likely to be convinced of using SM (see for example, 5.6.2.1, 5.6.10 and 6.2.3). Thus, a distinction can be made between lecturers based on age. This is compatible with the finding of Mardiana (2020), which concluded that older lecturers find it difficult to adapt to using technology in their teaching.

It may be noted that the contradictory finding (B1-2) was based on the experience of a single lecturer who has learnt to be more open and accepting of technology over time during his teaching career. Several studies conducted in the context of Saudi revealed that older teachers and lecturers are less inclined to accept technology-based tools and are more disposed to using traditional methods (ML2-1) (Alasfor, 2016; OECD, 2016; Zalah, 2018). This actually goes with the findings of Moran et al. (2011: 7) found in their mass survey of 1,920 higher education faculty use of social media in the United States. Thus, the previous explanation could be valid, which is that "older, more-experienced, faculty may be just as aware of social media sites, but they don't seem to see the same level of usefulness as do younger, less-experienced, faculty".

On the theme of enhancing knowledge (B2), 14 key findings emerged from the data collected in this study, which are presented in Table 6.4 below. Three of these findings appear to be new to this study (9, 11 and 14), and the rest are already established in previous studies.

Table 6.4: Key findings for the theme of Enhancing Knowledge (B2)

Sub-Theme	Finding (Code/Detail)	Studies/Precedent
Main*	1 SMPs can enhance knowledge.	Rosenberg, 2001; Harris, 2009
	2 The role of lecturers is crucial for information sources, relating to the curriculum, directing students to resources, and engaging them in discussions.	Zanjani et al., 2016
	3 Lecturers complement their lecturers with SMPs to help students comprehend the topic.	Evans, 2013
	4 Students sometimes find lectures difficult to understand, and SMPs very helpful.	Retelny et al., 2012
Multi-sources of information**	5 SMPs allow for different perspectives and wider sources.	Kim & Kim, 2017
	6 More visual students learn better through videos than by reading information.	Arndt & Woore, 2018; Carlisle, 2010
	7 Students find great resources online to add to the lecture.	Ruggieri, 2020
	8 Students find translated websites and videos valuable.	Carlisle, 2010
Developing academic discussions**	9 Lecturers find lecture theatres awkward due to lack of questioning and discussions (which SMPs allow).	New finding
	10 Lecturers find students are passive during lectures but proactive when using SMPs.	Forbes, 2017; Wahila et al., 2018
	11 Students learn more from SMPs than from books and lectures.	New finding
	12 Students find lectures boring compared to SMPs discussions.	Whelan et al., 2020
Improving English language skills**	13 SMPs help improve English language skills, particularly vocabulary and understanding jargon.	Sun et al., 2017; Bokor, 2018; Rachmawati & Cahyani, 2020; Thao & Dieu, 2020
	14 Lecturers think positively of their students watching educational videos in English and translating them.	New finding

* Theme constituting the main theme of (Students' Positive Skills).

**Sub-themes relating to the main theme of (Students' Positive Skills).

Whether social media tools can play a valuable role in the learning process is a critical consideration because if a positive link is confirmed empirically, it would justify their usefulness. Evans (2013) investigated whether social media can enhance learning (see **3.5.1.3**). Although no direct impact was found, the researcher did find improved engagement among students, and when lecturers complemented their lectures with SMPs, it helped the students to comprehend the topic. Similarly, Rosenberg (2001) and Harris et al. (2009) have shown the potential of SMPs to enhance knowledge, and Retelny et al. (2016) realised that students find it helpful when Twitter is used in an integrated way with their lectures and presentations.

However, this does not mean that non-social media resources can be dispensed with entirely, nor that students can be left to their own accord without the input of the lecturer. This study confirms the finding of lecturers' roles being crucial beyond merely making technology available to students. Zanjani et al. (2016) highlighted the same, as "the mere existence of tools does not guarantee users' adoption and acceptance" (p. 519) because students still need to be directed, guided, and engaged. Where SMPs tend to excel compared to lectures are in allowing for different perspectives and a wider range of information sources (Kim & Kim, 2017), and allowing for watching videos which especially benefits visual learners (Arndt & Woore, 2018). The present study confirms the same findings, and it confirms that students find translated websites helpful (Carlisle, 2010), and other online resources that enriches understanding of the lectures (Ruggieri, 2020).

On the theme of developing academic discussions, the finding that students tend to be more active during lectures compared to while they listen to lectures was also found by Forbes (2017) and Wahila et al. (2018). However, there are two findings under this theme for which no previous supporting study was found. The finding that students learn more from SMPs than from books and lectures cannot be substantiated based on one student's thoughts. As for finding lectures boring compared to SM, Whelan et al. (2020), on the other hand, noted the existence of a strong connection between boredom proneness and both information and communication overload, which are strongly associated with social media fatigue. Furthermore, SM usage was found to amplify the effects of information overload on social media fatigue, but, unexpectedly, attenuates the effects of communication overload.

This suggests that even if students find SMPs more engaging, the question whether they can learn more from books and lectures than SMPs is still uncertain. In fact, this issue is still debatable. For instance, Kay (2015) posed the question if SMPs are distracting tools created for entertainment. On the other hand, Khan et al. (2021) mention that since the start of Covid pandemic, SMPs have demonstrated their important roles in education as distance learning replaced face-face classes. Therefore, it is crucial that students have mentors or lecturers to guide them in learning acquisition. Otherwise, students go astray because the idea of engaging with SMPs can easily make students overwhelmed due to the volume of communication and information that they need to process during their learning practices. Thus, two different trends are apparent in this regard. Lecturers carefully select relevant content from books and give lectures with directly relevant information for their students, but social media is a vast store of information, much of which is not relevant even after students search for what they need. This shows the importance of lecturers' guidance in preselecting online content for students if knowledge is to be enhanced. Furthermore, there is that matter that even if lecturers spend time to carefully select from online sources what is relevant to their course, information overload will remain an issue for social media users. This is discussed further in section 6.4.1 under 'information selection' where it is noted, as per Finding MS2-1, that SMPs also make it easy for lecturers to select suitable sources. The second new finding for this theme looks at an issue that probably makes lectures less appealing due to the lack of questioning and discussions which SMPs allow. This means students do not find classes and lectures interesting and engaging as the educational system is traditional. From lecturers' perspective, the settings of classes do not prepare students to be active. Therefore, boredom prevails in classes and students become demotivated to learn.

On the other hand, students do benefit in other ways. For instance, Rachmawati and Cahyani (2020) found that non-English students improve in their English pronunciation skills from watching YouTube videos. This allays the concern expressed by Aydin (2012) that there is not enough empirical data to understand why social media tools such as YouTube are used. Similarly, non-English major students in Vietnam improved in their attitude towards the English language through using Facebook (Thao & Dieu, 2020). As may be expected, English language learners also improve in their English fluency, as found for instance, in a study on EFL learners in China (Sun et al., 2017). Social media gave them an opportunity to practice their skills in speaking in English. The present study was also conducted in a non-English speaking context, and the data confirms that using social media helps improve their English language skills, but particularly vocabulary and

to understand jargon. It could be for these reasons as well that one lecturer expressed pride in her students watching videos in English, which is a new finding. As Bokor (2018) suggested, this shows the internet can be harnessed to specifically improve teaching of English by providing opportunities for developing intercultural communicative competence.

On the theme of communication skills (B3), seven key findings emerged from the data collected in this study (see Table 6.5 below).

Table 6.5: Key findings for the theme of Communication Skills (B3)

Sub-Theme	Finding (Code/Detail)	Studies/Precedent
Students take the initiative**	1 The initiatives by students (e.g., translating videos into English) makes them proactive.	New finding
	2 Lecturers encourage students to be more independent and not rely exclusively on their materials.	Moore et al., 2011
	3 Students feel more in charge and able to engage in discussions behind a screen.	Jacobi, 2017
Enhancing relationships**	4 SM helps develop authentic relationships, and makes students feel important.	Contradicts Alshahrani et al., 2017
Removing administrative barriers**	5 SM enhances communication by overcoming barriers of limited office hours and busy schedules.	Faizi et al., 2013; Cilliers & Murire, 2017; see 3.5.1.2
	6 Students communicate better and gain in confidence from using SM.	Hennessy et al., 2016; see 3.5.1.3
Student discussion and engagement**	7 Students often discuss topics after a lecture or before an exam to better understand it and help each other.	Sutch & Klir, 2017

***Sub-themes relating to the main theme of (Students' Positive Skills).*

One study was found for the first finding in which students are encouraged to learn independently, but it was through using a language learning application (Aminatun & Oktaviani, 2019). Another study, by Moore et al. (2011) noted a transformation of lecturers' roles from providing information to facilitating and making students more independent in their learning, but the present study showed that lecturers actively encourage their students to be more independent.

A small-scale survey by Jacobi (2017) involving 27 students in the US found that students, especially those who are shy, feel more comfortable in voicing their opinions whilst they are online behind a computer because it gives them a sense of anonymity. Consequently, the students were able to participate in live discussions more effectively than they

otherwise would have in class. The present study confirms these, and the students also related they feel more engaged and in charge. The potential positive impact of using social media in the form of improved motivation and engagement was examined in **3.5.1.3**. Several studies support this idea. In the study by Hennessy et al. (2016:505) for instance, Twitter not only facilitated communication for students, but also “relieved anxieties and raised morale” thereby increasing motivation, engagement, and self-confidence.

The positive effect of social media on student-lecturer relationships, however, is contradicted by a study focused exclusively on how the use of online resources influences these relationships (Alshahrani et al., 2017). The results of their study showed that although students improve in self-confidence, self-reliance and connectedness with lecturers, the use of online resources increases “the gap in the student-lecturer expert relationship and referent relationship” (p. 87). A referent relationship is about holding a person in high regard. Importantly, the cultural differences in individualism and power distance mean that although more UK students seek information online than in Saudi Arabia, the harmful impact on the referent relationship is higher in Saudi Arabia. In other words, UK culture is more accommodating of the use of social media and online resources, but Saudi culture has not adapted to the same extent, so issues arise from these new ways of acquiring information and learning (Reddy, 2014; House of Commons Science and Technology Committee, 2019; Ansari & Khan, 2020). The present study has found some positive effects, but as the later section on key challenges shows (section **6.6**), there are cultural issues as well. This cultural challenge was highlighted in Chapter 2, and it was mentioned by other researchers, such as Alasfor (2016), Alzahrani (2017), Aldosemani et al. (2019), and Allmnakrah and Evers (2020). However, it was also pointed out that there are promising signs of change as well with SM becoming more accepted in Saudi HE (Al-Khalifa & Garcia, 2013; Alqahtani, 2019).

The beneficial impact on communication (theme five) is a welcome sign in this study because it was noted in the literature review (in **3.5.1.2**) that some Saudi university students suffer from lack of effective communication and interaction (Turjoman, 2016; Asif, 2017). Lecturers in South Africa, for example, realised that social media can improve communication and interaction, so they are becoming increasingly receptive to adopting social media (Cilliers & Murire, 2017). The present study corroborates, for example, the findings of Faizi et al. (2013) that web-based applications and social media can improve communication between teachers and students and among students, as well as their engagement and collaboration. The increased discussions on social media around

exam time found in this study is also confirmed by Sutch and Klir (2017), who examined 6.4 million Twitter tweets during an exam session in 2016. As may be expected, discussions on revision were much higher before exam dates.

On the theme of interpersonal skills and personalities (B4), five key findings emerged from the data collected in this study (see Table 6.6 below).

Table 6.6: Key findings for the theme of Interpersonal Skills and Personalities (B4)

Sub-Theme	Finding (Code/Detail)	Studies/Precedent
Shyness and confidence**	1 Lecturers note some students are shy, reserved and confused in class which affects teaching.	Al-Mansour & Al-Shorman, 2012
	2 Students' poor interpersonal skills are much improved online due to no judgement.	Jacobi, 2017; Ansari & Khan, 2020
	3 Online questioning and finding answers have a ripple effect on F2F sessions making students active.	Han et al., 2020
Inclusive environment**	4 Students need an inclusive experience and the best tools to make them feel part of the university.	New finding
	5 Online presence helps students be part of the course and feel comfortable as part of a group.	Alshammari et al., 2017

***Sub-themes relating to the main theme of (Students' Positive Skills).*

The shyness or reserved nature of Saudi students noted in this study has been noted previously (Al-Mansour & Al-Shorman, 2012), but according to lecturers, this affects their teaching. It is a problem particularly for those with social anxiety disorder (Carruthers et al., 2019). Fortunately, the impression from this study is that social media can play a role in enabling students to overcome their reservations to be more active and to alleviate these effects. As Han et al. (2020) showed, it is possible for utilising online learning data to obtain relevant information that could then be used to make F2F learning more effective. This does not mean all students cease to be shy online. Some students are still shy online for whom further strategies are necessary to motivate them to interact (Fang, 2008). Besides overcoming shyness, students also need an inclusive experience to make them feel part of the university (B4-4), and SMPs can help in this as well by providing more platforms, and thus more opportunities, to interact and connect with their lecturers and other students. As shown by Menkhoff et al. (2015), they have the potential to develop this required strong sense of belonging.

There is supporting evidence from other studies, however, that other related interpersonal skills can be improved through using social media, and this is made possible due to facing no judgement whilst online (Jacobi, 2017). For instance, students feel more comfortable and part of a group while using social media (B4-5). This was also found by Alshammari et al. (2017) for Saudi students learning a foreign language. As a result of their findings, the researchers recommended making more use of applications such as WhatsApp “to encourage autonomous and peer learning... and to develop learning communities” (p.68). At the same time, however, they also advised guidelines to be developed for students, which Buqawa (2015), Alnujaidi (2017) and others have stressed as well. This need was felt in the present study as well and is discussed further in **6.6.3**. Another important improvement correlated with the use of social media is self-confidence in communicating (Ansari & Khan, 2020).

Finally, the existing power distance in Taibah university makes students feel their experiences are not inclusive. The dominant teaching methods do not help them thrive or build their world in terms of learning new skills or gaining competences. Thus, traditional classes make students feel they are less productive, active, and not serious in the learning process or in class participation. This made them develop a sense that they do not belong to the university environment, leading to a negative increase in the levels of psychological and academic distress. Participants also expressed lecturers were more interested in the content of their own class, and desired that lecturers played more active roles in helping them to be aware of and take advantage of the resources available to them outside of the classroom or helping them to address their needs and the obstacles they face in their academic trajectory. Therefore, participants articulated new tools should be introduced to shorten that gap between lecturers and students. Engaging SMPs in the learning process gave participants the impression that the interaction between the lecturer and the students is positive as these tools make students more comfortable with their lecturers and put them altogether in a constant communicative setting, not to mention the fact the positive space they create for shy students to articulate their voice and be more active in classes. Moreover, such tools help students keep themselves updated with their lecturers and classmates, thus feeling part of the university environment.

On the theme of gender sensitivities for females (B5), five key findings emerged from the data collected in this study (see Table 6.7 below).

Table 6.7: Key findings for the theme of Gender Sensitivities (B5)

Sub-Theme	Finding (Code/Detail)	Studies/Precedent
Main*	1 SMPs allow all students to communicate for learning.	See Table 6.2
	2 Many female lecturers and students benefit from the openness and acceptance.	Kircaburun et al., 2020
	3 Some girls resist giving their mobile number in an online group, so need to be convinced. (Due to the Islamic norms).	New finding
	4 Female lecturers feel more equipped behind screens compared to intimidating F2F meetings.	New finding
	5 Female students find male lecturers very helpful online.	New finding

* *Theme constituting the main theme of (Students' Positive Skills).*

Except for the first finding on the role of SMPs in communication, which has already been discussed under Table 6.2 alongside the second one, the rest of the findings in this part are all new findings. On lecturers' point of view, these are that females especially benefit from the openness of social media and feeling more equipped behind a screen, and on students, that they also benefit from openness and find male lecturers very helpful online, but resist giving their mobile phone number online unless convinced. Being a conservative country and due to Islamic teaching, females do not share their numbers unless it is for educational reasons. Nevertheless, the overall impression is that female lecturers and students both benefit from using social media and are in favour of it. Female use of social media among students is more prevalent because they have more friends, are more active than males in maintaining online relationships, and more goal oriented (Kircaburun et al., 2020). This is corroborated by the present study which found female students, as well as lecturers, to be benefiting from the openness and acceptance provided by social media. Notably, Kircaburun et al.'s study (2020) was conducted among university students in Turkey, so the cultural context is not the same or similar to the present study, but it is not too dissimilar either, as it would have been if it was conducted in the context of western culture.

However, this contradicts the findings of Dar et al. (2017) where fewer female medical students expressed preference for using WhatsApp over traditional methods compared to males, but the proportion was still high at 63.8% for females relative to 77.7% for males out of 234 students. Williams and Adesope (2017) also found usage of social media between the genders to be insignificant. However, a study on a larger sample of 723 research students in five Malaysian universities found that females were not fully satisfied

with the usefulness of social media and its perceived ease of use (Al-Rahmi et al., 2018). The overall satisfaction was still high though, and their research led them to conclude that “active collaborative learning and engagement through social media enriches the learning activities of students and facilitates group discussions” (p.72). The situation among teachers appears to be the reverse with more female than male teachers in favour of using social media (Albalawi, 2017). The reason for this, as supported by this present study (see theme four), could be that female students have more privacy and safety concerns than female lecturers. This is discussed further on (see Table 6.10 and Table 6.19).

6.4 Using Social Media: Motivating and Encouraging Students

The data related to student motivation and encouragement covered their positive skills, how information is selected, multiple information sources, availability of lecturers, rules of engagement, finding safe spaces, administrator reliability, role or part of assessment, and reduction in lecture times.

6.4.1 Summary of responses

Positive skills of students: Lecturers who use SMPs say they are “*natural*” to students born in the “*digital age*”. This means they have the necessary skills and abilities to utilise and benefit from them, which is encouraging for lecturers, some of whom describe themselves as traditional and not so skilled in comparison. Students noted their lecturers are not on the same level as them, but are more engaged when using an SMP, and one said they helped their lecturer in using WhatsApp, for instance in “*creating links for videos and resources*”. One admitted they feel better when lecturers use SM, as “*everything is [made] available*”, so they “*don’t have to go and make an effort to find books or resources*”.

Information selection: SMPs allow for better communication, particularly in helping lecturers choose information sources, select the “*right information*”, which is a concern to avoid non-scientific and non-empirical information, and making resources available for the convenience of their students. This includes general information online and university-provided information and is sometimes in response to requests for an article or book they cannot access, or otherwise useful and interesting information resources. However, lecturers note some students are too “*lazy*” to get resources already available online through their university library, or they are not confident they have the right information. Lecturers also have to ensure their students read their materials.

Multi-sourced information: Reading from different sources allows lecturers and students to understand topics much better. For instance, certain YouTube videos complement lectures, and other online resources such as book chapters explain topics from a different perspective, which “*further their understanding*”. Students find this direction to “*different resources*” helpful and confirm that such shared articles and videos complement the lecture.

Lecturer availability: Office hours can be difficult for both students and lecturers, and SM compensates for that. However, lecturers find most students ask the same questions, so a WhatsApp group allows them to help the whole group together. Some of these questions are important, as they pertain to readings, marks, exams, and general advice, which would consume too many office hours without SM. Also, some students are “*too shy to ask questions*”, so being “*virtually*” available is helpful and “*reassures*” them.

Engagement rules: Lecturers are concerned about rules or a code of conduct for their students communicating online and feel they might enhance and facilitate a better learning environment while using an SMP. One lecturer said they would also feel more “*protected*”. One leader mentioned that a few rules were emailed to students before students used WhatsApp, and that they covered being respectful with each other and to respect the lecturer’s private time.

Safe space: Mostly female lecturers and students expressed safety concerns. A “*virtual safe zone*” would allow them to be more willing to exchange information and engage in discussions. One female lecturer mentioned that some of her students opted out of the WhatsApp group because they did not feel safe to share their number and did not trust some other students in the group. One female student who described herself as “*conservative and traditional*”, said she felt “*vulnerable*” and admitted it took her time “*to trust others*”.

Reliable administrator (lecturers): Lecturers use SMPs of their own will, but especially older ones feel ill-equipped at times, so they cannot take full advantage and would prefer an IT administrator to help them. One admitted they used Facebook for one month set up by their daughter but gave up as it was “*hard to maintain*”, and another admitted some copy others but are “*not very active*” and “*need help*”. One young lecturer assigned one of his students to administer his YouTube channel and WhatsApp group, and even facilitate discussion which makes “*life easy*” for him.

Part of assessment (lecturers): Some lecturers think SMPs should be incorporated formally in the curriculum and be used in assessment so that they could mark students based on involvement and collaboration. They acknowledge this would be complicated, but that it would motivate students and ensure their better use in education to help them gain “good marks... [and] be more creative”. However, some students “choose to be silent, and rarely or never engage in group chat”, so if they had to be assessed, they would “engage more often” but he prefers not to force them. On the other hand, one lecturer mentioned it would increase their work, so he would only give full support if his teaching/office hours are reduced.

Reduced lecture time: A few lecturers said they sometimes have to deliver long lecture hours and feel student concentration drops, which could also exhaust themselves as lecturers. So, they suggest reducing teaching time to provide online teaching, and that this would also encourage students. This can be achieved, for instance, by posting videos on the WhatsApp group instead of showing them during the lecture. The lecturer who suggested this said students themselves prefer for videos to be posted on the WhatsApp group so that they could leave early and view them in their own time. One female lecturer admitted “students learn better online these days”.

6.4.2 Comparison and contrasts

There is a marked difference in the abilities of lecturers and students generally in using SMPs, which points to the existence of a generation gap. This has long been recognised by others (Drange, 2014), and is also called a digital life gap (Horvath, 2016). This is a key contrast between students and lecturers showing throughout these findings which explains many of the differences in perceptions between the two. Generally, students are more in favour of using social media and more capable of using it whereas the opposite is the case for older lecturers who prefer traditional teaching methods, and this gap is generally reflected in many other institutions around the world as well. The present study showed some older lecturers even seek assistance from students.

This generation gap also explains the difference noted in this study on information selection where students use online sources more readily. Although this widens the sources and quantity of information, which makes them helpful and complementary for students, it makes lecturers concerned over the quality of information and why students no longer use physical sources as much (textbooks, university-provided information, and libraries). They are also concerned over the lack of engagement rules for using social media, particularly female lecturers, but these safety concerns are shared by students as

well. Another point of discordance found in this study is on assessing social media usage and incorporating this form of learning into the curriculum. Lecturers are generally in favour of this, but some students have reservations because there are some who do not engage so much in chat.

6.4.3 Corroboration and new findings

On the theme of students' positive skills (MS1), five key findings emerged from the data collected in this study (see Table 6.8 below), of which the last three are new findings.

Table 6.8: Key findings for the theme of Students' Positive Skills (MS1)

Sub-Theme	Finding (Code/Detail)	Studies/Precedent
Main*	1 SMP-using lecturers find they are natural to digital age students.	Al-Zaidi et al., 2014; Varghese & Pistole, 2014
**	2 Some lecturers consider themselves traditional and not as skilled as students.	Drange, 2014; Cilliers, 2017
**	3 Students find lecturers more engaged on SMPs.	New finding
**	4 Some students help their lecturers in creating online links.	New finding
**	5 Students feel better when lecturers use SMPs.	New finding

* *Theme constituting the main theme of (Students' Positive Skills).*

** *Sub-themes relating to the main theme of (Students' Positive Skills).*

The generation gap in the use of SMPs is evident in the data of this present study between students and lecturers as mentioned earlier. This explains why students generally tend to be more skilled than especially older lecturers in using social media and technology in general (theme 2) and are more engaged and enthusiastic when lecturers also use the same tools (theme 5), and the reason why some lecturers let students help them (theme 4). Cilliers (2017) described this as the challenge of Generation X lecturers teaching Generation Z learners, whom Drange (2014) calls 'millennials'. The present study supports their findings that the new generation of students "are more equipped with technology... which increase[s the] complexity of education processes involving instruction, guidance, and supervision" (p.188) compared to traditional methods of teaching which many older lecturers prefer.

The new finding (theme 3) that lecturers are perceived to be more engaged when using SMPs appears to apply to some younger lecturers, as the overall impression of the data in this present study does not suggest it would be true for older ones since they are more reluctant to use them (see ML2-1). When it is used or allowed though, students feel better or more motivated and engaged themselves (theme 5). The second new finding (theme 4)

that students help their lectures in creating online links is in consonance with and verifies other related findings in the present study, such as lecturers encouraging students to create online learning materials (ML5-4), and students translating educational videos in English (B2-14). These initiatives are bringing students and lecturers closer together in a process of co-creation and co-learning and are thereby promoting a more balanced relationship on more equal terms. Importantly, they are bringing about a cultural change in Saudi HE by reducing the power distance traditionally maintained between teachers and students, mentioned in section 2.3.

On the theme of knowledge validation (MS2), seven key findings emerged from the data collected in this study (see Table 6.9 below).

Table 6.9: Key findings for the theme of Knowledge Validation (MS2)

Sub-Theme		Finding (Code/Detail)	Studies/Precedent
Information selection**	1	SMPs allow for better communication that helps lecturers choose appropriate information sources (including non-empirical and university-provided).	Kaplan & Henlin, 2010; Kaya, 2010; Ryberg et al., 2010; Hossain & Aydin, 2011; Wang et al., 2012; Unis et al., 2014; Yousef et al, 2016; Hennessy et al., 2016.
	2	Some students are too lazy to get resources available through the university library.	Thompson, 2003
Multi-sourced information**	3	Reading from different sources allows lecturers and students to better understand topics. (Under the traditional methods of learning in KSA reading outside the curriculum is unfamiliar.)	New finding
	4	Different resources are helpful and complementary for students to depend on themselves to enrich their knowledge outside the walls of classrooms and away from traditional learning methods in KSA.	New finding
Lecturer availability**	5	SM compensates for limited office hours.	Smith et al., 2014
	6	SMPs allow to help the whole group together. Thus, learners become a community.	New finding
	7	Being available online is helpful for shy students and reassures them.	Fitzgerald et al., 2018

***Sub-themes relating to the main theme of (Knowledge Validation).*

The crucial role of lecturers in selecting right information sources was discussed earlier for B2-2. On the laziness of students in using the university library instead of online resources, only an old study was found (Thompson, 2003). It cannot therefore be confirmed if the issue persists, but it may generally be noticeable that present-day students prefer to use online resources because they are more easily available. This is corroborated internally, however, by the finding C2-8.

Accessing online and multiple sources in an information-rich environment to understand better (MS2-3) and are therefore helpful (MS2-4). These are two new findings. Again, this highlights a cultural aspect. This practice and benefit might not be unexpected in Western countries, but it is not so in the Saudi context and other Asian contexts where education has been traditionally delivered using set texts, and with little or no focus on developing and applying skills of critical evaluation and synthesis. Access to different resources could help to see the same topic from different perspectives, thereby making learning and understanding richer, and cover deficiencies in any one single source. However, it raises the need for evaluating their quality so that only reliable and quality sources are used. This is not something that can be left to students alone according to McGrew et al.'s (2018) research in which students were asked to learn from civic online reasoning assessments. Santos et al. (2018) also questioned the quality of information sources in a cross-sectional study on Portuguese university students.

The fifth theme of social media compensating for limited office hours of lecturers was also found by Smith et al. (2014). They found that professors have very limited office hours but reaching them is easier for students if they use email instead of visiting in person. Being available online is particularly helpful for shy students, as it reassures them (MS2-7; Fitzgerald et al., 2018).

On the theme of establishing boundaries (MS3), nine key findings emerged from the data collected in this study (see Table 6.10).

Table 6.10: Key findings for the theme of Establishing Boundaries (MS3)

Sub-Theme**	Finding (Code/Detail)	Studies/Precedent
Engagement rules**	1 Lecturers are concerned about existing rules or codes of conduct for students communicating online.	Mazana, 2018
	2 Engagement rules would make lecturers feel more protected.	New finding
Safe space**	3 Mostly female lecturers and students have safety concerns.	Knott & Wassif, 2018; Roopchund, 2019
	4 A safe zone would allow females to be more willing to exchange information and engage in discussions.	New finding
	5 Some students opt out of SMPs due to trust issues and to not share their number.	Warner-Soderholm et al., 2018
	6 Some conservative female students feel vulnerable online and take time to develop trust.	Warner-Soderholm et al., 2018; MS3-3; Knott & Wassif, 2018; Roopchund, 2019; C3-9; Mazana, 2018; Karusala et al., 2019.
Reliable administrator**	7 Older lecturers feel ill equipped at times so cannot take full advantage of SMPs and also need an IT administrator.	Alshabeb & Almaqrn, 2018
	8 Some lecturers find SMPs hard to maintain.	New finding
	9 Even younger lecturers assign students to manage their SM groups and facilitate discussion.	New finding

**Sub-themes relating to the main theme of (Establishing Boundries).

Lecturers at the researched institution are concerned with existing arrangements to control student communication online (MS3-1). The lack of rules makes it more likely that social media-based groups are misused (Mazana, 2018). It is mostly female lecturers who have safety concerns (MS3-2; Knott & Wassif, 2018; Roopchund, 2019). A safer zone would allow them to be more willing to exchange information and engage in discussions (MS3-4). However, it is not only female lecturers but also female students who have trust issues (MS3-4), and therefore feel vulnerable (MS3-5). Trust is relatively more common among younger users of social media (Warner-Soderholm et al., 2018), but the same study also found high trust to be high among women which is strange given that the present and other studies have shown women are most concerned with safety (MS3-3; Knott & Wassif, 2018; Roopchund, 2019), and privacy (C3-9; Mazana, 2018; Karusala et al., 2019) issues.

On the theme of social media part of communication (MS4), nine key findings emerged from the data collected in this study (see Table 6.11 below).

Table 6.11: Key findings for the theme of Social Media Part of Curriculum (MS4)

Sub-Theme**	Finding (Code/Detail)	Studies/Precedent
Part of assessment**	1 Lecturers prefer formal incorporation of SMPs in curricula and assessment.	Van Den Beemt et al., 2019
	2 Lecturers think marking students based on involvement and collaboration online would motivate them.	New finding
	3 Students who prefer to be silent and rarely engage in group chat would engage more if assessed.	New finding
	4 Lecturers would not want to force students to be more engaged if made to assess their online involvement.	New finding
	5 Assessing student involvement online would increase lecturers' workload, so they would only support it if office hours were reduced.	Al-Hunaiyyan et al., 2017
Reduce lecture time**	6 Student concentration drops during long lectures, which also exhausts lecturers.	Tuurosong & Amadu, 2014
	7 Lecturers want teaching time reduced to provide more online teaching.	Owston & York, 2018
	8 Students prefer videos posted on SM to them being shown during lectures to view in their own time.	See Howard et al., 2017
	9 Some lecturers think students learn better online these days.	Contradicts Gysbers et al., 2011

***Sub-themes relating to the main theme of (social media Part of Curriculum).*

Formal incorporation of social media in the curriculum would likely increase its use, but it would require several other things to make it effective. Van Den Beemt et al. (2019) considered this integration and identified several areas that would need to be addressed relating to the school, teachers, and students. For example, teachers would need to develop social media skills, engage more actively with content, be purposively present on social media, provide alternatives for reluctant students, promote formative feedback. Students would need to possess metacognitive skills for more focused use of social media, and aspects of privacy and security would also need to be dealt with, and the institution would need to provide technical support, increase transparency in communications, develop focused policies, and diminish other barriers faced by staff. In short, the point is that incorporating SMPs in the curriculum would have implications and further

requirements to make it succeed. Some of these are considered separately elsewhere in this discussion chapter.

Some other things also need to be considered if the use of social media is to be consolidated by incorporating it into the curriculum. One impact could be increased workload (MS4-5), which is a concern for lecturers in other institutions as well, such as lecturers in Kuwait (Al-Hunaiyyan et al., 2017). One solution for this is to reduce teaching time (MS4-7) so that more attention can be given to online teaching. Owston and York (2018) reached the same conclusion when they considered the importance of time spent in online activities. Their research led them to recommend replacing one-third of normal F2F teaching time as a minimum with online activities in which instructor-student and student-student interaction can be facilitated.

Many students themselves prefer watching educational videos posted on social media to them being shown during lectures. This is a finding of the present study, which corroborates the same finding by Howard et al. (2017) (see 3.5.2.5). On this topic of lectures in comparison with social media, it should also be noted that lectures alone are not a panacea for academic success. Extra support needs to be provided to ensure students understand and benefit from understanding those lectures, and this is where the videos can play a part. There is a limit to how much can be gained from lectures. The length of lectures is a crucial consideration, as student concentration drops if lectures become too long (MS4-6). This is confirmed by Tuurosang and Amadu (2014) although the students were using social media during their lectures. Another aspect to this is that if social media was able to replace lectures completely, then why are lectures still delivered? Gysbiers et al. (2011) considered this question to discover why students still bother coming to lectures when everything is now available online. Although their study was old and conducted in Australia, their study showed that many students still feel passionately about their lectures and recognise that they add value to their study. The present study suggests lecturers think students learn better online (MS4-9), which appears to contradict the above-mentioned study, but the study did not collect quantitative data to verify this by comparing the different modes of learning because the aim was only to gather perceptions.

To benefit more from social media-based learning, there needs to be some way of marking students' involvement and collaboration (MS4-2). Motivation is an important consideration in this context (Hartnett et al., 2014). Data in the present study suggests marking involvement and collaboration, but some students prefer to be silent (MS4-3), and some lecturers would not like to compel students to be engaged (MS4-4). Hartnett et

al. (2014) offer some alternative ways of motivating them, which their research suggests has a supportive effect on motivation. These include making learning activities relevant, providing clear guidelines, giving feedback and support, and fostering caring relationships. Although their study involved online learners, the suggestions could still be valid for learning through using SMPs.

6.5 Using Social Media: Motivating and Encouraging Lecturers

The data related to using social media to motivate and encourage lecturers covered the themes of research and evidence, lecturer awareness and attitude, tailored and accessible training, SM and the curriculum, time allocation, student assessment, lecturer assessment, and intrinsic and extrinsic rewards for lecturers.

6.5.1 Summary of responses

Research and evidence: Most lecturers and leaders have a PhD. They acknowledge *“smartphone[s] have become a major part of students' life”*, and many believe it positively influences student learning and engagement. However, they need hard evidence to support SM, especially to *“empirically highlight the advantages of SMPs among Saudi students”*, and admit some colleagues are sceptical, who think students' time is wasted and lecturers have become lazy. One leader who supports technology *“as long as it works”* considers emails sufficient for communication alone.

Lecturer awareness and attitude: younger lecturers are generally supportive of SM and have their own presence on various SMPs. They feel older lecturers have yet *“to accept”* it as a tool to facilitate learning, and even some younger lecturers are not taking full advantage, which requires changes in awareness and attitudes. One older lecturer who will retire in a few years finds SM *“too complicated”*, so he chooses not *“to get involved”*, and one female lecturer raised concerns *“about privacy issues”* but feels more can be encouraged to use SMPs if they are informed of their benefits. A leader advocates for more integration of SM to utilise SM more fully, and to deal with issues, such as avoiding seeing students and their complaints, which he says is a *“wrong idea about SM”*.

Tailored and accessible training: Most lecturers emphasised the need for developing practical skills by arranging workshops and training to support SMPs. One lecturer said *“training is essential”* for such things as forming groups and making short videos. One female lecturer admitted she does not *“have too much time to even learn about simple SMPs”* and suggested for the training to cover issues related to age, culture and gender attitudes. Leaders claimed there is training, and they are trying to professionally educate

more staff and introduce new ideas, but none on how to use SMPs, and “*some lecturers attend, others choose not to*”.

SM and the curriculum: Lecturers feel they are “*not being heard*” about involving SM in the curriculum which does not presently mention anything about it, such as on sharing Twitter and WhatsApp accounts. Younger lecturers feel the curriculum needs to be updated, but older lecturers do not like change, and although the use of ICT is encouraged by leaders, “*they are not supportive of... SMPs*” due to the challenges and “*fear [of] change*” despite the possibility that “it could ease the pressure” on lecturers.

Time allocation: Most lecturers believe they do not have a voice in deciding working hours, including time to allocate for SM outside the lecture, and they end up working more hours than expected, so they feel more need for control. One lecturer highlighted the “*time-consuming*” issue of SMPs and that they are not paid for it. Lecturers want leaders to allow them to explain the usefulness of their time online, as it would give them some control to “*limit lecture time and integrate online time*”. Another female lecturer suggested transforming seminars to online using an SMP to “*facilitate better discussion*”, and a leader admitted “*time online is challenging, [as] we cannot be sure about students' attendance and lecturer's engagement*”, which makes accountability harder.

Lecturer assessment: Lecturers are often evaluated at the end of each year. A few lecturers and leaders acknowledged that although using SMPs in assessment would encourage their use, it would be difficult due to lack of awareness of their usefulness. One lecturer said, “*Leaders only ask about what is expected... in the curriculum*”, and they ignore his efforts and time spent “*online helping students*”. One leader also advised to include “*online engagement with students as part of lecturers' assessment*” but said this would also need to be added to lecturers' job specification.

Student assessment: If SMPs are included in the curriculum for assessment purposes, it would make lecturers use them. One lecturer admitted, they are “*under no pressure to use SMPs*”, but “*would surely adopt them fully*” if they were part of the curriculum and assessment. Another lecturer said she would mark students' participation and engagement if “this would motivate students to learn and engage online”, but not for testing knowledge, and another expressed willingness to encourage students by letting them create learning material on YouTube.

Intrinsic and extrinsic rewards for lecturers: Lecturers are often busy and find teaching stressful, but despite attempts to use SM, they are not encouraged “*from above*”; not even

appreciated or thanked by leaders which affects their confidence. They mentioned intrinsic and extrinsic rewards would encourage and motivate them to adopt SMPs in their teaching and spend more time online. Lecturers have to work “*outside office hours*” to use SMPs. They are “*not paid*” for this, but “*still do it*” due to its benefits. One lecturer recalled helping students during exam preparation time through SM which impacted on his personal and family life, but leaders considered this a waste of time instead of supporting him which “*would mean a lot*”. Another lecturer who discussed this issue with her leader “*was dismissive and off-putting*” and had “*no idea*” about what she was saying. A different leader acknowledged he was aware of efforts by lecturers in using SMPs but said they are under pressure to “*evaluate their efforts based on the curriculum*”, and SMPs are not part of the university policy, which is why they cannot support or appreciate it. A lecturer suggested the university should adopt a reward scheme to reward lecturers for innovative teaching practices and dedication, and that “*financial rewards will make all staff... especially older one[s] adopt SMPs*”.

6.5.2 Comparison and contrasts

The theme of research and evidence highlights a contrast between lecturers and leaders on one hand and students on the other. Though not all, many elders view social media negatively or as unnecessary, which is not shared by students. However, there is also a difference among lecturers with younger ones being generally supportive of SM, and more willing to use it further if it is incorporated into the curriculum or assessment, and older ones less likely to accept it and not liking change. It is the same case gender-wise as well with female lecturers having more privacy, safety and security concerns than males. What lecturers do agree on are need for training to use SMPs, but this is the responsibility of academic leaders. If the leaders also implement a reward scheme, this too could encourage greater use of SMPs.

6.5.3 Corroboration and new findings

On the theme of research and evidence (ML1), three key findings emerged from the data collected in this study (see Table 6.12 below).

Table 6.12: Key findings for the theme of Research and Evidence (ML1)

Main Theme*	Finding (Code/Detail)	Studies/Precedent
Main*	1 Lecturers acknowledge smartphones have become a major part of student life to affect their learning and engagement.	Park, 2019
	2 Lecturers and leaders want hard empirical evidence if they are to support SM, otherwise they think students waste time and lecturers have become lazy.	Abbas et al., 2019
	3 Some leaders consider emails sufficient for communicating online.	New finding

* Themes constituting the main theme of (Research & Evidence).

The increasing dependency of students on smartphones and the prominent role smartphones now play in student life is acknowledged in this present study and, also, by others, such as Park (2019). The view that students have become lazy and waste their time using social media is supported in a study conducted in Pakistan by Abbas et al. (2019). Both are listed among their top nine negative factors which led them to conclude that the overall influence of social media on students' learning is negative, and to advocate for better use of web-based social networking through more research. On the comparative use of email, text messaging and social media for communication, a decade earlier, email was most preferred (Baptist et al., 2011), but social media is having an increasingly profound influence now in interpersonal communications (Subramanian, 2017). However, some academic leaders who are senior faculty still prefer emails and consider them to be sufficient for communicating online (ML1-3). Although no study was found to support this finding, it is likely that senior faculty in other institutions, since they are of earlier generations relative to the current generation of students, also prefer older or more established forms of communication, and do not see the need for social media to replace them.

On the theme of lecturers' awareness and attitude (ML2), five key findings emerged from the data collected in this study (see Table 6.13 below).

Table 6.13: Key findings for the theme of Lecturers' Awareness and Attitude (ML2)

Main Theme*	Finding (Code/Detail)		Studies/Precedent
Main*	1	Younger lecturers are generally more supportive of SM than older ones who have yet to accept it as a tool.	Moran et al., 2011 ; Mwalimu et al., 2017; Kapidzic, 2018; contradicts Mardiana, 2020
	2	Even younger lecturers are not taking full advantage of SMPs due to lack of awareness and attitudes.	Shelton, 2017
	3	Some older lecturers find SM too complicated.	New finding
	4	Some female lecturers are concerned with privacy issues but could be encouraged if they see SM benefits.	Mazana, 2018; Karusala et al., 2019
	5	Leaders want fuller SM integration to avoid seeing students and their complaints.	New finding

* Themes constituting the main themes of (Lecturers' Awareness & Attitude).

Shelton's (2017) study presents interesting findings because they suggest lecturers do not see social media technology as promising and have abandoned using them. Their results are based on interview data collected from three UK universities. This would suggest the lecturers did carefully consider using social media, but in their wisdom decided against continuing to use it. Their experiences must have made them averse to using it for educational purposes and advising others to do the same. This issue was discussed earlier as showing the existence of a generation gap, but Shelton's study confirms that this gap is not simply due to a difference in likes and preferences, rather, that it is founded on a rational evaluation of the technology's usefulness in education.

As was also noted earlier, there is however a difference among lecturers themselves. The present study found that younger lecturers are generally more supportive of social media relative to older or senior ones, and this corroborates the findings of earlier studies by Moran et al. (2011) and Mwalimu et al. (2017). Consequently, younger lecturers make more frequent use of social media than their older peers (Kapidzic, 2018). The positive attitude and intention toward using social media for supporting instruction is also confirmed by Olasedidun and Ganiyu (2020) in their survey of 1069 lecturers in Nigeria. The average age of the lecturers is not mentioned but it may be that the majority of them were from the younger generation of lecturers. In a study conducted in Indonesia with findings to the contrary (Mardiana, 2020), it was found that it is younger lecturers rather than older ones who have difficulty in adapting to using new technology. The underlying

reason found in this case was that the younger lecturers are neglectful in increasing knowledge and feel they are already in their comfort zone. It may be that the younger ones in the context of Indonesia where this study took place are compelled to be more obedient and leave change considerations to their older and more experienced peers.

Differences among the lecturers is also apparent gender-wise. The present study found that female lecturers are more likely to be concerned about privacy issues, and this concern is reflected in the literature (Karusala et al., 2019). This situation is related to their expression of safety concerns (MS3-3; Knott & Wassif, 2018; Roopchund, 2019), and it parallels the vulnerability felt by female students discussed earlier (MS3-3 and 6). As Alfelaj (2016) remarked in their study in Kuwait, integrating educational technology is not only about the lecturer or the technology, but what students need and what they prefer.

On the theme of tailored and accessible training (ML3), four key findings emerged from the data collected in this study (see Table 6.14 below).

Table 6.14: Key findings for the theme of Tailored and Accessible Training (ML3)

Main Theme*	Finding (Code/Detail)	Studies/Precedent
Main*	1 Lecturers need practical skills developed through workshops and training on SMPs.	Alshabeb & Almaqrn, 2018; contradicts Cilliers & Murire, 2017
	2 Some female lecturers have little time to learn about SMPs.	New finding
	3 Some lecturers want SMP training to cover issues of age, culture, gender and attitudes.	New finding
	4 Leaders do not train for SMPs, but some lecturers do not even attend other lectures introducing new ideas.	New finding

* Themes constituting the main theme of (Tailored & Accessible Learning).

The lecturers in this present study admit they need to have practical skills developed to use SMPs (ML3-3). This training is necessary due to the deficiency of knowledge on how to use social media (Alshabeb & Almaqrn, 2018). On the other hand, it is also claimed that using social media does not require much training because lecturers already use social media technology (Cilliers & Murire, 2017). While this may be true for many lecturers, especially younger lecturers, there may still be scope for providing training to prepare them for applying the technology effectively in the higher education context. Specifically, the present study reveals lecturers would like to cover issues related to age, culture, gender, and attitudes (ML3-3), which are non-technical aspects.

There are three new findings under this theme related to training. Female lecturers are short of time to receive this training due to the chores they have to do when they are at home (ML3-2), and lecturers in general would like the training to cover issues of age, culture, gender and attitudes if it is provided (ML3-3). However, it is also noted that some lecturers do not even attend those lectures which introduce new ideas (ML3-4), which begs the question, whether they would do the same if academic leaders did train for SMPs.

On the theme of voice for lecturers' control (ML4), seven key findings emerged from the data collected in this study (see Table 6.15 below).

Table 6.15: Key findings for the theme of Voice for Lecturers: Control (ML4)

Sub-Theme**	Finding (Code/Detail)	Studies/Precedent
SM and the curriculum**	1 Lecturers feel they are not being heard on involving SM in the curriculum.	New finding
	2 Younger lecturers feel the curriculum needs updating, but older ones do not like change so do not support SMPs despite knowing it could ease pressure.	Contradicts Mardiana, 2020
Time allocation**	3 Lecturers have no voice to decide working hours and end up working more.	New finding
	4 SMPs as time-consuming for lecturers who are not paid for it either.	See Hasani & Hendrayana, 2018
	5 Lecturers prefer limiting lecture time to integrate online time due to the usefulness of SMPs.	New finding
	6 Lecturers prefer transforming seminars to online because SMPs can facilitate better discussion.	New finding
	7 Leaders view online time as challenging due to lack of accountability (cannot ascertain student attendance and lecture engagement).	Ramage & Moorley, 2019

*** Sub-themes relating to the main theme of (Voice of Lecturers: Control).*

In a study by Mardiana (2020), the majority of lecturers (85 out of 87) expressed their willingness to adapt to adopting social media and online teaching. There were differences due to age however, as older lecturers were more willing to adapt than younger ones. This contradiction with the present study was discussed earlier under Table 6.13. The preferences expressed by the lecturers (ML4-1, 3, 5 and 6) are all new findings in this present study. They are about lecturers not being heard for considering integrating social media in the curriculum, in deciding their own working hours, limiting lecture time to allow for this greater usage of social media, and transforming seminars to online sessions.

There are other issues however, that need to be considered for formally supporting SMPs. Lecturers already face time constraints for guiding their students in particular (Hasani & Hendrayana, 2018), and lack of accountability is an issue with social media (Ramage & Moorley, 2019), and this underlies those of safety and privacy which have been discussed already. Arranging for online time is therefore challenging because it would mean having to record student attendance and their engagement with lectures (ML4-7).

On the theme of SM and assessment (ML5), 13 key findings emerged from the data collected in this study (see Table 6.16 below).

Table 6.16: Key findings for the theme of SM and Assessment (ML5)

Sub-Theme**	Finding (Code/Detail)	Studies/Precedent
Student assessment**	1 Lecturers would use SMPs more if they were included in the curriculum for assessment.	Bikanga Ada et al., 2017
	2 Lecturers are under no pressure to use SMPs but would adopt them if they were part of the curriculum.	New finding
	3 Some lecturers are willing to mark students' participation if it makes them motivated and engaged (but not for testing knowledge).	Oh et al., 2020
	4 Lecturers are willing to encourage students to create online learning materials in the form of videos.	Buana, 2019. Albahiri & Alhaj, 2020
Lecturers' assessment**	5 Lecturers think using SMPs in assessment would encourage their use, but this is difficult due to awareness lacking their usefulness.	Ebele, 2014
	6 Leaders ignore lecturers' efforts and time spent online helping students.	New finding
	7 Leaders advise including online engagement with students in assessing lecturers, but this must be added to their job specification.	New finding
Intrinsic and extrinsic rewards**	8 Lecturers find teaching stressful and are often busy, and are not encouraged from above, nor thanked or appreciated.	Syed et al., 2020
	9 Lecturers feel intrinsic and extrinsic rewards would encourage and motivate them to adopt SMPs and spend more time online.	Chawinga, 2017
	10 Lecturers use SMPs outside office hours due to its benefits but are not paid for it.	Ademiluyi & Ademiluyi, 2020
	11 Leaders consider the extra help lecturers give students online a waste of time.	Ademiluyi & Ademiluyi, 2020
	12 Leaders are aware of Lecturer efforts in using SMPs but can only evaluate them based on the curriculum in line with university policy.	New finding
	13 A reward scheme for lecturers for innovative teaching practices could encourage older lecturers to adopt SMPs.	New finding

** *Subthemes relating to the main theme of (SM & Assessment).*

Educators and students alike have a positive attitude toward using social media on mobile devices for the purpose of assessment and giving feedback (Bikanga Ada et al., 2017). The present study confirms this for assessment, and also for including it in the curriculum.

If social media is incorporated formally this way, it would make lecturers use social media (ML5-2), as would giving them intrinsic and extrinsic rewards for doing so (ML5-9), especially a reward scheme for innovative teaching practices (ML5-13). A reward scheme would provide incentives for instructors to use these technologies in class (Chawinga, 2017), and students would also be encouraged to participate more actively if they are rewarded for their participation (Chawinga, 2017). The lecturers in this study lack an awareness of the usefulness of using social media, which is also an issue elsewhere, such as in Nigeria (Ebele, 2014).

As things are, however, teachers and lecturers in Saudi Arabia are already stressed due to workloads and the need to maintain high professional standards (Syed et al., 2020). The benefits of using social media would therefore need to be compelling, or else the lecturers themselves would need to be officially compelled to use social media as mentioned. Furthermore, lecturers are also willing to encourage students to create online learning materials in the form of videos (ML5-4). The benefits here that could compel the lecturers to do so are improved pronunciation, speaking skills and vocabulary, especially in the case of language learners (Buana, 2019). This visual element has been shown to play a pivotal role in enhancing Saudi EFL students' proficiency (Albahiri & Alhaj, 2020). Three of the five new findings relate to academic leaders (ML5-6, 7 and 12) because there are not many studies on them.

6.6 Key Challenges in Implementing Social Media

The data related to key challenges in implementing social media in Saudi Arabia HE uncovered the following themes: administrators' awareness and attitudes, poor awareness and attitude of older lecturers, old methods and routine preference, lecturer harassment and respect, invasion of privacy and time, bullying between students and their exclusion, no university e-safety protocols, gender mix, social media integration in assessment, time and availability, information validation and English resources, complication of using Blackboard, poor internet, voice resistance of lecturers, SMPs not being designed for education, and academic leaders considering Blackboard as the solution instead.

6.6.1 Summary of responses

Administrators' awareness and attitudes: Lecturers blame administrators' inability to adopt new methods reflecting the "*digitally aware*" age, hence a gap with students and leaders. Mostly younger lecturers appreciate the convenience and potential of SM in education, but also acknowledge senior ones in admin positions do not "*formally*" adopt

it due to poor attitude towards technology and lack of awareness. A lecturer said, *“administrators need to formally instruct us to use SM”* but claimed *“they are not fully aware of how useful”* SMPs are. Another lecturer admitted some leaders, particularly older ones, resist change because they think *“it wouldn't work and... would create more problems than benefits”*. However, leaders did not mention awareness or attitude as a challenge and diverted from criticising themselves. In a gender comparison made by one female lecturer, she found that *“women are less active on SM, and that makes them more resistant... and... less aware of the advantages”*.

Poor awareness and attitude of older lecturers: Administrators' awareness and attitudes are challenges, including lecturers' ages. Age has been pointed out earlier as a likely factor explaining differences between the views of lecturers and leaders who are *“old lecturers”*. One lecturer pointed out that the academic leaders *“are middle-aged or older, and convincing them of anything is a hard task”*. Another female lecturer admitted, *“Communicating with older lecturers is not easy, they seem to speak a different language”*. She also admitted to being *“less experienced”*, but that she is also *“made to feel that... [so] bringing new ideas forward are challenging”*.

Old methods and routine preference: For older lecturers who are of a *“different”* or *“pre-technology generation”*, *“traditional methods”* and *“routines”* are comfortable for them, so they resist change. One lecturer who *“still follows the same methods”* explained that he *“can see that nothing has changed”*, and another pointed to a challenge in promoting integration and collaboration between the two generations, saying that *“older lecturers and leaders are more aligned and... resist some of the ideas we bring forward”*. An older lecturer justified his *“old way”* based on *“blackboard and chalk”* where his students *“listen and respect”* him. He tried using WhatsApp, but to him it *“honestly felt very silly”*, and he feels *“more comfortable”* dealing with students in his office and lecture room. Students also notice the difference and describe some lecturers as *“old school”* and their lectures as *“very boring”* when SM is accepted as a part of the identity of student life which is already stressful. Students would rather read articles and books online *“to save time and money”* than go to a library or print them.

Lecturer harassment and respect: Some lecturers feel some students *“misuse”* SM and display behaviour deemed *“offensive”*. They are *“put off”* by a few students who *“don't think before they post a message”*. One lecturer asks his students to behave, but sometimes they joke about things he posts, use *“unfriendly emojis”*, or are otherwise *“unappreciative”*. Two students were removed from his group for these reasons. A female

lecturer also experienced a hacking incident from male students who got hold of her Twitter account to communicate with female students. She overcame this “*traumatising experience*” and regained her account, but it has made her not feel safe online. Leaders are also concerned about potential harassment of lecturers based on hearing “*some uncomfortable cases*”, and “*would rather not put them in that position online*”, and students acknowledge some lack respect. For instance, one “*feel[s] embarrassed*” when one of their friends jokes about their lecturer’s voice.

Invasion of privacy and time: By creating a WhatsApp group, lecturers feel students expect they can “*reach out*” to them anytime. However, students sometimes do so during “*unsociable*” hours which creates more work for them and makes them feel uncomfortable. Lecturers feel many students do not respect their “*private*” time, especially around assignment and exam time. One said students expect him “*to be prompt in answering them*” too, and another lecturer recalled when his students started texting and then calling him for help prior to an exam, which made him feel “*uncomfortable*” and consider this as the side of SM that “*cannot be tolerated*”. Privacy is even more important for female lecturers due to “*traditional family responsibilities*”, as sometimes “*students expect too much*”.

Bullying between students and exclusion: Lecturers encourage their students to discuss between themselves in addition to lecturer-student communication, but some students take it too far which leads to bullying. One lecturer who encourages academic discussions online said he is “*not there to govern it*”. Although this allows for feedback and response, “*not all students are constructive*”, and some are even “*degrading of other peers*”. A victim who felt “*excluded from conversations*” and “*not part of the group*”, said some of her peers do not take her ideas seriously and are dismissive. A male student who admitted to making jokes on WhatsApp and said he can defend himself thinks lecturers can “*learn much better this way*” by seeing who is insulting and taking them out.

No university e-safety protocols: Lecturers and leaders admit there are no clear university or national e-safety and anti-harassment guidelines or protection protocols, so they follow “*logic and common sense*” in using SM. A female student said “*some girls don’t like sharing their numbers*” because they do not feel safe, but the university does not protect them, so they have to “*improvise*” with their own rules. A leader explained they “*do not have facilities to keep everyone safe online*” because SM is “*not formally adopted*” and thinks “*as a country, we are not ready*” either.

Gender mix: Gender challenges SMP implementation. For instance, lecturers may be “*sceptical in communicating with the opposite gender*”, and are concerned with their “*reputation*”, but leaders “*do not wish to upset social norms and university rules*”. One male lecturer was “*warned about private online communication*” by a leader, so he communicates with girls in his office hours and “*wouldn't dare to initiate a WhatsApp group for them*”. Gender mixing in the university only happens in specific settings, such as field work. A female lecturer who described herself as open-minded said both genders “*are here to learn*” so she mixes “*to [a] certain degree*”, but she would not want male students to have her personal number. A leader reminded that the society is conservative, and they are still “*coming to terms with mixed gender universities*”, so he envisions mixed-gender communication via Twitter but not WhatsApp as “*It will reflect negatively on the reputation of the university*”.

This contrasts with the views of male and female students who are more accepting of mixed-gender communication. Students think it should be normalised in this digital age as long as there is mutual respect. One girl who described herself as “*respectable*” follows a few male lecturers “*for educational purposes*” and with male students too on public forums, and everyone is “*respectful*”. She thinks “*it is not the students... [but] lecturers who are scared about communication*” with the other gender.

SM integration in assessment: Using SM in assessment is challenging. Lecturers feel using SM formally makes it more likely to be used in assessment, but it is time-consuming and creates “*extra work*”, and there is lack of guidance on how to assess students online. It was suggested lecturers mark students' online participation and evaluate their engagement. One lecturer noted students are more engaged online than in the classroom, but it would take time to assess this “*and it is hard to follow 100 students online*”. Another lecturer corroborated that they are “*overworked*” by teaching hours and additionally using SM, and thinks “*with good guidance, we can integrate SM in assessment but not anytime soon*”.

Time and availability: Lecturers make office hours available for their students to ask any questions, but SM allows them to reach those who would not normally come. However, they cannot guarantee online availability, and although they see benefits, since it is of their “*own will*”, it can be stopped any moment. Availability is therefore an issue as long as it is unpaid for or not formalised. One lecturer has arranged office hours which “*no one attends*”, but online he receives many questions. Although he feels obliged to answer, “*it is time-consuming and not financially rewarding*”. Another said his students take his

online availability for granted though it is voluntary, and he is “*not available all the time*” to respond.

Information validation and English resources: Online communication and discussion requires many online resources, such as YouTube videos, journal articles and web-based content. Accumulating these on one platform is challenging, as they cannot advise on which resources are good. They encourage students to read from different sources, but getting clear and consistent content, and verifying their accuracy are challenging. Another lecturer noted lack of Arabic content on science, but English resources take time to understand, so he suggested “*we could do our own Arabic videos*”. However, one student expressed concern over the content exchanged online between students, as some of this “*is not accurate*”, and wished “*lecturers spend some time checking such videos*”.

Complication of Blackboard: Blackboard is used by all lecturers to give all information about their course but are not confident in it compared to SMPs which are mainly used for communication. One lecturer revealed students “*only use it [Blackboard] to submit work or to download my lectures, not much else*”, and another also said students “*do not relate to Blackboard*” because they find it hard to manage and due to technical issues, so they ask for lectures to be sent via WhatsApp. Students themselves referred to Blackboard as the “*university website*”, and find it “*hard to navigate*”, especially for accessing the online library and resources.

Poor internet: Accessing the internet can be challenging in Saudi Arabia, so students often have to use “*their own mobile phone data*”, which for one led to “*a huge mobile data bill*”, or else they have to go to a coffee shop. A lecturer admitted it has been “*an issue for a while*” although it is improving. Internet availability is mainly limited in rural areas where many students come from, so “*it is not easy to communicate*” for them, and they sometimes end up without “*WhatsApp for weeks*”.

Lecturer's voice resistance: For lecturers to be motivated to use SM, they need to feel more in charge, but leaders resist hearing their voices, so lecturer input is limited which is an obstacle. Another lecturer suggested they should collaborate for the good of students and accept change. This requires a change in attitude of leaders so that they listen to lecturers and accept SM.

SMPs are not designed for education: It is mostly leaders and older lecturers who are sceptics and who consider SMPs serve a purpose for communicating and sharing information, and are therefore “*designed for a social purpose, [but] not for education*”.

Some even view SM as a distraction. One leader stressed the university already provides *“a lot of resources, classrooms, computers, digital libraries and the university digital platform”*, and considers this sufficient and that lecturers should not rely on SMP tools except for communication, *“as it is a distraction from what students are supposed to do”*. A female lecturer concurred with this saying *“SMPs are supportive tools that have no depth in an educational sense”*.

BB is the solution (leaders): Leaders described Blackboard as useful and a “formal platform” while discussing SM challenges. They believe lecturers and students do not utilise it fully and prefer the *“easy option of SM”*, which they do not see as the way forward, whereas *“Blackboard does everything that SM does, and it also offers privacy and protection... [and] lecturers have regular training in using Blackboard too”*. Another added that help is also made available to students for using Blackboard and the university invested “a lot in that”. She sees the situation differently *“as a matter of attitude and poor adoption of Blackboard”* which supports uploading videos and engaging in discussions.

6.6.2 Comparison and contrasts

The generation or age gap was apparent again when it was noted that younger lecturers appreciate and welcome SMP use in education, but their senior peers do not because they do not see its usefulness. Not all are convinced SMPs are suitable or designed for educational purposes. Older lecturers resist change and convincing them, otherwise, is difficult. Using SMPs in assessment could compel them to accept them, but there are issues such as being overworked. Otherwise, lecturers prefer to use traditional methods and are content with the Blackboard LMS. This contrasts with what students prefer, as they prefer to use social media instead. There is also a point of tension between lecturers and leaders. Lecturers would like to feel in charge if they are to use SMPs, but leaders resist hearing them. In contrast, an area of cooperation between lecturers and students is highlighted by the making of educational video resources available online.

The misuse of social media is a problem that has been experienced by lecturers and students alike, especially female lecturers and students, which also concerns leaders to know that this happens. Extreme cases are in the form of bullying online, which has been experienced by both lecturers and students. The lack of rules and e-safety protocols does not help, which they could if they are devised. Another shared challenge is the poor internet. Gender-mixing highlights another area of differences. It is something students are more comfortable with, but which concerns older lecturers and leaders. Privacy and time are a struggle between lecturers and students in that lecturers make their valuable

time available for their students so that the students can communicate with them online, but some students take this availability too far by contacting at inconvenient times. The problem is more acute at the time of assignments and exams.

6.6.3 Corroboration and new findings

This subsection focuses on comparing the challenges in using social media in education found in this present study with those in other studies. The study of Abbas et al. (2019) could be useful because it investigated the impact of social media on a range of learning behaviours. Their evidence was taken from data collected on university students in Pakistan. It is not the same context, but some challenges are similar to those found for the participants in this present study. The comparisons are drawn separately for each matching challenge.

Another study that can be compared usefully with the findings in this present study on the perceptions of female students on the use of social media in higher education in Saudi Arabia is that of Alshehri (2020). The study was conducted at a new university to investigate current usage of SM-based tools, their benefits, and difficulties faced particularly by females. The sample size of 23 students is very small, but the insights are still worth comparing for the findings that are the same or on the same topic or issue in this present study. The comparative findings could be important for decision-makers in universities with significant numbers of female students.

On the theme of administrators' awareness and attitudes (C1), six key findings emerged from the data collected in this study (see Table 6.17 below).

Table 6.17: Key findings for the theme of Administrators' Awareness and Attitudes (C1)

Main Theme*	Finding (Code/Detail)	Studies/Precedent
Main*	1 Lecturers view the digital gap with students and leaders due to administrators' inability to adopt new methods.	Al Zaidi et al., 2014; Varghese & Pistole, 2014
	2 Mostly younger lecturers appreciate SM in education whereas seniors lack awareness and have poor attitude.	Contrasts with Mardiana, 2020
	3 Lecturers want to be instructed formally in using SM to know its usefulness.	Alshahrani et al., 2017; Bikanga Ada et al., 2017;
	4 Mostly older lecturers resist change because they think it has more problems than benefits or will not work.	Talukder et al., 2020; Moran et al., 2011
	5 Leaders do not see awareness or attitude as a problem.	New finding
	6 Women are less active on SM than men, so they are less aware of its advantages and more resistant.	Contradicts Hautala, 2019

* *Main themes constituting the main theme of (Administrators' Awareness and Attitudes).*

The digital gap existing between the groups of participants in this present study is directly related with what was described before as the 'generation gap' (see discussion for MS1). On C1-2, a more extensive nation-wide study in the US revealed it is not lack of awareness of social media that inhibits older lecturers from using it, but their seeing it as not so useful based on their more mature and longer experience in the field of education. The contrast between the perceptions of older and younger lecturers is clear in this present study. It was discussed earlier in sections 6.3.3 and 6.4.3 (see also ML4-2 on older lecturers not liking change). Older lecturers' resistance to change by adopting new technology found in the present study could be due to 'technology anxiety' (Talukder et al., 2020) or increased workload (Al-Hunaiyyan et al., 2017), but it is more likely that one main reason is not being convinced of its advantages. This view is reflected in the data in this present study (see C1-3 above), and also confirmed by Moran et al. (2011).

As discussed further on in section 6.5.3 (see ML1-2), and supported by Abbas et al. (2019), the explanation of the difference between the generations of lecturers is that older lecturers simply do not have enough empirical evidence to support using social media for educational purposes. The numerous failed and waned technologies of the past is further proof of their greater experience of knowing what works best and what does not. Regardless, the other reason of being inadequately skilled in using social media could also be true (as mentioned in 6.4.3) and is probably a stronger one. This is evident given

that this same pattern seems to be present in the wider population and non-education contexts as well, and the various benefits seen for using social media, particularly how it facilitates communication and accessing information.

It may be noted that social media is not the first time that new technologies have been applied in education. For example, MOOCs (Massive Open Online Courses) were in vogue just a few years, but now their popularity has waned while social media has taken hold. Technology is constantly evolving. Social media might also be replaced by tools in future that provide for more immersive and individualised learning, and which involve artificial intelligence (Marr, 2020). Senior lecturers likely know of many such technologies and have witnessed their popularity and decline during their career. This might be one reason why they are not eager to adopt social media in haste.

Reasons for educational technologies failing in the past have been that they were expensive, the equipment was not reliable or dependable, the instructional materials did not meet students' needs adequately, and teachers lacked in the necessary training and skills to make effective use of them (Provenzo et al., 2004: 88). It must be said however, that using social media does not require advanced technical skills (Allen & Nelson, 2013), so the reasons for not using social media so much are probably more psychological.

On women being less active on social media than men, this is contradicted by Hautala (2019). However, they are more resistant to using it (C1-6), and their use of social media for information and educational purposes is weak, possibly because they tend to experience more problematic uses of the internet (Kircaburun et al., 2018). These issues are covered under privacy and safety concerns (C3), and an extreme issue is that of online bullying experienced by many females.

On the theme of lecturers' ages (C2), eight key findings emerged from the data collected in this study (see Table 6.18 below).

Table 6.18: Key findings for the theme of Lecturers' Age (C2)

Sub-Theme**	Finding (Code/Detail)	Studies/Precedent
Poor awareness and attitudes**	1 Administrators' awareness, attitudes, lecturers' ages and introducing new ideas are key challenges.	See ML3-4
	2 Age is a key factor to explain differences between views of lecturers and leaders (older lecturers).	(See discussion on the generation gap.)
	3 Communicating with and convincing older academic leaders is not easy according to lecturers.	Moran et al., 2011
Old methods and routine preference**	4 Older lecturers and leaders prefer traditional methods and routines, so they resist change.	See MS1-2
	5 Older lecturers feel more comfortable and respected using old ways.	Mardiana, 2020
	6 Lecturers are challenged by promoting integration and collaboration between the generations.	Alfelaij, 2016
	7 Students view some lecturers as 'old school' and boring when SM is accepted in stressful student life.	Whelan et al., 2020
	8 Students prefer to read online to save time and money than go to a library or print materials.	De Groote et al., 2014

** Subthemes relating to the main theme of (Lecturers' Age).

Introducing new ideas is understandably challenging for lecturers (C2-1), but one reason for this could be that some lecturers do not bother to attend training lectures in which new teaching ideas are introduced or discussed (ML3-4). The age-related findings here should be interpreted in light of the generation gap discussed earlier for the theme MS1 under Table 6.8. Age has already been identified as a key factor that explains the differences in perceptions between students and lecturers, and between younger and older lecturers. The reason why convincing older lecturers is difficult (C2-3) is because they fail to see the usefulness of using social media compared to their younger peers (Moran et al., 2011). It is not surprising then older lecturers and leaders prefer traditional methods (C2-4) with which they are familiar and comfortable (C2-5), and in the view of students, these lecturers are considered as 'old school' and boring (C2-7). They also prefer it due to time and cost savings (C2-8; De Groote et al., 2014). The possibility of integrating or formally incorporating social media in the curriculum was discussed earlier as well (MS4-1). As Van Den Beemt et al. (2019) noted, this would be a major change with impacts, such as the need for developing certain skills. It was noted before that some leaders are also in

favour of this integration (ML2-5), presumably because formal adoption would make them support SMPs better than they are doing at present.

On the theme of ethics and rules (C3), 18 key findings emerged from the data collected in this study (see Table 6.19 below).

Table 6.19: Key findings for the theme of Ethics and Rules (C3)

Sub-Theme**	Finding (Code/Detail)	Studies/Precedent
Lecturers' harassment and respect**	1 Lecturers feel some students misuse SM and display offensive behaviour online without thinking.	Mazana, 2018
	2 Some students are unappreciative and unfriendly or mock online.	New finding
	3 Female lecturers risk being hacked, traumatised and thus unsafe online.	Karusala et al., 2019; Roopchund, 2019; see also ML2 and MS3-3
	4 Leaders are also concerned of potential online harassment.	Kutbi, 2020
	5 Students acknowledge some of them lack respect and joke about their lecturers.	Aifan, 2015
Invasion of privacy and time**	6 Lecturers feel students expect they can reach out to them anytime online.	Smith et al., 2014
	7 Students who contact lecturers during unsociable hours burden them and make them feel uncomfortable.	Sutch & Klir, 2017
	8 Students mostly disrespect lecturers' private time and make them uncomfortable during assignments and exams.	Sutch & Klir, 2017
	9 Privacy is more important for female lecturers due to their traditional family responsibilities.	Mazana, 2018; Karusala et al., 2019
Bullying between students and exclusion**	10 Some students take things too far when communicating with each other which leads to online bullying.	Kircaburun et al., 2018; Abbas et al., 2019
	11 Lecturers encourage academic discussions online but do not see themselves there to govern it.	Kolan & Dzandza, 2018
	12 Not all students are constructive during online academic discussions.	Venter, 2020
	13 Some students degrade their peers by not making them feel part of the group or dismissing their ideas.	Hrastinski & Aghaee, 2012
	14 Students who joke online think lecturers can learn much better this way.	New finding
No e-safety protocols**	15 There are no university or national e-safety and anti-harassment guidelines or protection protocols.	Kutbi, 2020
	16 Leaders and lecturers use 'logic and common sense' in the absence of guidelines and protocols.	New finding
	17 Some females do not feel safe sharing their numbers online, and the university does not protect them.	Knott & Wassif, 2018
	18 Leaders do not have facilities to keep everyone safe online due to non-formal adoption of SM.	See Van Den Beemt et al., 2019

** Sub-themes relating to the main theme of (Ethics & Rules).

Social media compensates for the limited office hours of lecturers (Smith et al., 2014) and makes it easy to communicate from afar, and this is probably why some students take undue advantage. This is especially a problem around assignment and exam time (C3-8), which was confirmed empirically by Sutch and Klir (2017) in 2016. However, there are greater concerns as well. According to Mazana (2018), social media is misused in education due to lack of governing rules (C3-15). The issue of lack of guidelines for using social media in universities in Saudi Arabia (C3-15) was also raised by Kutbi (2020), but the research found that even in those institutions where such guidelines have been made, as at King Abdulaziz University, there is lack of knowledge and understanding of them. One reason offered for this is that the guidelines do not comply with best practices. This means that guidelines would have to incorporate best practices, be clear and easy to understand and implement, and social media users would need to be made well-aware of them. At the researched institution in the present study, there are no such guidelines currently, so these things should be considered when devising them for the first time. Having these guidelines, protection protocols could go some way to dealing with the various safety related issues found in this study. The greatest concern of disrespect is when it relates to religious values (MS2-5; Aifan, 2015).

Female students themselves feel uncomfortable in certain situations. The university does not protect students while using social media, nor do leaders have facilities to keep them safe due to it being a non-formal way of learning (theme 18), so some females do not feel safe (theme 17). This is in line with what Mishra et al. (2017) found when female students in particular do not feel prepared and therefore struggle in feeling confident about their own technological competence, except that the issue is more about personal safety than the ability to use social media technology. As highlighted before, the safety concerns are mostly of female lecturers and students (MS3-3), and this is not uncommon (Knott & Wassif, 2018; Roopchund, 2019). Finding C3-18 suggests something more can be done but only if SMPs are adopted formally. Fortunately, the present study has also shown that the lecturers do prefer formal incorporation of SMPs in curriculum and assessment (MS4-1), as also found by Van Den Beemt et al. (2019), so e-safety is something that can be dealt with (C3-18).

The problem of lack of privacy (C3-6 to 9) is the top concern of both academic staff and students in adopting social media (Willems et al., 2018). It exists due to limited options when using social media (Mazana, 2018), and as per this present study's findings (C3-9), this is of particular concern to female lectures due to their traditional family

responsibilities. Karusala et al. (2019) described it as an “additional burden” that women have to contend with when using social media. The problem of cyber-bullying is not peculiar to the institution at which this present study took place. It has been noted, for example, by Mishna et al. (2017) in their survey of 1,350 university students to be a significant one that affects students’ sense of mental health and well-being. This took the form of intimidating, threatening, angry and vulgar messages. A possible cause for this is a perceived sense of anonymity online, the lack of protection protocols (theme 15), and lack of rules (Mazana, 2018).

A related or perhaps wider issue is non-inclusivity given that some students dismiss others or their ideas quickly, or do not make them feel part of the discussion group (C3-13). Although an old study, which might suggest things have changed, Hrastinski and Aghaee (2012) also noted a lack of collaboration among students when using social media, although it was due to students working on different parts separately. Disconcertingly, some students also have the tendency to mock, tease or joke online (C3-14) with the thought that this would make things easier for lecturers somehow. Lecturers certainly encourage academic discussions among their students online (C3-11; Kolan & Dzandza, 2018), and younger lecturers assign students to facilitate them (MS3-9), but they do not see themselves there to govern these discussions (C3-11). While Kolan and Dzandza’s (2018) study confirmed the role of teachers in guiding discussions, their participants also acknowledged the need for minimising this time spent by students to prevent them becoming “obsessed” by them and from engaging in “unnecessary chatting” (p. 18). This is also viewed as discussions turning unconstructive (C3-12; Venter, 2020). In other words, all these findings point to the need for rules as expressed in the present study.

On the theme of gender mix (C4), nine key findings emerged from the data collected in this study (see Table 6.20 below).

Table 6.20: Key findings for the theme of Gender Mix (C4)

Main Theme*	Finding (Code/Detail)	Studies/Precedent
Main*	1 Lecturers concerned with their reputation are sceptical of communicating with the opposite gender.	Abbas et al., 2019
	2 Leaders do not wish to upset social norms and university rules.	New finding
	3 Some leaders have warned lecturers of communicating privately online, so they allocate office hours for female students.	New finding
	4 Gender mixing in the university only happens in specific settings, such as field work.	New finding
	5 Even open-minded female lecturers do not want male students to have their personal number.	New finding
	6 The conservative society explains why leaders are still coming to terms with mixed gender universities.	New finding
	7 A leader envisions communication via Twitter but not WhatsApp due to negative impact on university's reputation.	Abbas et al., 2019
	8 Students of both genders accept mixed-gender communication, and want it normalised as long as there is mutual respect.	Alkahtani, 2012
	9 It is not students but lecturers who are scared about communicating with the other gender online.	Abbas et al., 2019

* Themes constituting the main theme of (Gender Mix).

For students in Saudi Arabia, and by extension also those in other Arab and Muslim countries where gender segregation is common, social media is an ideal solution because it allows for communication and interaction without physical presence. Both genders accept this arrangement and would like for it to be normalised (C4-8). An earlier study by Alkahtani (2012), which was conducted in the same context of Saudi Arabia, expressed the same sentiment and also concluded that social networks could help promote collaboration between students of both genders. Social media offers the advantage of allowing students “to keep their cultural and religious values without physically intermingling with the opposite sex, which is a requirement of religion and culture” (p. 2).

Several new findings emerged under this theme of gender mixing. This was possible because the present study was conducted in a society where gender segregation is the norm and social media is providing an opportunity for gender mixing while still maintaining physical segregation. The new findings are leaders not wishing to upset these

norms (C4-2) and them still coming to terms with the new reality of mixed gender universities (C4-6), which might explain why they are warning lecturers of communicating privately online (C4-3). Even open-minded female lecturers are reluctant to let male students have their mobile number (C4-5), which is an issue of privacy for them (C3-9; ML2-4).

On the theme of lecturers' workload (C5), ten key findings emerged from the data collected in this study (see Table 6.21 below).

Table 6.21: Key findings for the theme of Lecturers' Workload (C5)

Sub-Theme**	Finding (Code/Detail)	Studies/Precedent
SM integration in assessment**	1 Lecturers feel using SM formally makes it more likely to be used in assessment though it is time-consuming.	Ebele, 2014. Bikanga Ada et al., 2017
	2 Lecturers lack guidance to assess students online to mark their participation or evaluate engagement.	New finding
	3 Lecturers note students are more engaged online than in class but agree it would take time to assess them all.	Cheng et al., 2020
	4 Lecturers are already overworked to assess students on SM.	Al-Hunaiyyan et al., 2017
	5 Lecturers think SM can be integrated in assessment with good guidance but not anytime soon.	New finding
Time and availability**	6 Lecturers' office hours are for questions, but SM allows them to reach those who would not normally come.	Cafferty, 2021
	7 Lecturers see benefits of SM but cannot guarantee online availability, nor can they stop it.	New finding
	8 Lecturer availability will remain an issue as long as it is not formalised or remains unpaid for.	Alshahrani et al., 2017
	9 No one attends one lecturer's office hours, but he receives many questions online, which is time-consuming and financially unrewarding.	Hasani & Hendrayana, 2018
	10 Students take lecturers' online availability for granted though it is voluntary, and they are often unavailable.	New finding

** *Sub-themes relating to the main theme of (Lecturers' Workload).*

The issue of workload of lecturers was highlighted earlier when considering the assessment of students on their online activities (MS4-5). Assessing students, while it might promote the use of social media and engage students (C5-1), would increase the workload for lecturers (Al-Hunaiyyan et al., 2017) when they are already overworked (C5-4). Increased workload is also related directly with the issue of giving attention online being time-consuming (C5-9). This suggests to only add this burden on lecturers if some of their other responsibilities or workload can be reduced, such as making office hours available for students which has little if any attendance in the age of social media (C5-9).

Besides, students are more engaged when they are online (Cheng et al., 2020), and social media allows lecturers to reach those students who would not normally come into the office to meet them (C5-6). One science lecturer who established an online active office hour said he was not only well-received by his students, but that it also received attention beyond the university's campus (Cafferty, 2021), and he is now expanding to create an 'Artistic Office Hour' for engaging his students in shared activities. Establishing this kind of close and active relationship with students is potentially beneficial for students' self-confidence and academic performance (Uleanya, 2020). This extent of availability is not normal in other institutions (Alshahrani et al., 2017), including the one in the present study. The situation could improve if social media is formalised (C5-8), otherwise students take their lecturers' online availability for granted (C5-10), and so it appears does the university.

On the theme of validation of information and resources in English (C6), six key findings emerged from the data collected in this study (see Table 6.22 below).

Table 6.22: Key findings for the theme of Information Validation and English Resources (C6)

Main Theme*	Finding (Code/Detail)	Studies/Precedent
Main*	1 Online communication and discussion require many online resources.	New finding
	2 Accumulating online resources on one platform is challenging due to determining which are good.	Kortemeyer & Droschler, 2021
	3 Lecturers encourage students to read from a variety of online sources, but verifying accuracy is challenging.	New finding
	4 There is lack of content on science online in Arabic.	Ahmad, 2020
	5 It takes time for students to understand resources in English.	New finding
	6 Students prefer lecturers to check videos before exchanging them online for students.	New finding

* Themes constituting the main theme of (Information Validation and English Resources).

Although C6-2 is a new finding, it is understandable that accumulating online resources is challenging due to the need to have quality resources because of the sheer quantity of resources of varying quality. Quality online resources in Arabic is even more difficult (C6-4) because of their scarcity, as found by a study which investigated ICT integration in an Arab kindergarten (Ahmad, 2020), which is not the same context as the present study. Some institutions may have established educational digital libraries for this purpose, but the challenge remains of identifying potentially helpful resources (Kortemeyer & Droschler, 2021), which is also a time-consuming process.

Online resources to support learning English were mentioned earlier as having a useful role in enhancing Saudi EFL students' proficiency (Albahiri & Alhaj, 2020; see Table 6.16). The students in the present study, however, still prefer for them to be checked by their lecturers (C6-6), which either reflects the strong hierarchical power-structure of Saudi society and trust in the lecturer, or that students have not been training in verifying sources. This may also be explained by observing that there are so many resources available online that it has become necessary for an expert to make recommendations, and there is no one else more suitable than lecturers.

On the theme of the complication of Blackboard (C7), four key findings emerged from the data collected in this study (see Table 6.23 below).

Table 6.23: Key findings for the theme of Blackboard is Complicated (C7)

Main Theme*	Finding (Code/Detail)		Studies/Precedent
Main*	1	Lecturers are not confident in using Blackboard for giving information compared to SMPs.	New finding
	2	Lecturers note students only use Blackboard to submit work or download lectures.	New finding
	3	Students find it hard to manage using Blackboard due to technical issues, so prefer WhatsApp.	Agarwal & Alrowaili, 2020
	4	Students find Blackboard hard to navigate, especially for accessing the online library and resources.	Agarwal & Alrowaili, 2020

* Themes constituting the main theme of (Blackboard is Complicated).

Agarwal and Alrowaili (2020) conducted a study among Saudi university students in which they compared the prospects and challenges of using WhatsApp with a university's own Blackboard LMS. The students preferred WhatsApp as an SMP over the LMS provided by their university. They acknowledged benefits and drawbacks of both, but their justification for preferring the SMP overall was that they felt it would be "constructively useful in making them better learners and [would] help them to achieve higher grades in assessments" (p.821). In particular, the students emphasised the team-based concepts involved in social media and the opportunities presented for self-directed learning. This study is of interest for comparing with the present one because the participants also commented on the same SMP and LMS in relation to each other. As in their study, the students in the present study also prefer WhatsApp over Blackboard (C7-3), and the difficulty of navigating the LMS (C7-4) is one of their reasons for doing so. The two other findings (C7-1 to 2) are related. One states that lecturers lack confidence in using Blackboard for giving information, and the second is the observation that students only use Blackboard for submitting their work or for downloading lectures.

On the theme of poor internet (C8), four key findings emerged from the data collected in this study (see Table 6.24 below).

Table 6.24: Key findings for the theme of Poor Internet (C8)

Main Theme*	Finding (Code/Detail)	Studies/Precedent
Main*	1 Accessing the internet is challenging in Saudi Arabia, so students often resort to using their own mobile data or go to a coffee shop.	Alenezi, 2018; Al-Ahdal, 2020
	2 Lecturers confirm internet access has been an issue.	Chawinga, 2017
	3 Internet availability is usually limited in rural areas.	New finding
	4 Students in rural areas often struggle with technical problems of internet (WhatsApp stops working).	New finding

* Themes constituting the main theme of (Poor Internet).

The issue of poor internet connection faced by university students in Saudi Arabia has been acknowledged in other studies as well (Alenezi, 2018; Al-Ahdal, 2020). The two new findings indicate that internet availability is limited in rural areas where students often wait for weeks to use social media, but this could be a situation that will improve over time as the reach of the internet expands to rural areas. However, students in Saudi Arabia are not unique in experiencing poor internet connection issues and having to make alternative arrangements. Where the same problem exists in Malawi for example, the results of a researcher (Chawinga, 2017:1) showed that “if appropriately deployed, Twitter and blogs are catalysts for the much-hyped learner-centred approach to teaching” due to how it facilitates interaction and discussion.

On the theme of lecturers' voice resistance (C9), three key findings emerged from the data collected in this study (see Table 6.25 below).

Table 6.25: Key findings for the theme of Lecturers' Voice Resistance (C9)

Main Theme*	Finding (Code/Detail)	Studies/Precedent
Main*	1 Leaders resist hearing lecturers, so lecturer input is limited for being in charge.	New finding
	2 Some lecturers feel they should accept change and collaborate online for the good of their students.	New finding
	3 Lecturer-student collaboration in using SM requires a change in leaders' attitude and acceptance of SM.	New finding

* Themes constituting the main theme of (Lecturers' Voice Resistance).

All three findings on the voice resistance of lecturers are new. They reveal lecturers at the institution are restricted in what they can do because leaders are disinclined to listen to them (C9-1). Some feel they should simply accept the changes and collaborate for the

sake of their students (C9-2), which others admit further collaboration would require a change in attitude among academic leaders (C9-3).

On the theme of SMPs not being designed for education (C10), three key findings emerged from the data collected in this study (see Table 6.26 below).

Table 6.26: Key findings for the theme of SMPs are Not Designed for Education (C10)

Main Theme*	Finding (Code/Detail)	Studies/Precedent
Main*	1 Mostly leaders and older lecturers are sceptics who consider SMPs only for communicating and sharing information; not for education.	Mardiana, 2020; see also Tawalbeh, 2021
	2 Some leaders view SM as a distraction from what students are supposed to do.	Marathe-Ravindra, 2018
	3 Some leaders think the university-provided resources are sufficient so lecturers should not rely on SMP tools except for communication.	New finding

* Themes constituting the theme of (SMPs are Not Designed for Education).

Information or knowledge-sharing is a key role of social media when it is used for educational purposes (Tawalbeh, 2021). However, the view of leaders (C10-2) that SM is a distraction “*from what students are supposed to do*” reflects the typical view of the older generation of academic staff who do not see any real benefits of using SM in education. Marathe-Ravindra (2018) also expressed this concern, but that it arises only when social media is used excessively, which seems reasonable. In Alshehri’s (2020) study, female students also share this view of SM being a distraction, but the students’ concerns are grounded differently. The female students are troubled by experiences of privacy breaches, cyber-bullying, lack of training and technical issues, whereas the leaders in the present study are more fundamentally opposed to the use of SM altogether.

On the theme of Blackboard being the solution (C11), three key findings emerged from the data collected in this study (see Table 6.27 below).

Table 6.27: Key findings for the theme of BB is the Solution (C11)

Main Theme*	Finding (Code/Detail)	Studies/Precedent
Main*	1 Leaders view Blackboard as a formal platform and useful, but which is not fully utilised by lecturers and students.	Mpungose, 2020
	2 Leaders think SM is preferred as an easier option over Blackboard even though it does the same, gives privacy and protection, and help and training is also provided.	New finding
	3 Leaders attribute the poor adoption of Blackboard as a matter of attitude even though it supports the same.	New finding

* Themes constituting the main theme of BB is the Solution

Blackboard is viewed by universities as a ‘formal’ platform compared to social media. This view is shared by the academic leaders in the present study (C11-1) and found by Mpungose (2020) in a study conducted in South Africa as well. The latter study which investigated students’ preferences for using an e-learning platform, found that students preferred WhatsApp as an informal platform over the university-provided formal Moodle platform. The present study adds to this by revealing what academic leaders think, and the difference in views is apparent. Academic leaders view the students as taking “an easier option” by using social media (C11-2) and consider this “a matter of attitude” (C11-3) despite, in their own view, both types of platforms are offering the same.

6.7 Synthesis of Key Findings

A discussion of the findings has been made above in detail. This subsection gives a synthesis of the key findings that emerge from the data and discussion in terms of shared and differing perceptions between the participants, corroborations and contradictions between the studies, and new findings. It is presented as a summary focused on directly addressing the research questions, which delve on the main contextual and cultural features of Saudi HE that support SMP adoption for learning, how social media is utilised to support teaching and learning, the nature of teaching and learning pedagogy in Saudi HE, and key perceptions of the three participant groups on SMP utilisation.

6.7.1 Shared and differing perceptions

The comparison and contrasts made between the perceptions of the three groups of participants (lecturers, leaders and students) highlighted a number of them that are shared and some that show lack of agreement or tension.

6.7.1.1 Agreements or shared perceptions

Use of SMPs: Both lecturers and students use SMPs for getting news and information, and sharing educational videos, including self-created ones.

SMP benefits: Both lecturers and students accept the modernity of SMPs, their potential in aiding comprehension, and their role in allowing for more supportive resources and different perspectives. They are encouraged by the opportunities they provide for questioning and discussions, especially to improve English. Additionally, students gain in confidence and improve interpersonal skills, while lecturers can reach their students, and females from the greater openness.

Student motivation and encouragement: N/A

Lecturer motivation and engagement: Lecturers agree on the need for training to use SMPs.

Implementation challenges: Lecturers and students cooperate in making educational video resource available online. However, both lecturers and students have experienced cases of misuse of social media including bullying online, and leaders are also concerned.

6.7.1.2 Disagreements or differing perceptions

Student motivation and encouragement: The size and variety of sources and quantity of information is helpful for students, but it makes lecturers concerned over their quality. See also under 'age and gender' factors.

Lecturer motivation and engagement: See also under age and gender factors.

Implementation challenges: Students prefer to use social media whereas older lecturers and leaders prefer traditional methods and are content with the existing Blackboard LMS. Lecturers would like to feel in charge if they have to use SMPs, but leaders resist hearing them. Lecturers make their valuable time available online for their students, but some students contact them at inconvenient times, especially during assignments and exams. Other differing perceptions are based strongly on the factors of age and gender, so these are summarised separately in the next subsection.

6.7.2 The factors of age and gender

6.7.2.1 Age-related findings

A key finding in this study is that age and gender account for many of the differences in perceptions of using social media. A gender gap exists, and it explains the marked differences in abilities between lecturers and students generally in using SMPs, and their

perceptions towards them in terms of uses, benefits and concerns. Although one internal contradictory finding was found (B1-2), the overall indication in this study is that younger lecturers and students are generally more in favour of using social media and more competent in using it compared to their older peers and the academic leaders. Also, female lecturers feel more equipped behind screens compared to F2F meetings (B5-4), and female students find male lecturers very helpful online (B5-5), but they need to be convinced before giving their mobile number in an online group (B5-3) out of privacy and safety concerns. Table 6.28 below summarises all the age-related findings in this study.

Table 6.28: Summary of age-related findings

Area of Finding	Students	Younger Lecturers	Older Lecturers and Leaders
Need for social media in education	It is not unnecessary.	N/A	It is unnecessary. Not designed or suitable for educational purposes. Emails are sufficient for communicating.
Use of social media for learning	In favour of it. Prefer to use it.	Generally, in favour. They appreciate its use.	Prefer traditional teaching methods. Do not see its usefulness. Content with Blackboard.
Capability in using social media for learning	Capable of using it.	Generally, more capable than older peers.	Not as skilled and sometimes need the help of students. Too complicated.
Degree of engagement while using SMPs	Feel better and more engaged.	More engaged.	No effect on engagement.
Selecting online information	Use online sources more readily.	Concerns over the quality of information.	Concerns over the quality of information.
Engagement rules	Concerned over their lack.	Concerned over their lack (especially females).	Concerned over their lack (especially females).
Assessing social media usage	Reservations of those who don't engage so much.	Generally, in favour.	Could be compelled to use it, but they are overworked.
Incorporating social media in the curriculum	Generally supportive and willing to use it more.	N/A	Still not likely to accept it because they do not like change.
If compelled to use social media in education	N/A	Like to feel in charge to use SMPs.	Resist hearing lecturers.
Gender-mixing	Comfortable with it.	N/A	Concerned by it.

6.7.2.2 Gender-related findings

A number of findings relate specifically to gender and gender-mixing. Table 6.29 below summarises these findings from this study.

Table 6.29: Summary of findings related to gender and gender-mixing

	Students in general	Female students	Female lecturers
Concerns	Comparatively fewer privacy, safety and security concerns.	-	Comparatively more privacy, safety and security concerns.
Misuse of social media	-	Experienced its misuse.	Experienced its misuse.

On gender mixing, it is noted above that, overall, students have no qualms about it, but older lecturers and leaders do have concerns about this trend, which includes communication between the genders online. Otherwise, gender-mixing only happens in specific settings, such as during field work (C4-4). Gender-mixing online also raises some concerns. Even some open-minded female lecturers do not want male students to have their personal number (C4-5). Some leaders have warned lecturers about communicating with female students online in private and advised to allocate office hours for them instead (C4-3). The reason why leaders are still coming to terms with mixed-gender in universities is the conservative society in Saudi Arabia (C4-6).

6.7.3 Corroborations and contradictions

There are many corroborations and contradictions of findings made in the present study with those in other previously conducted studies. These have been discussed above in detail already. The contradictory findings are much fewer, so these are reiterated here. One internal contradiction was found within the data of the present study. It was admitted by one lecturer that he had become more open with age, and they utilise whatever tools help them in learning (B1). This was discussed under Table 6.3, and it was mentioned that most indications are to the contrary, that younger lecturers are more open to using social media whereas older lecturers generally are not. For instance, it was found that younger lecturers are generally more supportive of social media than older ones who have yet to accept it as a tool (ML2-1). Although some studies support this observation (Moran et al., 2011; Mwalimu et al., 2017; Kapidzic, 2018), it also contradicts the study of Mardiana (2020). The following are the few more contradictions that exist between the present study and studies by other researchers:

- B3-4: Social media helps develop authentic relationships and makes students feel important, whereas Alshahrani et al. (2017) showed it creates gaps in relationships.
- MS4-9: Some lecturers think students learn better online nowadays, whereas a decade ago, Gysbers et al. (2011) found that the students in their study felt passionately about their lectures and recognised their value.
- ML3-1: Lecturers need practical SMP skills developed through workshops and training. This corroborates the study of Alshabeb and Almaqrn (2018) but contradicts Cilliers and Murire (2017).
- ML4-2: Younger lecturers feel the curriculum needs updating, but older ones do not like change, so they do not support SMPs despite knowing it could ease pressure. This finding is contradicted by Mardiana (2020).
- C1-6: Women are less active on social media than men and are aware of its advantages and more resistant. This is contradicted by Hautala (2019).

6.7.4 Other new findings

Besides the findings related to age and gender, which have been highlighted separately above, a number of new findings emerged from the present study, which are its original contributions to the research in this field of the utilisation of SMPs in higher education in Saudi Arabia. These findings revolve around four areas that transcend the following themes: (1) Uses and benefits of SMPs, (2) Promoting SMP use, (3) Role of age and gender, and (4) Challenges and concerns.

6.7.4.1 Use of social media for learning, attitudes and perceptions

Leaders and lecturers view SMPs as informal (C11-1), but among SMPs, WhatsApp and Twitter are considered as formal (G1-6). As may be expected, all students have experienced using them to facilitate their learning (G2-2), and nearly two-thirds of lecturers and academic leaders as well (G2-1). Older lecturers and academic leaders prefer traditional methods instead of using SMPs. They are content with the existing Blackboard LMS and consider emails sufficient for communicating online (ML1-3). However, some lecturers are not confident in using Blackboard for giving information compared to SMPs (C7-1), and they note that some students use Blackboard in a limited way only to download lectures and submit work (C7-2).

The leaders think social media is only preferred as an easier option over Blackboard even though it does the same, as well as giving privacy and protection, and help is also provided (C11-2). According to them, the poor adoption of Blackboard is a matter of attitude even though it supports the same (C11-3). They have also warned lecturers of communicating privately online and advise them to allocate office hours for female students (C4-3). Leaders prefer more integration of social media to reduce the complaints (ML2-5) and advise including online engagement with students for assessing lecturers, but this would have to be added to their job specification (ML5-7).

The lecturers are not under pressure to use SMPs. However, they are ready to adopt them if they were part of the curriculum (ML5-2). However, their existing efforts and time spent online helping students are ignored by their leaders (ML5-6). Leaders say they are aware of these efforts in using SMPs but can only evaluate based on the curriculum in line with university policy (ML5-12). They are reluctant to upset social norms and university rules (C4-2). A reward scheme could also encourage the older ones to adopt SMPs (ML5-13).

6.7.4.2 Benefits of using social media in higher education

In particular, the use of videos is helpful for students. It satisfies the need when classroom lectures are insufficient (G2-6). One student was found to stream educational videos for other students so that they can understand their learning material from different perspectives (G2-9). Related to this is the finding that students understand topics better when they have access to or read from multiple sources (MS2-3), as they are helpful and complementary for them (MS2-4). There are also reports of students from across the country benefiting from such videos (G2-8). Lecturers feel proud of their students watching educational videos in English, and when they translate them from English into Arabic (B2-14).

Some students also help their lecturers in creating online links (MS1-4). These contributions make their students proactive (B3-1), and having an online presence helps them feel comfortable in their group and part of the course (B4-4). This makes them feel included, and they need this inclusive experience and access to the best tools so that they also feel part of the university (B4-4). Whether using videos or otherwise, students claim they learn more from SMPs than they do from books and lectures (B2-11). Some lecturers are more engaged when using an SMP (MS1-3), and when lecturers do use an SMP, it makes their students feel better (MS1-5). For lecturers, it enables them to help the whole

group together (MS2-6). Some themselves acknowledge that they find lecture theatres awkward due to the lack of questioning and discussions which SMPs allow (B2-9).

6.7.4.3 Promoting the use of SMPs

Some findings are insightful for promoting the use of SMPs, that is, accepting their role in education, making their use formal and enabling them to be used more widely than at present. If students are assessed based on their use of SMPs or time spent learning and collaborating online, this may motivate them more in their studies (MS4-2), but lecturers would not want to force students to be more engaged by using SMPs if they are made to assess their online involvement (MS4-4). The lecturers lack guidance to assess students online anyway for marking participation and evaluating engagement (C5-2). Also, there are students who prefer to be silent. The latter rarely engage in group chat, although they could become more engaged if they are assessed (MS4-3). However, lecturers do think social media can be integrated in assessment with good guidance, but not anytime soon (C5-5). They see benefits of doing this but cannot guarantee their own online availability (C5-7). Another problem is that when they do make themselves available online, some students take it for granted, though it is voluntary, and they are not always available (C5-10).

6.7.4.4 Challenges and concerns

All three groups of participants raised a number of concerns with using SMPs. One area of concern is technical barriers and availability of internet access. Internet availability is usually limited in rural areas of the Kingdom (C8-3). For this reason, many students in the rural areas often face internet issues that they can not access their WhatsApp temporarily (C8-4).

Some lecturers find SMPs hard to maintain (MS3-8), and even some younger ones resort to assigning students to manage their groups and facilitate discussion (MS3-9). Older lecturers find them too complicated (ML2-3). However, some lecturers feel they should accept change and collaborate online for the good of their students (C9-2), but they would like more training, and for this training to cover age, culture, gender and attitude-related issues (ML3-3). Female lecturers have little time to learn all this (ML3-2).

Leaders do not see awareness or attitude as a problem (C1-5), and they say that lecturers do not even attend other lectures in which new ideas are introduced (ML3-4), and they think the university-provided resources are sufficient, so lecturers do not have to rely on SMP tools except for communication (C10-3). If lecturer-student collaboration is to take

place, it would therefore require a change in the leaders' attitude and acceptance of the role of social media in education (C9-3).

On the other hand, lecturers feel they are not being heard on involving social media in the curriculum (ML4-1). Leaders resist hearing them so lecturer input is limited for being in charge (C9-1). They have no voice to decide on things like working hours, so they end up having to work more (ML4-3). They would prefer, for example, to limit the lecture time because they accept the usefulness of SMPs (ML4-5), and to transform seminars to online because SMPs can facilitate better discussion (ML4-6).

However, they also acknowledge that online communication and discussion requires a lot of resources (C6-1). Lecturers encourage their students to read from a variety of online sources but verifying the accuracy of those sources is challenging (C6-3). Sources in English is another challenge for students, as it takes extra time to understand them (C6-5). The students prefer that their lecturers check especially the online video resources before exchanging them online (C6-6) to make these tasks easier for them.

Some students lack appreciation or friendliness and even mock others online (C3-2). Those that do this mocking online think lecturers can learn better like this (C3-14). Female students, especially conservative ones, feel vulnerable online and take time to develop trust (MS3-6). They would be more willing to exchange information and engage in discussions if a safe zone is created (MS3-4). Users would feel more protected if engagement rules are devised (MS3-2). Otherwise, leaders and lecturers resort to using logic and common sense in their absence (C3-16). Having presented and discussed the findings, the next chapter revisits the study as a whole to conclude it along with drawing implications and making recommendations.

CHAPTER 7: Conclusion

7.1 Overview of the Study

An investigation was conducted to explore the perceptions and experiences of lecturers primarily as well as those of academic leaders and students on the potential impact of utilising social media technologies in the teaching and learning process. For this reason, Taibah University in Madinah was the selected higher education institution in Saudi Arabia (see section 2.10). Specifically, the study attempted to identify the main features of Saudi HE in terms of its context and culture as relevant to adopting social media technologies that support teaching and learning; to understand how they are used in HE institutions in general, and Saudi Arabia in particular to support teaching and learning; to examine the nature of teaching and learning pedagogy in Saudi HE, and to investigate the perceptions, primarily of lecturers, on their use at the selected Saudi university, and as corroborated by those of academic leaders and students. The aforementioned were specified as the four objectives of the study for which research questions were devised accordingly to guide the research.

Pertinent aspects of the Saudi context of the study were described in the second chapter. It covered educational trends, the growth of the education sector, the potential for social media technologies, education in Vision 2030; the role of ICT, distance learning and social media in Saudi HE; social media usage in Saudi universities, and the role of lecturers, academic leaders, and students. Three points may be noted, one each on the aforementioned roles. Firstly, Devine (2015) also noted a difference between younger and 'experienced' older lecturers in terms of acceptance of SM in education, as found in the present study. Secondly, the low adoption of SM in Saudi Arabia was attributed by Van Den Beemt et al. (2019) to organisational limitations. Such limitations were also uncovered in the present study (see 6.6.3). Thirdly, as may be expected, and as confirmed in the present study as well (see section 6.4), Malik et al. (2019) found increased use of SM led to greater motivation and engagement in class.

The research process followed an inductive approach to analyse the qualitative data gathered from the three groups of participants (lecturers, academic leaders, and students) between mid-September and mid-December 2019, under the philosophical paradigm of interpretivism. Semi-structured interviews were conducted with the aforementioned groups to allow the interviewees to respond freely to express their views and describe their experiences. The students were all Bachelor level students aged 18-25, who along

with academic leaders were selected purposively, but some of their lecturers (aged 35-50) also supervise at the master's level, who were selected using the strategy of snowball sampling. The students were interviewed together in focus group sessions after first interviewing their lecturers and then academic leaders individually. A total of 21 interviews were held with lecturers from different faculties and departments, of which 13 were male and 7 female lecturers with an average of 10.75 years of experience, and 7 further interviews were held with academic leaders, of which 4 were male and 3 were female. The useful data comprised 20 data sets from lecturers and 7 from the leaders. In the next phase, this data was complemented by data from 2 male focus group sessions and 2 female groups comprising a total of 25 students.

The obtained data was subjected to thematic analysis. Trustworthiness of the data was maintained by ensuring consistency (dependability), credibility, neutrality and impartiality (confirmability), as detailed in section 4.8, and some transferability as well by clarifying assumptions and the nature of the research context. The entire methodological process was designed to achieve the objectives of the study.

7.2 Revisiting the Objectives of the Study

All four of the above-mentioned objectives of the study were achieved satisfactorily, and the corresponding research questions were answered as well. The objectives were originally specified in the introduction chapter, in section 1.5. They are revisited below to point out how they were achieved, and where in the paper the research findings that address them directly may be found.

7.2.1 First objective: Identification of main features of Saudi HE

The first objective was to identify the main features of Saudi HE with respect to culture that support teaching and learning. The main features of Saudi HE relevant to the study were covered in Chapter 2 in which an outline was given of the research context, including the HE system in Saudi Arabia. The adoption of SM technologies is supported by such cultural aspects as openness to follow educational trends, the drive toward a knowledge-based economy, and finding ways to overcome the barrier of gender segregation. Changes such as growth of the education sector, advancing the country technologically, globalisation, and modernisation are also facilitating its adoption.

As mentioned in section 2.5.2, there is a great potential for SM technologies in the Saudi HE sectors, which is following the global trend of innovation in educational practices with an emphasis on digital learning (Alzamanan, 2017). Importantly, it is also in line

with the kingdom's transformation to a knowledge-based economy to achieve its Vision 2030, and the increasing focus on involving ICT in education (Alzahrani, 2017). In particular, SM satisfies the criteria of the Saudi National Transition 2020 Plan of the MoE for universities to pursue a policy that actively encourages faculty members to employ technology as a means to facilitate teaching and learning (see section 2.6.2).

Moreover, it is satisfying the need to allow students of both genders to interact and communicate with each other to mutually support their learning in a convenient way than is possible otherwise in the conservative society. This makes SM an ideal platform in Saudi HE, especially the features noted in the primary research, such as Saudi students being challenge in learning English (5.3.2.3), and when communicating with the opposite gender (5.3.5). These features of Saudi HE are undergoing changes due to the increasing use of SM, which was discussed in section 6.7.4.

7.2.2 Second objective: Understanding how SM technologies are used

The second objective was to understand how SM technologies are used in HE institutions generally, and in Saudi HE in particular, in ways that support teaching and learning. The utilisation of SM technologies in Saudi HE was explored earlier in section 2.8, including in terms of the role of lecturers, academic leaders and students. Their use was then examined in section 3.3 with examples from various universities around the world. This was followed by more detailed examination of how they are used specifically by lecturers (3.3.2), course and curriculum designers (3.3.3), the fields of learning in which they are used predominantly, which were found to be language learning and medical science (3.3.4), and their use by students (3.3.5).

Students use these technologies to supplement the knowledge gained from their lectures (Ruggieri, 2020). More frequent usage was noted around exam preparation times (Hautala, 2019), which was confirmed in the present study (B3-7), and also when the students have assignments to be done (C3-8). The more common use by shy students (Fitzgerald et al., 2018) was also confirmed by the data gathered at the selected university (MS2-7) and is highlighted as an important finding in the studies of Voorn & Kommers (2013) and Malik et al. (2019). However, it was noted among other concerns that their increased use has also led to concerns over the quality of information (Kortemeyer & Droschler, 2021), which brought into consideration the extent to which they should be used in education. The areas in which SMPs may be usefully promoted in Saudi HE were discussed in section 6.7.4.3, which includes engaging students who are otherwise silent in class.

The adoption of SMP's by lecturers and course/curriculum designers is promising as well because it shows confidence in their use more formally, and it is an indication of a possible future trend where SM technologies are utilised thoroughly to support teaching and learning. It was acknowledged that making this possible does have issues, as pointed out by Van Den Beemt et al. (2019), which were discussed under the key findings in Table 6.11, but doing so could help to realise the several benefits (see 6.3) of using SM in education.

It was noted that some lecturers make special time available to communicate with their students through SM (Ademiluyi & Ademiluyi, 2020). More insight into how SM technologies are being used in Saudi HE was gained from the primary research findings. The present study showed some also use SMPs outside of their office hours due to their benefits (ML5-10), and some dedicate special hours for female students (C4-3) because it allows them to reach out to those who would not normally visit them in person (C5-6). Furthermore, the present study corroborates those previous studies (Wahila et al., 2018 and Cheng et al., 2020 among several others – see 3.5.1.3) which showed how SM is being used in HE to motivate and encourage students, given that students tend to be more active and engaged when using SM (see 6.4). Another creative way in which SMPs or technologies are being used in Saudi HE, based on the primary research findings, is in translating, making and distributing educational videos in English (see 6.7.4.2).

7.2.3 Third objective: Nature of teaching and learning pedagogy

The third objective was to examine the nature of teaching and learning pedagogy in Saudi HE. A brief overview of the HE system in Saudi Arabia was given in section 2.4, and in section 2.7, it was noted that ICT is playing an increased role in the kingdom (Alzahrani, 2017). Consequently, LMS's are common in Saudi universities, the most popular being Blackboard (Alenezi, 2018). Distance learning (Alzamanan, 2017) and the use of social media are also becoming increasingly popular. The latter was confirmed by Alasfor (2016) and Albalaw (2017) among others, as well as the present study. The adoption of SM technologies, however, is not without problems. Aldosemani et al. (2019) noted cultural changes, instructional design issues, and inadequate expertise of faculty, which all hinder their integration. Other related challenges were noted in section 2.9. Further pedagogical benefits and implications from the literature were examined in section 3.5.2.4 for HE in general, and pedagogical approaches in 3.5.2.5. It was noted, for example, that WhatsApp is the predominant SMP in Saudi Arabia among others (Agarwal & Alrowaili,

2020), but studies on the pedagogic use of such tools are new considerations in the Arab world compared to western contexts.

Importantly, the incorporation of SM technologies in teaching and learning pedagogy could only be justified if it has value in supporting teaching and learning. Pedagogical issues related to learning based on previous literature were examined in section 3.5.3.4. For instance, Ahmad (2020) highlighted the problem of unreliable sources, and McGrew et al. (2018) emphasised the need to teach students how to evaluate their quality. Unreliable sources are therefore something identified in the literature as important to beware of (Ahmad, 2020) as possible pedagogical, social and cultural drawbacks if relying too much on SM (see 3.5.3.3 and 3.5.3.4), to which distraction (Alshehri & Lally, 2019), and misuse (Alkhatnai, 2019) may also be added among others.

During the primary research, various benefits relating to teaching and learning pedagogy that emerged from the data gathered were highlighted in section 5.3.2 and discussed in section 6.7.4.2, and the same for relevant challenges or issues in sections 5.6, which were discussed in 6.6 and 6.7.4.4. The view of some hopeful lecturers deserves to be highlighted as a recommendation for the way forward with using SM in Saudi HE when they said that lecturers should accept the changes being brought about by SM for the sake of its benefits to students (C9-2).

7.2.4 Fourth objective: Perceptions of lecturers, academic leaders and students on the use of SM technologies

The fourth objective was to investigate the perceptions, primarily of lecturers, on the use of SM technologies and platforms at a selected Saudi university, as well as those of academic leaders and students. This was the main focus of the whole study. The Saudi HE institution selected for achieving this objective was Taibah University in Madinah, Saudi Arabia. A brief background of this university was given in section 2.10, which included elaboration of its vision and mission, academic programmes and degrees, and its governance and education system. Of those that could be relevant to adopting or supporting SMPs, are its mission to contribute to social development and promote a knowledge-based economy and promoting excellence in teaching and learning. Currently, the university is committed towards helping to realise the kingdom's Vision 2030, and the educational aspects of the National Transformation Plan 2020 for upgrading the quality of education. Also, as SM was already being used at the university, it made it a suitable candidate for conducting this study.

The methodology adopted for the primary research arranged especially for this objective was detailed in Chapter 5. As noted in sections 4.2.4, 4.3.2, given that this research had to gather perceptions, views and experiences of people, and the need for explaining a socially constructed phenomenon (of SM use in education), it was considered appropriate to adopt a qualitative research design guided by the paradigm of interpretivism. This epistemological position was justified in section 4.2.3. Reflections on this methodology are expressed in 7.4.4 further on.

Perceptions and experiences of social media users in education for supporting both teaching and learning processes were examined thoroughly based on previous literature in Chapter 3, but particularly in section 3.6. This section focused specifically on the perceptions and experiences of using social media in higher education. They were considered separately for students and teachers or lecturers (in sections 3.6.1 and 3.6.2). Given the predominance of SM usage in two specific fields, experiences in these fields (education and medical education) were examined as well (in section 3.6.3) before covering the specific context of SM in Saudi HE (in section 3.6.4). In general, studies have shown that students perceive SM positively, whereas the perceptions of teachers and lecturers is more mixed along the line of age. Generally, the perceptions of younger lecturers are more in line with those of students, but those of older lecturers are not, as they perceive SM more negatively (see section 7.3.1 further below). As for experiences, these are similar for all users, including students and lecturers, but based along the line of gender with female users generally having more negative experiences compared to male users.

7.3 Other Key Findings and Contributions

The thematic data analysis led to identifying five overarching areas or dimensions: (1) general social media use, (2) benefits of SM in education, (3-4) motivation and encouragement to use SM for students and the same for lecturers, and (5) challenges in applying SM in education (see Table 5.1). The data were then categorised into 28 themes, and several sub-themes were distinguished under each of them. The findings were presented in Chapter 6 organised around these themes and sub-themes.

7.3.1 Key findings

A synthesised presentation of the key findings of this research was given in section 6.7, and by comparing the responses of the three groups of participants (lecturers, academic leaders, and students), shared and differing perceptions were also revealed between them

(see 6.7.1). Some show points of agreement or harmony, while others show points of disagreement or tension.

Among the notable findings, excluding original findings highlighted separately below, are that both lecturers and students acknowledge the potential of SMPs to provide supportive resources and differing perspectives, and are especially encouraged by the opportunities for questioning and discussions. Furthermore, students gain in confidence and improve their interpersonal skills while lecturers can reach their students. However, lecturers also acknowledged the need for more training of lectures to use SMPs, and they are concerned with the quality of information available online. More concerning are the few cases of misuse among both groups, which is a concern for their academic leaders as well.

The main points of tension found in this study relate to the factors of age, gender, time, and control.

- Age - Whereas most students and younger lectures prefer using SM or are receptive to it or supportive of it (ML2-1), and competent in using it, many older lecturers and leaders prefer traditional methods instead, and are content with the existing arrangement where the Blackboard LMS is provided for students. This is corroborated, for example, by Kapidzic (2018). Also, younger lecturers feel the curriculum needs updating, but older ones are not in favour of such a change (ML4-2). Some more points of contention summarised in Table 6.28 made it necessary to distinguish between younger lecturers on one hand, and older lecturers and leaders (who are themselves formerly older lecturers) on the other.
- Gender – Female students and lecturers expressed the most concerns over privacy and safety in using SMPs, the lack of engagement rules, and had experienced more case of misuse than males. Another gender-related issue is mixed-gender communication, which students are comfortable with, but it is of concern to older lecturers and leaders accustomed to conservative social values.
- Time – Although some lecturers make time available for their students to contact them through SMPs, some students contact them at inconvenient times, especially at the time of assignments and exams.
- Control – Whereas lecturers would prefer to be in charge if they are compelled to use SMPs, leaders are not in favour of this. The leaders resist hearing the lecturers

and are generally resistant to formalising the use of SMPs as well because they see more potential problems than benefits.

The tension around timing and the concerns over privacy and safety show the need for better regulation of SMPs in universities. It may be noted that one justification given for leaders preferring that students use Blackboard instead of an SMP, is that it provides a help system, privacy and protection (C11-2), which are lacking in SM technologies. The leaders see SM as an easier option with greater risks, although they are also compelled by university policy (ML5-12). However, students and younger lecturers see more benefits overall, such as the numerous key benefits found that were noted in section 6.3.

Each key finding made in the study was compared with the literature examined in Chapter 3 to find out if the same had been made before, or if it contradicted any of them. Corroborations and contradictions were noted in the tables presented on key findings in Chapter 7 organised around the themes. One promising finding in the present study is that SM helps develop authentic relationships and makes students feel important (B3-4), although it contradicts Alshahrani et al.'s (2017) finding that it creates gaps in relationships. This benefit is presumably because the learning is more student-centred, and the students are more in control of their own learning. Other notable contradictions were mentioned in section 6.7.3. Another promising finding is that the development of SM technologies appears to have reached the stage where they are enabling students to learn better online (MS4-9). These two findings are examples of prime benefits of utilising SM technologies in education, the first a personal/social benefit and the second an academic benefit. They confirm the findings made earlier in previous studies, for example, by Ansari et al. (2020) and Lahiry et al. (2019), respectively.

Many more benefits were revealed by the collected data and noted under the second area of themes on SM benefits (see section 5.3). For instance, besides the social benefit in terms of enhanced relationships, improved discussions, motivation and engagement were also noted (B3-4, B3-7), and besides the personal benefit of self-esteem, it was noted that SM provides a more inclusive environment and thereby helps students gain more confidence and overcome shyness (theme B4). The latter is noteworthy because it is one group that can benefit the most from using SM to support learning (see section 6.3.3 under Table 6.6).

7.3.2 Original findings

The findings original to this study, which were not found elsewhere in existing literature, were pointed out in the discussion chapter, in the third part of each section 6.2 to 6.6, and the key ones were highlighted in section 6.7, along with a synthesis of key findings of the research and reiterated earlier in this chapter. Besides the age-related findings showing a point of contention between younger and older lecturers (see 6.7.2.1 and Table 6.28), and the gender-related findings (see 6.7.2.2 and Table 6.29), which have already been reiterated above, several new findings, which constitute a main contribution of the present study, were discussed in section 6.7.4. They were grouped in the discussion under 'Use of SM for learning, attitudes and perceptions' (6.7.4.1), 'Benefits of using SM in HE' (6.7.4.2), 'Promoting the use of SMPs' (6.7.4.3), and 'Challenges and concerns' (6.7.4.4). Among the main contributions of this study are those original findings highlighted below that have implications if the use of SM technologies is to be promoted in Saudi HE.

7.3.2.1 Use of SM for learning, attitudes and perceptions

Some lecturers are more confident in using SMPs compared to Blackboard (C7-1), and some students only use it to download lectures and submit their work (C7-2). These findings are in favour of adopting SMPs overusing the Blackboard LMS. However, leaders perceive this differently. They think SMPs are only preferred as an easier option, pointed out that Blackboard offers the same and more in terms of help, privacy and protection (C11-2), and also expressed concern over issues with SM, such as from communicating privately (C4-3) and need for integrating SM (ML2-5). If SMPs were part of the curriculum, then more lecturers would adopt them (ML5-2), older ones may be encouraged to do the same if there was a reward scheme (ML5-13), and leaders would only be more in favour of SM if there was university policy in place (ML5-12).

7.3.2.2 Benefits of using SM in Saudi HE

Educational videos help students to understand their learning material from different perspectives (G2-9), and understand topics better (MS2-3), which for some is more than they would otherwise learn from books and lectures (B2-11). Furthermore, it allows them to engage in questioning and discussions (B2-9). Students are made more active when helping their lecturers create online links (MS1-4), and they feel better when their lecturers have an online presence and are themselves engaged in using SM (MS1-5). For lecturers, SM allows them to reach the whole group of students together (MS2-6).

7.3.2.3 Promoting SMP use

Promoting the use of SMPs could help motivate students more in their studies (MS4-2). If the students are assessed, they would be more engaged (MS4-3). Lecturers, however, hardly make themselves available online (C5-10), and when they do, some students take it for granted.

7.3.2.4 Challenges and concerns

Lecturers: Lecturers tend to need support from students to manage their SMPs because they find it hard to maintain on their own (MS3-8), including some younger ones (MS3-9), which shows the lecturers need more training (ML3-3). When their students use SM, however, lecturers are concerned with the quality of online sources they access (C6-3) and when students have to understand material in English (C6-5).

Leaders: To make leaders more accepting and supportive of using SMPs would require changing their attitude (C9-3) and making them listen more to what lecturers need or have to say (C9-1), such as integrating SM in the curriculum (ML4-1).

Students: Technical barriers to using SMPs are still a concern for students at the selected institution, such as internet availability in rural areas (C8-3; C8-4). However, students using SMPs experience problems of mocking (C3-2), and especially females ones feel vulnerable (MS3-6), which point to the need for online engagement rules (MS3-2).

7.4 Implications and Reflections

7.4.1 Implications for lecturers in HE

The adoption of SM technologies is changing the role of lecturers from the traditional one where they were central sources and the only imparters of knowledge for students to one where they are now facilitators of learning. Kerr (2016) notes this influence on teachers' role and teaching methods as a key area in which the Saudi education system as a whole is undergoing a transformation. With SM, the decision-making role is centralised around technology-based teaching, which is indeed a radical transition as was pointed out by Algami and Male (2014). However, the need they highlighted for convincing educators of the benefits of adopting SM technologies is one that persists to this day. The present study showed that although many younger lecturers are receptive to these technologies, some older ones remain unconvinced (see 5.6.2.2 and 5.6.10). This confirms what Mardiana (2020) too noted and highlights the issue of age differences between lecturers again, and the potential for contention between the younger and older lecturers. With their greater experience and wisdom, it may be that older lecturers perceive more potential

issues than benefits if SM is used widely in education, as suggested by Talukder et al. (2020). However, some of these issues can be dealt with easily. For example, the issue of variable quality of online sources (C6-3) can be dealt with by taking the time to identify acceptable quality sources and making a digital library collection of them available for the students, as was discussed under Table 6.22 in Chapter 7. In Table 7.1 below, a number of further implications are drawn for lecturers based on original findings on their perceptions and experiences in using SM in education. It is also the case that not all lecturers make themselves available online. This situation would have to change if SMPs are to be promoted, by encouraging all of them to use SM, although the data shows some would need training to make them able to use it effectively.

Table 7.1: Implications of the original findings based on lecturer perceptions and experiences

Finding (original)	Code	Implication/Recommendation
SM enables lecturers to reach all their students together.	MS2-6	Supports the need to promote SMPs.
Lecturers are more confident in using SMPs than Blackboard.	C7-1	Supports the need to promote SMPs
Some lecturers don't adopt SM unless it was part of the curriculum.	ML5-2	Quality
Older lecturers are inhibited by the absence of a reward scheme.	ML5-13	Older lecturers could be encouraged to use SMPs by a reward scheme.
Not all lecturers make themselves available online (which would benefit students if they did).	C5-10	If SMPs are to be promoted, then lecturers need to be encouraged/instructed making themselves available online.
Some lecturers need help from their students because SM is hard to manage on their own.	MS3-8/9	Shows the need for more training (ML3-3), or opportunities for students to help their lecturers.
Lecturers are concerned with the quality of online sources.	C6-3	See the discussion under Table 6.22; shows the need for identifying quality resources and maintaining a digital library.

7.4.2 Implications for students in HE

As this study investigated the perceptions and experiences of students at the selected university alongside the insights of lecturers and academic leaders. Table 7.2 below, demonstrates several implications drawn based on the findings identified as original to this study pertaining to students' perceptions and experiences. Four of these (MS4-2, MS4-3, MS1-5, B2-9) support the need for promoting SMPs in HE, as also supported by several other non-original findings which confirm previous studies (see section 6.7.4.3).

The various benefits highlighted in this study (discussed in section 6.3) suggest there is great scope for supporting SMPs in Saudi HE in terms of potential benefits to be gained by students. If universities formally support SMPs, this will consolidate their role in education, and help to realise the many benefits. Additionally, however, it would be necessary, for instance, to provide extra support in English for those students who need it, and to devise engagement rules to deal with potential issues.

Table 7.2: Implications of the original findings based on student perceptions and experiences

Finding (original)	Code	Implication/Recommendation
Students are more motivated when using SMPs.	MS4-2	Supports the need for promoting SMPs in HE.
Students are more engaged if assessed through SM.	MS4-3	Supports the need for promoting SMPs in HE.
Students feel better when their lecturers have an online presence.	MS1-5	Supports the need for promoting SMPs in HE.
SM allows students to engage more in questioning and discussions.	B2-9	Supports the need for promoting SMPs; Shows usefulness of SMPs particularly for supporting questioning and holding academic discussions.
Students are more active when helping their lecturers in using SM.	MS1-4	Supports using SMPs; shows scope for lecturer-student cooperation.
Students benefit particularly from educational videos.	G2-6; MS2-3; B2-11	Universities should formally support educational videos through SM.
Students in rural areas face internet availability issues.	C8-3/4	The state should do more to improve internet availability in rural areas.
Some students struggle to understand material in English.	C6-5	Shows the need for extra support in English if SM is to be used widely.
Some students mock others online or make others feel vulnerable.	C3-2; MS3-6	Online engagement rules are needed. (MS3-2)

It is noteworthy that the use of SM technologies in countries like Saudi Arabia is challenging the tradition of gender segregation in education. That is, they enable to overcome this barrier and are thereby setting a new cultural trend, as they allow for students of both genders to interact and communicate with one another without being present together physically. The ease of communication they offer is a key factor in their popular uptake among Saudi students (Yusuf et al., 2016). However, they are also presenting difficulties because of the collectivist nature of Saudi culture in which not all students are accustomed to learning independently and creatively, although this too is undergoing a cultural transformation with Saudi society becoming more open than in the past. This makes SM-based learning ideal to propel the above-mentioned changes.

7.4.3 Implications for universities and policy-makers

The use of SMP's at the selected institution was mixed in that there is no formal requirement to use them, and while some lecturers and students do use them, there are also some that do not. A chasm was noted between universities and academic leaders at the selected university who advocate using the default LMS of Blackboard, which incorporates some communication and collaboration tools, and most lecturers and students who prefer to use Blackboard in only a limited way and use SMP's instead for interacting, teaching and learning (C7-2). This is something that the universities should investigate to find out lecturer and student preferences, as to which tools they would like to use, the suitability and scope of adopting SMPs and technologies formally, and if found practicable, how best to incorporate them. Otherwise, the present situation reflects what Allmnakrah and Evers (2020) noted that university faculties in Saudi Arabia make little use of such tools. If the Saudi education system is to make progress toward achieving its plans and visions that require utilising modern technologies, then this position would need to be reconsidered.

Issues such as bureaucracy and inconsistency in curricula were uncovered in the survey of Saudi culture in section 2.8. The need for updating the curriculum to integrate SM was expressed in the present study as well (ML4-2), especially among younger lecturers, and if this inclusion and integration is achieved, it would make more lecturers utilise SMPs to support their teaching (ML5-2). The implication of this is that universities and policymakers can promote SMPs hugely by first accepting its role in education formally and integrating this role in the curricula. In addition, importantly for the safety of both lecturers and students online, the present study uncovered a number of concerns and problems faced while using SM. It is imperative that universities and policymakers take note of them and implement measures to address them. The issue of privacy violations (ML2-4; C3-6 to 9) for example, can be addressed by devising policies to govern online conduct while using SM for educational purposes. Implications that are more important are drawn in Table 7.3 below based on original findings of the perceptions and experiences of academic leaders.

Table 7.3: Implications of the original findings based on leader perceptions and experiences

Finding (original)	Code	Implication/Recommendation
SMPs lack the same privacy and protection offered by Blackboard.	C7-1	Different SMPs should be checked to appoint one that is secure and suitable.
Leaders are concerned over (insecure) private communications on SM.	C4-3	Ditto
Absence of a university policy makes leaders reluctant to be in favour of using SM.	ML5-12	Shows the need for official university policy to support SMPs.
Leaders' attitudes would have to be changed to convince them of adopting SM.	C9-3	Shows the need to evaluate the feasibility of using SMPs in HE and raising awareness of their benefits to leaders.
Not all leaders listen to what lecturers have to say.	C9-1	Arrangements need to be set in place to allow lecturers to voice their concerns.

7.4.4 Reflections on the methodology

The gathering of qualitative data through conducting semi-structured interviews and focus-group sessions, and the adoption of an inductive approach under the paradigm of interpretivism, was an appropriate methodology to follow in this study. The decision to interview the lecturers first was also right because firstly, the lecturers were the primary focus of the study, and secondly, while collecting the data from the leaders and students, it made it possible to refer to what a lecturer had said to gain clarification or corroboration, or to prompt the latter to explain why their perceptions differed. For instance, when some lecturers had expressed lack of awareness of the usefulness of SMPs, and students were expounding on their benefits, this gave the researcher the opportunity to question the students on whether they are certain of or have experienced those benefits since their lecturers have denied the possibility.

The semi-structured format allowed for this kind of flexibility in questioning. Although the topics of the interview questions were specified beforehand, all participants were able to express themselves freely, and add more pertinent details. The focus-group sessions were also an ideal arrangement because they gave the student participants confidence to speak and extend the discussions. The students were eager to add their own personal contributions. Moreover, the qualitative nature of the data gathered from both the interviews and focus-groups were rich and detailed enough to provide the desired insight into the participants' perceptions and experiences. The adoption of an overall inductive approach was necessary because there were no preconceived ideas or theories to begin

with, as explained in section 4.2.4. The picture of lecturers' perceptions and impact of utilising social media at the selected institution was formed purely from the data collected. This was then interpreted to provide a coherent and insightful impression of the phenomenon studied, which was then compared between the three groups of participants and with previously conducted research from existing literature.

7.5 Limitations and Recommendations

7.5.1 Research delimitations and limitations

The research was confined to a single Saudi university situated in the Kingdom of Saudi Arabia, namely Taibah University in Madinah, as it was necessary for a focused study. It was also delimited by including only lecturers, academic leaders, and students, which means the university administration, parents or other related groups were not included. The primary focus, as per objective four, was on gathering the views and perceptions of lecturers, which were then compared with those of academic leaders and students.

Although the qualitative nature of this study does not make the findings generalisable to other Saudi HE institutions, as noted in section 4.6.1, there is scope for transferability (see section 4.8.2). This is possible due to some conceptual similarities, as described by Cohen et al. (2017), of the context investigated (Taibah University) with those of other universities in Saudi Arabia. The findings of the present study are not therefore solely limited to the investigated context. Where similar context exists elsewhere in the kingdom, it is possible for some findings to be applicable to them as well.

7.5.2 Recommendations for further research

Based on the original and new findings and contribution of the present study to the literature, the following recommendations are made for areas in which further research may be useful:

- An investigation of views, perceptions, and attitudes of lecturers toward the adoption of social media in Saudi universities based on age and length of teaching experience. Initially, lecturers were treated as a single group, but the data in the present study made it necessary to distinguish between younger and older lecturers because of the differences between them (see 6.7.2.1). Such an investigation could confirm these and reveal more differences between younger and older lecturers and unravel the reasons behind them. It might also show which lecturer characteristics would be supportive for students using social media for learning.

- An investigation into issues faced by female users of social media in higher education. This research would focus on the difficulties and problems experienced by female lecturers and students while using social media to support their teaching and learning and finding ways to deal with them. Several female lecturers and students were found to have experienced more cases of safety concerns (MS3-3; C3-17), vulnerability (MS3-6), trauma (C3-3), and invasion of privacy (ML2-4; C3-9; C4-5) compared to males. This makes it important to investigate these issues to help resolve them.
- An investigation into the impact of using social media on mixed-gender communication and interaction in online education. The present study showed social media use in enabling more open communication and interaction in educational settings between male and female students, which is not the norm in F2F situations in the highly conservative environment of Saudi Arabia. Mixed-gender interaction and communication online may be facilitating mutual learning, but is also causing some safety concerns for females, and is raising some concerns among older lecturers worried about the social change (C4-6). An investigation could shed more light on this social change to show how SM in education is overcoming this barrier and setting a new norm in Saudi society.
- An exploration of SM use in higher education across different faculties. The literature review (see section 3.3.4) and the primary research findings (B2-13/14) both confirmed the potential of SM in improving English language skills. The literature review also showed it is commonly used in medical education, which suggests the technologies are being used to different extents in different faculties. This research might confirm this discrepancy and reveal the underlying reasons to show why they suit being employed in certain fields of learning but not others.
- An examination of attempts to integrate the use of social media in HE curricula. Research along this line could reveal several different ways in which these attempts have been made, uncover which ones are proving successful, and lead to explaining why others are deficient. This could be useful to show how best to integrate SMPs in HE.
- A quantitative study to measure the effectiveness of using SMPs in terms of their impact on students' academic performance outcomes. This could corroborate, for example, the study by Sobaih et al. (2016) (see section 1.2) conducted in Egypt

for the Saudi context, and support the claims of other similar studies claiming learning and academic benefits that were examined in section 3.5.2.2.

- Finally, an investigation into the impacts of Coronavirus pandemic on Saudi HE. It is essential to note that this research's data collection and analysis was conducted before the start of Coronavirus. Otherwise, it could have taken a different turn and yielded enriched data had it been done during this pandemic. This is because the HE around the world generally and Saudi particularly moved its learning and teaching strategies from face to face to online classes due to the disease transmission. Likewise, citizens, businesses and organisations have used SM intensively as this virus caused management crises. It has also become a vital space for Saudi universities to update their students and spread the knowledge. Therefore, the researcher could not reconcentrate on this topic due to various limitations. First, the researcher was in the final stages of his PhD. Second, the coronavirus pandemic's impacts on travel were so massive that it was impossible to commute for data collection to add the impacts of this pandemic on HE in Saudi. Lastly, the Saudi government implemented strict measures for social distancing which were challenging.

In the end, it is apparent that Saudi Arabia is entering a new historical stage characterized by the interconnectedness and interdependency of societies and by new levels of complexity, uncertainty, and tensions. Still, the changes taking place have implications for education and signal the emergence of a new phase for learning and teaching. As it does not serve the current needs well, the Saudi higher education system requires not only new practices, but also new perspectives from which to understand the nature of learning and the role of teaching. Therefore, in light of this rapidly changing reality, it is time that the government rethinks the normative principles that guide the educational systems by benefiting from SM platforms in achieving the quality of the educational process and enhancing their role in building and supporting positive experiences of lectures, academic leaders and students, especially that SM platforms in academic institutions allow teachers to interact with their students, keep academic leaders aware of educational development and help students access their course contents, customise and build students communities.

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APPENDICES

Appendix A - Breakdown of Samples

Sample of lecturers

Table A.1: List of lecturers interviewed in this study

School	Gender	Number of Lecturers	Experience
School of Computer Science.	male/female	1Male/1Female	7yers/5yers
School of Education	Male/Female	2M/2F	10y/22y/15y/8y
School of Engineering	Male	1	12y
School of Science	M/F	2M/1F	8y/14y/20y
School of Arts	M/F	1M/1F	15y/7y
School of Nursing	F	1F	14y
School of Community services	M/F	2M/1F	4y/6y/7y
School of Law	M	1M	9y
School of Medicine	M/F	1M/1F	10y/13y
School of Pharmacy	M/F	3M	12y/5y/8y

Sample of academic leaders

Table A.2: List of academic leaders interviewed in this study

Position	Gender
Vice chancellor for Development and Quality	Male
Dean of Pharmacy College	Male
Dean of Foundation Years	Male
Head of Teaching Methods Department	Male
Vice Dean of Society College	Female
Vice Dean for Development and Quality	Female
Head of Educational Technology Department	Female

Sample of students in the focus groups

Table A.3: List of the focus group samples

Group Number	Subject	Gender
Group One	school of Arts and Humanities-/5 students.	Male
Group Two	School of Business and Computer Science. /7 students	Male
Group Three	Medical school/ 7 students	Female
Group Four	School of Computer Science/6 students	Female

Appendix B - Lecturer Interview Questions

Interview Protocol Worksheet

Study Topic: Perceptions of Saudi Educators toward Utilising Social Media in Higher Education.

1 Introduction

- ☐ Thank you for coming today
- ☐ The purpose of today's study is to understand and investigate Saudi Educators perception as learning tools. In Saudi Arabia, there is considerable enthusiasm about social media and a high expectation that it will improve learning, teaching and academic performance. However, there is no hard evidence to back up these perceptions. I will conduct this study in Saudi Arabia in city of Al Madinah on Taibah University. The aim of this study is investigating lecturers' perception of the potential impact of utilising SM in the learning and teaching process in higher education in Saudi Arabia.

2 Informed Consent Form

Key points must be stated and explained thoroughly:

- The purpose of the study
 - Under no circumstances, your identity will not be revealed or linked to your responses in any way.
 - The data collected will remain confidential and only the research team members will have access.
 - You have the right to withdraw from the study at any time.
- ☐ *PAUSE: Ask if participant has any questions or concerns*
- If none:
 - Please Sign
 - Ensure Participant Retains A Copy

3 Permission to record the session (☐ YES / ☐ NO)

- ☐ Only researcher team members will access audio-recordings.
- ☐ We will use descriptors rather than names in the transcripts.
- ☐ As we reflect on what you've shared, summarize it, and report it, we will never-ever share information that would allow you to be identified.

4 Before starting the interview make sure to highlight that:

- ☐ All ideas are equally valid
- ☐ There are no right or wrong answers - we are interested in your story, views, and experience
- ☐ Everyone's views should be heard and respected
- ☐ ONE MORE TIME any questions or concerns?

Demographic Information

Years of Experiences: _____.

Date/Time: _____.

Your Academic Degree: _____

Your content area
_____.

Interview Questions

- 1 Do you use social media tools? For what purposes are you using them?
- 2 Can you give examples of social media that you are using?
- 3 What is your experience of using social media in teaching and learning?
- 4 Are you using and incorporating social media into your teaching approach? Please give more details.
- 5 From your point of view, what can encourage educators to use social media as a teaching and learning tool?
- 6 In your opinion, what is the role of using social media for learning purposes?
- 7 How can the educator develop her or his personal learning about social media?
- 8 How can educators use SM effectively in their teaching methods to improve students' learning?
- 9 From your point of view, how can you as educator help and encourage your students to utilize social media effectively to enhance their learning?
- 10 Can you suggest some methods that help the educators to apply social media effectively into their teaching environments to help students support their learning?
- 11 From your point of view, what are the barriers that face Saudi educators when using social media as a learning tool?
- 12 In your opinion, what are the difficulties that face Saudi students when utilizing social media to enhance their learning?
- 13 Do you have any more comments or remarks that you would like to add?

5 Closing-up

- ☐ Thank you for your time
- ☐ Explain that a slight possibility for further clarification or information might arise, thus is it permissible to contact you in the future? (☐ YES / ☐ NO)

Appendix C - Academic Leader Interview Questions

Q1: Do you believe that social media can be used as a teaching aid to contribute to the educational process?

Q2: Do you believe using social media as an educational tool aligns with the university's educational culture?

Q3: What actions has the university taken to develop faculty members as professional educators?

Q4: What challenges do you believe academic leaders face in developing faculty members' skills related to employing social media in the educational process?

Q5: What challenges do you believe the university as a whole faces in incorporating modern technology, such as social communication platforms, into the educational process?

Appendix D - Focus Group Questions

Focus Group Interviews Questions

Group Size:	Year of Study Foundation Year 1 & 2 Year 3 & 4
Group School/ Field of Stud:	
Q1 Do you use social media? If so, for what purposes?	
Q2 Do you think that SM can improve your learning? If so, how?	
Q3 In your opinion which SM tools are better for learning purposes? If possible, please give an example?	
Q4 Which methods you prefer for learning: face-to-face, hybrid, or online courses? Why?	
Q5 What are the best SM platforms used for communication with your lecturer? Why?	
➤ Do you think SM platforms are effective compared to face-to-face? In which way?	
➤ Do you think SM platforms can replace face to face learning?	

Q6 What are your perceptions of using SM platforms in teaching and learning? Why?	
How? (benefits)	
Performance	Do you think using SM platforms with your lecturer will affect your study performance? Why or why not?
Engagement	Do you think using SM platforms will increase your participation with other classmates?
Collaborative Learning	<ul style="list-style-type: none"> Do you think using SM platforms helped you learn from others? Do you think using SM platforms increases your cooperation among your classmates?
Understanding & Knowledge	Do you think using SM platforms enables discussion with your classmates?

Challenges (Why?)	
Control	<ul style="list-style-type: none"> What are the challenges of using SM platforms in learning?
Cultural issues (Gender, Religion)	<ul style="list-style-type: none"> Do you think SM platforms implemented fit into Saudi society? Do you think SM platforms have brought about changes in Saudi culture in general and educational culture in particular? Why or why not?
Distance... superiority	<ul style="list-style-type: none"> To what extent SM platforms can eliminate the barriers between students and lecturer in learning? How?
Implementation (Policies, Environment & Resources)	<ul style="list-style-type: none"> As learners what do you need to use SM platforms to help you in the learning process?