The University of Hull

# Multimedia Approaches to Teaching Literature:

A study of the use of hypermedia in the teaching of English as a non-native literature in a number of Indian universities

being a Thesis submitted for the Degree of Doctor of Philosophy in the University of Hull

*by*

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Dedicated to

Shree Upendra Sharma & Shrimati Shanti Sharma
(my parents)

# CONTAINS DISKETTE

Chandra Bhushan Sharma

**Abstract**

**Multimedia Approaches to Teaching Literature:**
A study of the use of hypermedia in the teaching of English as a non-native literature in a number of Indian universities.

This thesis examines different facets of teaching non-native English literature to Indian students through the application of hypermedia. The main research question of the present thesis was 'Can hypermedia perform the dual purpose of ascertaining context and provide an approach for teaching English Literature to (Indian) students in India?'. The thesis approaches the question by beginning to answer why and how to teach English through hypermedia. Through a critique of the present text-based and machine-based approaches it suggests a standardised format and through interviews and reflective thinking it provides a structure of the content of hypermedia programmes.

English is considered important by Indian society but the means available for its teaching are inadequate. To provide the context for the main study it was necessary to examine the relevance and use of English in India. This question is followed by examining the possibility of teaching through hypermedia. The thesis has presented a survey of the technologies available in the Indian universities and of the promises national technological development makes for the future. The nation recognises the importance of educational technology and gives it a priority position.

The rapid advancement in multimedia technology needs feedback from two areas for its adoption in teaching. Multimedia technologists need to know from the media specialists the role and ratio each medium can play and the sequence media be placed in (if any) in multimedia programmes. Pedagogues need to pronounce their requirements. This thesis in spite of its limited scope and resources has tried to answer these questions. In teaching non-native English literature we need information on the social, cultural, historical, mythical and other related textual, pictorial and audio information in adaptable forms to make the reading of literature experiential.

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## List of Abbreviations

| | | |
|---|---|---|
| **ASCII** | : | American Standard Code for Information Exchange |
| **BASIC** | : | Beginner's All-purpose Symbolic Instruction Code |
| **BMP** | : | Bit Map |
| **C-DoT** | : | Centre for Development of Telematics |
| **CD** | : | Compact Disk |
| **CD-ROM** | : | Commodore Dynamic Total Vision |
| **CDTV** | : | Compact Disk Television |
| **CLASS** | : | Computer Literacy and Studies in Schools |
| **CMC** | : | Computer Maintenance Corporation |
| **COBOL** | : | Common Business Oriented Language |
| **DBMS** | : | Data Base Management System |
| **DoE** | : | Department of Electronics |
| **DOS** | : | Disk Operating System |
| **DTP** | : | Desk Top Publishing/Printing |
| **EMRC** | : | Educational Media Research Centre |
| **ERNET** | : | Educational and Research Community Network |
| **ET** | : | Educational Technology |
| **ftp site** | : | File Transfer Protocol site |
| **IBM PC** | : | International Business Machines Personal Computer |
| **IRIS** | : | Institute for Research in Information and Scholarship (Brown University, Providence USA) |
| **IT** | : | Information Technology |
| **ITS** | | Intelligent Tutoring System |
| **JANET** | : | Joint academic Network (UK) |
| **MB** | : | Mega Bytes |
| **OHP** | : | Overhead Projector |
| **OOP** | : | Object Oriented Programming |

| | | |
|---|---|---|
| **RAM** | : | Random Access Memory |
| **RTF** | : | Rich Text File |
| **SITE** | : | Satellite Instruction Television Programme |
| **SVGA** | : | Super Video Graphics Adapter |

| | | |
|---|---|---|
| “ ” | : | Denotes the text is from some source for which reference is mentioned above or below. |
| ‘ ’ | : | Denotes the text is a common saying or has become a cliche. |
| ' ' | : | Denotes emphasis. |
| " " | : | Denotes the text is taken from some text quoted but is used as a common saying or proverb. |

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# INTRODUCTION

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## 0.1 THE PROBLEM

Teaching English today is more difficult than ever before. The difficulty is faced not only because the knowledge which helps readers form psychological impressions of descriptions (of concrete as well as abstract things) in the text is diminishing but also because readers have become more media and visual oriented. Readers' knowledge is diminishing because of the expansion in information and resultant lower priority given to humanities subjects. Most of the information in the fifties or sixties might have come from printed texts but the share of radio, television, illustrations and such means has increased and the reading habit has/is change(d/ing). As a teacher of open distance education my personal experience has been that even in the humanities, other disciplines than English have quite a lot of relevant material in extra-orthographic form but English literature books, in spite of the high necessity, lack this dimension. It was this personal feeling, stimulated by the developments in technology in general and multimedia technology in particular, that made me inclined to take up the present research.

English is the most popular international language today. The number of aspirants for learning English language and reading literature in English is growing rapidly. Unfortunately the skills and knowledge required to understand literatures written in English emanating from different parts of the world are not available to all classroom teachers. Also, classroom teaching is not the only form of teaching but the extramural forms of teaching and training, where most of the times students are on their own, have been catering to large numbers.

Classroom teachers and independent learners need authentic resources to decipher the literary symbols. The resources can be in the form of pictures, sound

recording, museum exhibits or other relevant forms. In fact the resources can be in so many different forms that they cannot be made available to all teachers and learners. The need and relevance of such text relevant information is particularly felt in teaching foreign literature because of the unfamiliarity of the literary symbols. Hypermedia seems full of promises and perhaps capable of providing all the pertinent information, in a limited sense, that learners/teachers might wish to have in reading a text.

The main area of research in the present thesis is whether multimedia technology can successfully explain the literary symbols that a human teacher, even with the help of other media, fails to explain and whether multimedia technology can help distance learners learn on their own.

Most substantial research has a main research question and a number of subsidiary questions to answer which crop up *passim*. Similarly this thesis has a number of issues that it aspires to answer. Corollary issues that arise are: do teachers have non-textual resources available to explain the non-native symbols and do they use them? Do Indian students have the necessary training in 'reading' required to elicit information from these media? These were questions which could be answered only through empirical verification but the deduction that this thesis aspires to draw from these enquiries is the importance and usefulness of different means of communication in decoding literary symbols.

Part of the problem of examining the efficacy of multimedia in teaching English (or for that matter any particular subject/discipline) is that available research focuses on the development of multimedia not from the angle of the requirements of the discipline but as a development of the means. The approach that tends to be taken is to utilise the qualities of multimedia and then to search for the aspects of

literary texts that can be taught, whereas the approach should be to find the aspects which need to be taught and then to find ways to explain them through multimedia.

The principal approach taken in the present thesis is to find answers to the questions inductively and deductively through evidence and ideas obtained from teachers through interviews following engagement with a specially devised hypermedia programme. Subsidiary questions have been summarised in section 7.3.3. One of the aims of the thesis is to discover what are the issues in a literary text that need explication in teaching a non-native text and whether these can be taught through the help of computer-based multimedia programmes. To set the stage for such research the efficacy of English and also of technology in India have to be explained. Although the two areas are quite dissimilar in nature, for the purpose of this research they appear side by side. Chapter 1 accommodates these ideas by bringing together the two interconnected areas. As the researcher is a teacher of English in India and the findings of this research are likely to have implications in his teaching in that country the focus is on the teaching of non-native literary texts i.e. literature emanating from outside India.

The meaning of 'native' will differ from situation to situation. Robert Burns' writing might be non-native for a reader from south of London or the novels of Charles Dickens may have symbols which might be foreign to a reader from Dundee or Aberdeen. For this thesis 'non-native' will mean 'foreign' - from a different country.

The selection of hardware and software were constrained by the availability of technology at the place of study (i.e. University of Hull) and its availability to students in the Indian universities. Before deciding on the platform I made a

general survey of the technologies available. I also surveyed programmes available at Hull University and in the selected Indian universities where the study was to be conducted and then decided on the platform for my programme.

### 0.1.1 The research question

The research examines to what degree the available media can be used for delivering information on the 'signs' used in literary texts. Innovative use of multimedia for audio and visual co-ordination, pacing learners' response, and elaboration of factual literary and critical knowledge to enhance the effectiveness of learning conditions have been examined. The study leads to novel literary practices and innovative procedures for using existing media.

We must be clear from the very beginning that each medium can have a unique role to play in terms of communication and teaching. As with the development in colour photography, black and white photography has not totally lost its relevance; with over-head projectors the magic lanterns have not become totally obsolete and similarly hypertext will not totally supersede books and workbooks, tape-recorders, video, and other media. These will still be relevant for teaching, especially in the Indian context for reasons discussed in Chapter 1 Part I. As has been mentioned, the research has the dual purpose of ascertaining the context for teaching literature (which texts, which symbols to be emphasised) on the one hand; and on the other what literary modes are to be applied to the analysis of the text.

In short, the primary research question is: can hypertext perform the dual purpose of ascertaining context and providing an approach for teaching literature? A

secondary question is: to what extent might hypertext enhance the understanding of English Literature to (Indian) students in India?

From the main research question two other issues were seen to be emerging. The issues were to identify the areas that need particular attention of teachers in teaching foreign literature and to discover how are these handled at present? Can hypermedia help/assist/substitute teachers in teaching the identified issues? Answers to these questions were obtained through personal interviews and are presented in section 7.3.5.

## 0.2 THE CRITIC AND THE TEACHER

Sometimes it is misunderstood that the task of the literary critic or the teacher is to bring to the reader's/student's notice the unwritten part or what is not said in the text. The critic is taken to be something like a detective in literary study. This is to my understanding an inappropriate way of looking at the role of literary critic and literary criticism.

Literary critics have adopted different methods to analyse texts. The process of analysis at times focuses on language and at times on the author's biographical notes. Some critics emphasise the importance of the words, some the subconscious mind of the author and some the social and political climate of the contemporary times. I will like to point out here that the cultural aspect of literature is being emphasised because this is, to my understanding, the key aspect of literature which poses the main problem to students and teachers of non-native literature. To give an example from personal experience my teacher during my undergraduate study while teaching 'The Waste Land' explained the line 'HURRY UP PLEASE ITS TIME' [sic] as Eliot summarising the Hindu idea that

one life is too short to do the good work we are supposed to. Later on in my conversation with people in the UK I was told Eliot was referring to the call a (pub) landlord gives at closing time. I am not sure which explanation is correct but if the second one is correct then the cultural information through the help of different media will perhaps help non-native readers understand the context. My contention was supported by Serge's (1973) study for he says

> . . . mutual intelligibility is possible only on the basis of its [sign] fixity; if I want to express a meaning I have recourse to its corresponding signifiers; if I see or hear such a signifier I know the meaning it refers to (p 57).

Even Rosenblatt (1968), a well known proponent of reader response theory, admits

> Just as the personality and concerns of the readers are largely socially patterned, so the literary work, like language itself, is a social product. The genesis of literary techniques occur in a social matrix (p 28).

To further reinforce my contention I decided to take the issues up with my respondents and probe further whether explanations on the lexical items and cultural aspects of the texts were required. Their responses have been presented in the seventh chapter.

I am aware understanding the tenets of other schools of criticism (e.g. Marxism ~ dialectical materialism) can be equally problematic but this can happen to any reader whether native or non-native. I am not highlighting them because they will also not have substantial repercussion on the development of *Technocriticism.* Through the use of a combination of media through the hypermedia platform I have attempted an interface of literary and linguistic analysis of the text along

with the author's biographical details and social context. I hope this approach will help students gain a better understanding of the text. Technology in education is helpful because of its varied presentational modes, immense retention capacity and easy accessibility. The study has examined the application of hypermedia for transferring literary, cultural, social, and geographical information for learning about literary texts.

The process of building the literary community begins with the author. It is always the will and desire of the authors to communicate with their 'audience'. The author has decided to share the feelings not to put a riddle before the readers to solve or to trap the readers in a jigsaw puzzle. This is broadly the view the critics of the psychoanalytic school of criticism take.

Some critics like Roland Barthes, Paul de Man (See Barthes 1977, Burke 1992) and others have argued against this approach and say that once a text has been created and printed it occupies a status independent of the creator of the text. In reading a text the reader does not understand or decode what the author wants to say but interprets what the text speaks. The distinction between what the author feels he is saying and what the reader interprets the author to be saying can be substantiated. The reader interprets the text not the author, so giving rise to Barthes' (1977, '90) phrase 'the death of the author'.

With the 'death of the author' phenomenon two simultaneous arguments seem to have started. One is the probing of the text in relation to the author and the other is the authority or status of the reader in the interpretation of texts. Paul de Man himself has been the subject of scrutiny. The question which has been raised is that de Man a nephew of a Minister in the Belgian government during the anti-semite movement was himself writing against the Jews but took an entirely

different anti-author position as a Yale professor. Now if the author is not important in the interpretation of a text then the two writings cannot be related.

T.S. Eliot has defined the critic as catalyst. Catalysts do not take part in the chemical reaction but only help the chemical reaction to start. Critics could more aptly be defined as the Hindu gurus. Critics are like gurus because they are the mediators or wise people who have attained a supreme level of knowledge and become qualified to show the apprentice the path to unity with God. Just as gurus are not Gods but they help in the process of spiritual understanding, so too critics are not creative writers but they help us to understand authors. The argument is not that each student of literature be taught each school of literary theory but that the students be introduced to major schools and then left to dig deep or go to another theory at their own will.

Teachers should also take a similar position where they introduce their students to different approaches to text analysis and let the students take the approach they would like to take. This approach is not usually taken because a single teacher is not normally confident in all different approaches and also does not believe in all.

One of the main emphases of the research is to find what makes an expression a work of art, especially a literary expression, and how these texts can be appropriately interpreted by readers from different cultural backgrounds. At the pivot is the work of art. Some critics consider the author as one of the main channels through which the text can be understood. A piece of literary creation, like any piece of art, is the product of very many personal experiences and impressions. Besides the individual experiences the author follows certain social and linguistic codes. Each text has a trace of the texts read and the icons and incidents witnessed by the author. All the signs and symbols that an author uses

have an individual as well as social signification. In critical analysis the literary tradition of the language in which the text has been written becomes extremely important. Similarly literary traditions with which the author might be familiar become important.*

The process of creating a text in some ways mirrors the process of reading it. Every reader reads each new text with his previous experiences and feedback. "No text is read independently of the reader's experience of other texts" (Eco 1979 : 21).

So a text - or structure of a text as Jefferson and Robey call it - is "a set or totality of relationships" (Jefferson & Robey ed. 1982 : 44) shared by the encoder (the author) and the decoder (the reader) or the 'autonomous event' or what is named as the 'hermeneutical circle' by Ricoeur (1981 : 165 - 167).

## 0.3 EXISTING RESEARCH IN THIS AREA

The difference between research and the application of multimedia needs to be discussed before reporting on the existing research in this area. Multimedia approaches have frequently been applied in classroom teaching and so their presence in the class can no longer be considered new or pioneering. But most of the multimedia programmes have been created without proper research into the learning or communicational advantage of the multimedia approach over other media.

* At this point I thought it was necessary to interview some creative writers to find how they formed their ideas and put them to words. It was also thought important because they could provide clues to the role non-literary material played on their writing. A questionnaire was prepared for this purpose but because of the financial and time constraints this aspect could not be taken up. However, the questionnaire has been enclosed as Appendix 9.

In the last couple of years, a number of programmes have appeared on literary texts. Big publishing houses have produced CDs on the works of different authors; Brown University (US) with a large networked mini-computer facility has created a big database on the hard disk and teachers in possession of authoring multimedia programmes have developed small 'disk-based' programmes. The only quality of multimedia being utilised is the capacity to hold enormous data or to transfer data in electronic form.

Existing research in media studies focuses on one or the other medium but there seems to be no substantial work in multimedia. Even the available research is most of the times not in the context of teaching literature. We find most of the research comparing one medium to the other or the suitability of one medium over the other for the purpose of a particular group. A 'media in literature teaching' study should start from the search for problem areas and then identify the medium or media which can help best in explaining them.

## 0.4 HOW IS THE PRESENT RESEARCH DIFFERENT FROM PREVIOUS WORKS ?

Research in the application of multimedia in the teaching of literature can have different but equally important focuses. An important area of research can be to examine the usefulness and advantage of multimedia over other media. In such research the primary question which may be attempted can be 'is a multimedia lesson more useful than a video lesson or a classroom lecture or a mixed-media lesson?'. Available research attempts an evaluation of available media but the overall impression is of 'no substantial difference'. Clark (1983) says "we will not find learning differences that can be unambiguously attributed to any medium of instruction" (p 457) but Kozma (1991) suggests that "[Clark's] position must

be modified. The fact that these questions are now asked from within an integrated, multimedia environment will raise other, more novel questions - ones not yet answered in research" (p 205).

Clark (1983) suggests "Future research should therefore focus on necessary characteristics of instructional methods and other variables (task, learner, aptitude and attribution), which are more fruitful sources for understanding achievement increases" (p 457). This is an important direction any pioneer research should take to assess the learners' aptitude and clearly define the task the medium is expected to perform.

The present research has attempted to demarcate the areas a multimedia literature teaching programme is expected to perform (Chapters 2 and 3). Available hypermedia programmes seem to attempt just one goal - to build a programme as a substitute to a journal article - but the present research has attempted to develop a programme which will help the learners' learning process.

## 0.5 APPROACH/METHOD/TECHNIQUE

A method of interpretation convertible into a computer programme is suggested on the basis of readings from different schools of literary criticism. A short story has been analysed on this model and the interpretation/suggestions have been converted into a computer programme. This was shown in India to the teachers of advanced level literature students of English. Some deductions were made from the response to the computer programme which were automatically recorded by the computer. Senior teachers (who take part in policy planning) were interviewed to ascertain the prospects of multimedia for teaching literature in India.

Personal interviews of the respondents were adopted as an important method of testing the efficacy of multimedia for teaching literature in India. The interviewing of teachers was considered important for two reasons. The first was to find the familiarity of the target clientele to this tool and their responses for creative and integrated use of the tool in the teaching process. The second consideration was to expose the target clientele to the uses and potential of hypermedia in teaching. This approach was considered necessary because unlike many countries Indian universities are autonomous and they take decisions independently. The University Grants Commission (UGC) sets the guidelines for universities but matters like curriculum planning are the prerogative of the postgraduate departments and the views of the Heads of the departments usually prevail. Although not strictly a matter of interest for the present research the issue might have implications for the curriculum in the years to come. But this was only a related issue to the question 'Do the potential users feel it can become a teaching tool?'

It was felt that from the field study and interviews with the teachers of English in India it would become clear how they explain symbols used in the text by authors and created in a different culture. The decline of the cinema industry in the UK particularly makes it a more useful medium for teaching. Movies like 'The Adventures of Robin Hood' and 'Jesus of Nazareth' made by Elstree Studios could be used for explaining society and customs but not many such movies are now produced because the studio is shut down*. Most popular movies in English

* I am aware of the limitations that a media adaptation of a literary text suffers from. The point of view of the director would normally influence the adaptation but still these are favoured because there can be no production without a director. This is the only 'authentic' information available to non-native learners. This aspect has been discussed in detail in Chapter 1 and section 2.2.5.

today are made by Hollywood and these are quite often not based on literary texts and also not on the social and historical aspects of the British society.

The purpose of stylistic analysis is to analyse and make simple the elements in a text which "limit freedom of perception in the process of decoding" (Riffaterre 1959 : 159). For this purpose first hand information from a group of readers will be necessary just as data for linguistic analysis is collected as a prerequisite. From the field work I had expected to elicit subjective responses to a text and through a range of subjective judgements a more balanced overall judgement was to be obtained. We can no more disregard individual response in literary analysis because for every response there must be some stimulus in the text. Through this effort the research aspires to fulfil the desire expressed by so many critics (see Riffaterre 1959 and Iser 1976 ) that literary theory also be field tested. Although we are not unaware of the point made by Wellek and Warren that

> "intuition" may lead to merely emotional "appreciation", to complete subjectivity. To stress the "individuality" and even "uniqueness" of every work of art - though wholesome as a reaction against facile generalisations - is to forget that no work of art can be wholly "unique" since then it would be completely incomprehensible. It is, of course, true that there is only one *Hamlet* or even one "Trees" by Joyce Kilmer. But even a rubbish heap is unique in the sense that its precise proportions, positions, and chemical combinations cannot be duplicated exactly. Moreover, all words in every literary work of art are, by their very nature, "generals" and not particulars (1949 : 7).

## 0.6 SOME TERMS EXPLAINED

### 0.6.1 MULTIMEDIA, HYPERTEXT AND HYPERMEDIA

Three terms - multimedia, hypertext and hypermedia - have been used by users of multimedia programmes. The first term to be used was multimedia. As the compound would suggest, it was the combination of media - like text, graphics, pictures etc. But with the advent of the Macintosh software HyperCard most people started using the term 'hypertext' as it permitted only texts to be joined together. For some time now hypertext programmes have made possible the inclusion of sound, graphics, pictures and video. As this is a step beyond the text-only approach multimedia programmes have been named as hypermedia. Discussing these terms Deegan et. al. (1992 : 1) say

> Hypermedia, then, is difficult to define on paper, and even within electronic systems based on hypermedia as it is sometimes not easy to see what are the unifying principles which make all of them part of this new medium. ... 'Hypermedia' is the term usually used of a hypertext system which incorporates media besides text: graphics, animation, video, sound. This word is often used synonymously with 'multimedia', but confusingly, there are multimedia systems around which do not incorporate the organising principle of hypertext (the Doomsday Project videodisk, for instance) so we prefer to use the term hypermedia.

Sutherland (1990 : 305) on the other hand says

> The word *hypertext* now denotes a system of electronically linked texts and the cognate *hypermedia* is simply an extension of hypertext to include other non-textual materials.

(See also section 2.3.4. on the definition of multimedia).

## 0.6.2 WORK, TEXT, DISCOURSE

The other group of terms which needs to be explained is that of 'work', 'text', and 'discourse'. Quite often discourse and text are differentiated on the ground that discourse is oral whereas text is recorded or permanent. Contrasting text analysis to discourse analysis Crystal (1987 : 116) writes "Text analysis focuses on the structure of written language, as found in such 'texts' as essays, notices, road signs, and chapters" whereas "Discourse analysis focuses on the naturally occurring spoken language, as found in such 'discourses' as conversations, interviews, commentaries and speeches". But simultaneously Crystal records the tendency to distinguish 'spoken and written texts' and 'spoken and written discourses'. The branch of linguistics known as 'text linguistics' incorporates study of both verbal and written symbols capable of communicating message. Earlier Crystal (1985) had differentiated these terms by saying

> Some linguists make a distinction between the notions of 'text' viewed as a physical 'product' and 'discourse' viewed as a dynamic process of expression and interpretation ... A similar distinction sees 'text' as a notion which applies to surface structure, whereas 'discourse' applies to deep structure. From the opposite viewpoint, some linguists have defined 'text' as the abstract notion, 'discourse' being its realisation. Apart from these theoretical distinctions, there is also a tendency for texts to be thought of as monologues, usually written, and often very short (e.g. 'No through road') whereas discourses are often thought of as dialogues, usually spoken and of great length (pp 307 - 308).

Linguists, ethnographers, sociologists, psychologists and others have joined to contribute to the understanding of the communication process under the same heading 'text linguistics'. The element which has enforced considerable influence is the societal element in determining meaning and interpretation. The position a word in a sentence or a sentence in a continuous text commands is the same as the

social significance of a ritual or myth or norm in a particular society. Texts which are (and quite often they are) social records incorporate such symbols and their interpretation will involve interpretation of society. So texts can be further subdivided into two types depending upon the competence of the interpreter (a) familiar with the society of the origin of the text and (b) unfamiliar with the society of the origin of the text. The Sapir-Whorf hypothesis provides a clue to text analysis. We approach a text from our own literary and cultural background. For example we approach a poem from our own understanding of a poem but the deviation from norm or conventions of a different socio-literary tradition would be incomprehensible and so unanalysable without further information.

It can be deduced that there are certain elements in a text which are familiar even without reading a text. The intention to read a poem presupposes that it is in the tradition and form of an existing genre. But there are conventions in poetry writing with which the reader may not be familiar so these elements in the text would be like new information. Barthes (1977 : 156-157) distinguishes the familiar elements as texts and the unfamiliar as a work. He writes :

> ... there may be 'text' in a very ancient work, while many products of contemporary literature are in no way texts. The difference is this: the work is a fragment of substance, occupying a part of the space of books (in a library for example), the Text is a methodological field ... the Text cannot stop (for example on a library shelf); its continuous movement is that of cutting across (in particular, it can cut across the work, several works).

Works are abstract entities existing without any particular attention. Work is like a common noun. They are physical objects occupying a place anywhere in the book shop or library but they become a text only when it makes a relation with the reader. Even before being read some part of it may become text simply from the

title of the work. For example if the title of a work reads 'God died in Ayodhya' a reader aware of the incidents in the Indian town of Ayodhya where some people demolished a structure saying it was the place of the birth of Hindu God Rama might feel it is about that but a reader not aware of the incidents would take it as any place name. So the work can be defined as the abstract entity existing without personal attention and knowledge whereas a text is the familiar part in a work depending upon the milieu of the reader - although both these terms are used interchangeably.

Discourse as the 'deep structure' of the text has the semantic potential incorporated in it. In a text there might be several discourses depending upon the length of the text and also depending upon the interpretation a reader can offer. As texts are woven through different events and related events each of these can become independent discourses. The term discourse means any communication worthy of interpretation irrespective of physical status i.e. recorded or unrecorded although text and discourse have also been used interchangeably.

But still the terms are far from standardised. Ricoeur (1981 : 166) says

> A text can undoubtedly be reduced to a single sentence, as in proverbs or aphorisms; but texts have a maximum length which can extend from a paragraph to a chapter, a book, a collection of 'selected works' or even the corpus of the 'complete works' of an author. Let us use the term 'work' to describe the closed sequence of discourse which can be considered as a text.

## 0.7 CHAPTERISATION

The thesis consists of seven chapters. The first chapter tackles two related issues that are crucial for this research.

Scope: Why teach English, a language known by less than three percent of the people in India and if teach it at all why employ technology to teach when there is no shortage of trained teachers?

Objectives:

Part I"

Introducing the place of English in India and the importance of employing technology in teaching it in the present day world.

Part II

What should be the meaning of technology in the context of teaching English literature to a non-native non-native learners?

The first part presents the socio-political dimensions and the context of teaching non-native English texts in India. Even though language and technology may sound quite dissimilar areas, resistance to their use in India is made for similar reasons. English is a 'foreign' language and technology represents the power of the industrialised world. The first part raises a number of issues related to language, technology and ideology and provides summary answers to them. This section also summarises the available technological experiences for educational purposes.

The second part of this chapter discusses the 'approaches to teaching literature' i.e. machine tool, the behavioural and the hermeneutic. The common elements between language and technology are raised to bring to light the similarities between the two. A definition of technology in the context of teaching literature is also attempted. This explanation will provide insight and direction to the literary model that is going to be adopted for illuminating the text.

The second chapter is devoted to the theoretical approach to literary analysis of the text.

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| Scope: What is the present practice of literary appreciation?<br><br>Objective: To introduce different forms of texts and symbols available to learners of English, taking into account their inability to decipher the signs because of the lack of related information. |

In modern times texts have liberated themselves from the shackles of print form and they are presented in different media forms. They have also liberated themselves from the confines of area and audience. More and more texts are becoming global. These developments compel us to analyse the versatility of texts and the new reading techniques that need to be developed particularly for texts in English.

Chapter three is an attempt to provide an argument and approach for teaching foreign literature through the use of traditional multimedia. A semiotic approach and linguistic methodology has dominated the present research.

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| Scope: What does traditional multimedia say about developing lessons?<br><br>Objective: To discuss the devices, print-based multimedia applies to explain texts. |

The area which has occupied the centre-stage of educational media research over the decades is media selection and combination for accelerating the learning process. The focus of research has been which media to combine for optimal benefit in what ratio and in what order. This has led to the 'emic' study of media.

In the field of literary analysis interpretation and decoding of texts has been an ongoing process. The sign-vehicle as created by the literary artist has been reinterpreted through the use of different 'signifiers' and ideologies. The 'etics' of texts have been decoded into the 'emics' of symbols and icons.

The 'literacy' of different media is rarely a consideration of the pedagogues. Sociomedia instead of the sociolinguistic approach to language teaching has to be adopted. Media selection has to be guided by a semiotic analysis of the language, society and cultural background of the learner.

A learner can read a text, view it on a television or listen to the recorded narration of the story. The decoded sign (as a combination of 'signifieds' and 'signifiers') of texts recorded in 'new languages' in multimedia or media-mix formats could provide the new pedagogy for understanding the language of foreign literature as cultural symbols. The unit of analysis is the 'sign' as the 'emic' and the 'signifieds' and the 'signifiers' as the 'emics' of language.

Chapter four suggests a basis for creating a hypermedia programme.

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|---|
| Scope: How can we develop programmes which will take us a step further from present media application and will have larger appeal? |
| Objective: To develop a format for hypermedia programme which will have wide appeal and universal application. |

Since the birth of hypermedia its use in teaching has been expanding. Hypermedia arrived at an appropriate time because all teaching had become

multimedia by the time the hypermedia format was invented. Teachers brought real objects and simulated conditions through media into the classroom in an effort to make teaching realistic and experiential. The more the efforts were made to bring teaching close to first hand experience the more the necessity of multimedia was felt.

Artists draw their inspiration from everything they see and experience. This is why we find literary texts about totally unconnected ideas emanating from the same author. The topics on which an author can write are virtually infinite. Even if the author does not go into detail in dealing with a particular image he uses in a text the image that will influence the reader's understanding of a text. A symbol used in passing would not pass unnoticed by all readers because of the individuality of each reader. Every symbol an author uses in a text is subject to interpretation. This is because the literary sign cannot be pinned to a single meaning. In the process of encoding the author recreates the signifiers in his own terms. Semiotics provides a helpful model for preparing a hypermedia format for teaching literary texts.

Teachers and students of literature have been pioneers in the use of hypermedia technology and so we are already in a position where there is a mushrooming of software for literature teaching. No sign of standardising the format for optimal use is in sight however. We will much sooner be faced with a situation where searching for an appropriate software would be as difficult as finding an appropriate article today. Technology is expected to optimise information to maximise knowledge. The confusion created by the Gutenberg invention is because duplication cannot be avoided.

The standardising process can be evolved by adopting a language approach to literature; an approach where we gradually proceed from word to work. Hermeneutic understanding of word as the nucleus of all linguistic analysis/understanding is at the pivot of this chapter. Proceeding on Vygotsky's theory that "A word is a microcosm of human consciousness" we find the clue to the hypermedia approach.

The survey of critical methods applied to decode literary texts in chapter 2, the techniques of print-based multimedia presentation in chapter 3 and the study of the universal features in the study of literary texts in chapter 4, give us an idea of the features we need to incorporate to develop computer-based multimedia programmes with the possibility of being used by a wide range of students. The problem now was to find an appropriate platform to develop my programme. The selection was limited by a number of issues. There was no finance available to take up project which involved large expenses. The selected tool had to be developed locally inside the university and within the available hardware and software. The selection was also constrained by the availability of the hardware in the universities (in India) where the programme was to be tested. This chapter summarises the study undertaken to find the general issues in developing multimedia programmes. The section of the tool had to match the computer support available in the selected universities for the study in India.

Scope: What are the available technologies for developing a programme suitable for Indian students?

Objective: Review of available technology for developing the sort of programme suggested in the last chapter and the review of available technology in selected Indian universities where the developed programme was tested.

The two issues undertaken in this chapter have been dealt with together by necessity. The selection of the research instrument had to be matched with the decision to test the programme in India for the reasons stated above and in chapter 5.

Chapter six is devoted to explaining the structure of the developed programme *Technocriticism.* From the survey of the available technologies and technologies available in the Indian universities it was decided to select HyperCard as the platform for developing my programme.

Scope: How is the programme developed on the selected software and it is appropriate for the target clientele?

Objective: Discussion of some of the qualities of the selected software (i.e. HyperCard) and how they were applied in developing the defined points. Responses from the pilot survey have also been included in this chapter.

The selection of HyperCard was a pragmatic decision. HyperCard was expected to be available on all Apple Macintosh machines because Macintosh had decided to bundle a free copy of HyperCard with all machines sold. In developing a hypermedia programme the issue of selection of the platform was as important as the background of its users. Selecting the tool without keeping in mind the 'literacy' of the users in that tool and its availability might have proved a futile effort. From the data available through print and on-line electronic document available through GOPHER presented in chapter five it seemed that computers were available and they could even be used for distance logging of data through ftp site (file transfer protocol site). But the constant breakdown of electronic

network of India (ERNET) when approached through JANET (UK) it was felt everything was not fine on the ground level. As the Powerbook 100 was available to be used for field study in India, HyperCard was selected to be the software. The hypertext is created on the basis of the literary analysis made in chapter two. This chapter also incorporate details of the methodology adopted for testing the hypertext software. The programme was administered to fifty selected respondents in India and the findings are reported in the next chapter.

The seventh chapter presents the responses of the teachers of English in the Indian universities.

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| Scope: What do Indian teachers of English say about the teaching of English in India and how is this programme suitable ? |
| Objective: To present the responses to the developed programme from the teachers of English interviewed in the ten selected Indian universities and an analysis of their responses. |

The responses are in the form of views expressed in the interviews of the respondents. In this chapter I also present an analysis of the responses.

In the conclusion, the implications for practice, some suggestions for future research in this direction in general and particularly for its use in India have been presented.

# CHAPTER 1

## WHAT IS READ IN LITERARY WORKS : TEXTS, MEDIA OR CULTURES?

**CONTENTS**

## 1.1 INTRODUCTION

The aims of this chapter are to introduce the different forms in which a literary text can be presented to students and also highlight the approaches students require to consider in reading non-native texts. This is particularly important in teaching texts written in English, because texts written in English can emanate from different parts of the world, and also because these texts are being adapted for different forms of media by different people.

The most popular form of circulation of a text is the printed form on paper. A later addition to this form of text circulation has been radio and television* . In recent years multimedia texts have also become available to readers. All texts are directed towards readers/students. In the following sections we will examine 'What do readers/students read from a printed text?' ' Do they read what the writer of a text wants them to read or do they read what the designer and artist (through the illustrations) want them to read?' or 'Do they read what the critic and the teacher wants them to read?'. With the development of radio and television the practice of adopting texts for these media has also become common. Every medium explicitly or implicitly forces its own agenda on the text. In adapting a text for the radio or TV the practised norms of the medium have to be followed. Readers exposed to such 'media texts' would require appropriate techniques to extract the message from them. This is not the first time reading has needed redefining.

Before the invention of writing, memory was the scale for measuring knowledge but with the invention of scripting devices, writing became the yardstick. Literacy is defined (anomalously to me) by the acquisition of the writing skill. When

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* There may be many more methods/processes of circulating texts like enacting in drama form, group reading, discussing texts. The forms mentioned are not exhaustive. Only those forms which have relevance to this research have been mentioned.

printing was in its infancy pictures and drawings were not included. Consequently, the total message was derived from the written text. But with the advancement in printing technology first drawings and then realistic pictures became part of printed texts. It is difficult to find texts without 'extra orthographic' devices used for enhancing communication. Hence, today reading a text involves reading words, pictures, diagrams and other illustrative and stylistic devices. In the '80s we have witnessed the infiltration of machines like tape-recorders, video films and photocopying devices into academic activities. Teachers have adopted the technique of distributing handouts instead of writing on blackboards and students have photocopied articles instead of reading and note taking. Information technology has changed not only the mode of presentation but also that of interpretation.

The goal of reading a literary text is to understand the literary 'sign'* . Ferdinand de Saussure's (1983) distinction of the 'signified' and the 'signifier' for the object and the "sound pattern" is very important in examining the process of reading in the modern technological world. Defining the linguistic sign Saussure says:

> A linguistic sign is not a link between a thing and a name, but between a concept and a sound pattern ... A sound pattern is the hearer's

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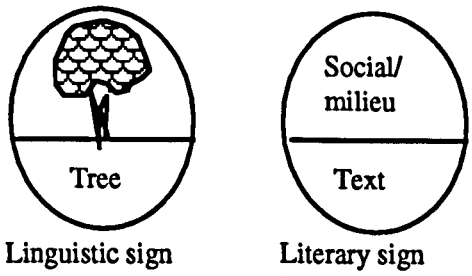
* A literary sign unlike the linguistic sign will not be a word but a concept, idea, episode, object described in a continuous text. The concepts, ideas, episodes, objects may be universal or




Linguistic sign Literary sign

local and their depiction will depend upon the author's understanding of them and the author's use of language. In a literary text there may be a number of literary signs created by the author. Both the linguistic and the literary sign are arbitrary. A linguistic sign is the arbitrary symbol of a group; a literary sign an arbitrary symbol of the author. The relationship between signifier and signified is basically unstable : hence the importance of context and the interaction between the reader and the text.

psychological impressions of a sound, as given to him by the evidence of his senses (p 66).

In decoding a linguistic sign the sound pattern will have the same role that a literary sign will have in decoding a native text. The invention of the micro-chip and the percolation of information has made the concept of "psychological impression" quite fluid. Literary texts from all parts of the world are available to readers but without the personal experience. For instance a Western reader will have no "psychological impression" as such of 'sati' explained in an Indian novel. An example of this being Sita in *Ramayana.* This generalisation is made especially in relation to texts written in the English language.

Different approaches to literary appreciation have argued in favour of one or the other approach - author-centred, text-centred or reader-centred. To some (e.g. Romantic critics) the author as the creator of the text had 'assimilated truths unseen' by the masses. To the New Critics the historical and traditional factors were of little concern and the text was capable of revealing itself. But to the reader response theorists an 'active' reader interacting with the text was better placed to determine the message of the text.

In reading a foreign text three approaches will have to be rethought - the author is placed in a very different situation from the reader, andthe text brings in symbols which at times evoke little stimulus in the minds of the readers. Foreign readers have a completely different background to the text and they don't interact with the text in the same ways that a native speaker might. Benton (1978) in the *Preface* of his book rightly points out

> It is commonplace about reading literature that the reader recreates in his head something that approximates to what the writer originally created in his own.

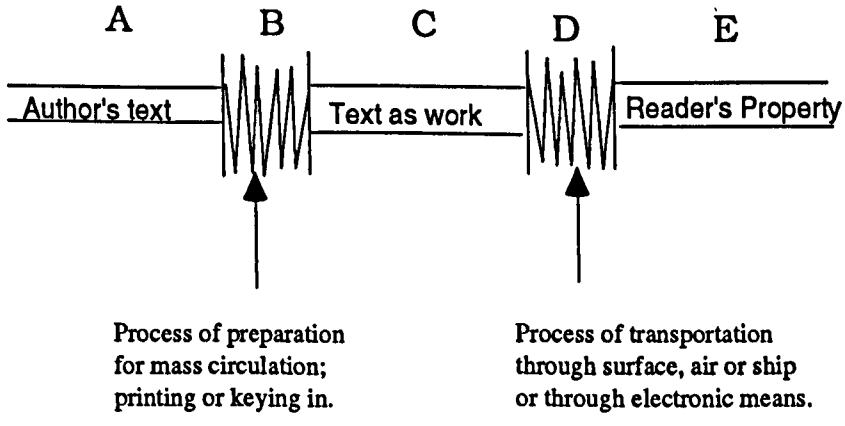
He further says

> No writer writes without a sense of audience, even if it is only himself; readers cannot function without writers.

In the next section I will examine the three approaches to literary analysis and their implications in developing multimedia tool.

## 1.2 LITERARY ANALYTICAL PROCESSES AND THEIR IMPLICATIONS FOR THE DEVELOPMENT OF *TECHNOCRITICISM*

There are three stages in the process of creating a text. The first stage is the period before the publication which I will call incubation (A); the second is the period during which the text is waiting for the reader to act (C); and the third is the stage when readers read the text(E).




(Figure 1.1 : Processes of Test Creation)

Readings of popular texts might be said to emphasize the reader's role. The life of a literary text however starts before the actual reading process because of the common knowledge about the author. Benton (1978a) through his studies summarises

> Authors, as well as psychologists, make us aware time and again that they are drawing upon the images, and the linkages which form themselves into narratives, that flood the subconscious and, simultaneously, that they are working with the conscious mind to shape a finished art object from this raw material. (p. 4)

These texts are read for 'aesthetic' (as against 'efferent' reading* ) pleasure and the aesthetic process is completed only in the meeting of the author and the reader (Iser 1972 : 179). Even though with the publication of a book the control of the author on its reception is limited (in spite of the fact that as the copyright holder the author can withdraw, decide not to reprint etc.) the author's imprint is unwashable. The New Critics with the help of Linguistics successfully demonstrated during the 1920s that text was capable of providing a meaning for itself even without the personal experiences, socio-psychological conditions or literary tradition either of the author or the reader. Summarising the movement Barthes (1977) says

> ... linguistics has recently provided the destruction of the Author with a valuable analytical tool by showing that the whole of the enunciation is an empty process, functioning perfectly without there being any need for it to be filled [by] the person of the interlocutors ( p 145).

*The main divisions in reading process have been named 'efferent reading' and 'aesthetic reading'. Efferent reading has been defined as reading for information like manuals and directions from maps.

It won't be acceptable to many to call it the 'destruction' of the author. I would like to continue with the metaphor of birth-death and argue that exactly the way a baby born of a foetus grown in the womb of a smoking mother is likely to get lung disease a book incubated in the womb of an author who feels blacks are wretched will find rough treatment for black characters. The author may not always say 'blacks are wretched' but give the blacks the place only of servants or criminals. Similarly most white characters I have come across in the twentieth century Indian and African literature (e.g. Narayan 1961, Dangarembga 1985) are portrayed as semi-human oppressor. Those adopting Western life styles are subtly depicted as decadent and immoral. Nhoma the headmaster in *Nervous Conditions* is depicted as successful but immoral because his wife smokes, and their daughter has a boy-friend which are looked down upon in these societies. Similarly in the *Man Eater of Malgudi* Vasu the villain wears trousers which is considered a Western influence and all others wear 'dhoti' which is considered nationalistic. Vasu unlike good people prefers 'original Heidelberg' printing ( p. 29) to hand printing which was (till recent past) the predominant method of printing. The purpose of evoking the above symbols is to show that the author like the invisible commander in army or the behind the scene thread-holder in the puppet show manipulates the reactions of the readers by subtle use of language. Some authors have a close relationship with their readers which helps inform the text as Benton (1978b) makes us believe. Through examples from different novelists he proves authors have an audience in mind with whom they want to establish a dialogue. He says

> Literature abounds, albeit less dramatically, with writers who testify to the need for participatory readers. ... Fielding had invited the reader of Tom Jones to fill up "the vacant space of time with his own conjectures"; Henry James claimed that the author makes "his readers very much as he makes his reader characters ... when he makes him well, that is makes him interested, then the reader does quite half the labour"; Dickens considered

his readers to be "co-authors"; and Virginia Woolf writing about the experience of reading Jane Austen, says "She stimulates us to supply what is not there" (p 18).

The researcher wishes to refrain from analysing the political aspects and the sub-texts of literary writing as that is not one of the research issues this thesis aspires to address. But the linguistic aspects will be taken up because these are going to affect the structure of *Technocriticism.* This quality is likely to remain with the author because in spite of the generative capacity added to the machine with the help of AI, creativity has not been added. So the personality of the author will keep influencing the texts. The social structure and the background of the author are being emphasised because words as 'signifiers' are only 'by and large' meanings and they have to be fixed in the context of the author's presence. I don't see the role of writing being taken up by 'value neutral' machines. For literature teaching programmes the interpretation aspect of literature will have to wait till the machine can develop the capability to analyse. I would like to sound positive because if the machine has developed a syntax/grammar 'inspecting' qualities we can't rule out computers acquiring interpretation and 'inspectability' qualities some time in future and at least offering more possible socio-semantic interpretations than a human teacher can.

In the development of hypermedia programmes information on the author and other aspects like his/her attitudes, society and also the contemporary lexical analysis will be important and will help readers in situating the text in its context. Even radio and TV adaptation of texts try to do the same. Implications of mediation on texts are discussed in detail in section 1.4.

The second consequential stage for this study is the circulation (C). The debate about the 'grocery truck' (Clark 1983) and the communicational gains is still to be

settled because multimedia will demand reinterpretation of media taxonomy and symbiosis. Further research will have to examine the process of communication in multimedia programmes. To make it explicit the message may not be communicated as much through texts as through pictures and sound in multimedia texts. And, also, thinking much in advance if the authors themselves may start writing computer based multimedia texts the consequence may be that the authors might like to devote more time in searching and selecting pictures and music for illustrating their texts than writing and rewriting and so the 'author to Text-X' process as will be shown in figure 2.2 may change. The only symptom that prompts me to think so is that texts today have more illustrations than they had ten years back. We also find people talking of 'media bombardment' and 'media fatigue' because reading has become a habit, whereas watching pictures has not yet. This is again not an area which the present research intends to examine because texts adopted for multimedia presentation are scarce and in infancy and the present research aspires to develop a model for developing multimedia (as opposed to examining their effects on communication or teaching or learning gains) programmes for teaching available print based texts for Indian students. Further research will have to examine the effects computer mediation (D) have on a literary text and the full response of readers to such texts. However, I have discussed the effects of media mediation on the communication through available research later on in the thesis (especially sections 2.2.5, 2.2.6 and 3.2).

The reader's response has of late (to be precise since the 1970s) become more popular with the writings of Rosenblatt (1938, '68), Iser (1976), Fish (1980) and also with the Formalist, Hermeneutic, Structuralist and Semiotic approaches to text analysis getting currency.

Rosenblatt's (1938, '69; and 1964) studies give a very important insight to conjoin the readers' response and with author's background and other aspects of text (e.g. genre, tradition etc.). Rosenblatt's study is based on Robert Frost's poem 'It Bids Pretty Fair'. The readers were asked to start writing as soon as possible after beginning to read. They were to jot down whatever came to them as they read (1969 : 31). The readers had different responses depending upon their understanding. Rosenblatt concludes "Notions of mankind as whole, war, or astronomical time, were part of the readers' contribution to the meaning" (p 34). In teaching English in an ex-colony of Britain we may have to 'modify' the 'notions' the readers may have about the British, the whites. I have already mentioned at other places in the thesis that the common person's attitude towards the British is not very sympathetic because of the colonial past.

It must be added at this point that the researcher is not trying to force his point of view (say about white authors) through the multimedia programmes but only suggesting that all possible views may be made available to the readers. Indian BA students are also not quite familiar with the rhyme scheme or style of English writing and they also need to be informed about different patterns of writing which genuinely cannot be done only in the classes because of paucity of classroom teaching time. There are no texts from foreign literature prescribed in the syllabi below the undergraduate level so the first exposure to the British life, culture, history etc. is made only when the student reaches undergraduate class. In such a situation the Indian students' response to British texts is likely to be lopsided. The reader response can work to my mind only when the author and the reader share a common background which the text explains or depicts. Authors carve their text

> . . . out of the matrix of elements with common meaning for him and his readers, he [the author] builds up a new sequence, a new structure, that

> enable him to evoke in the reader's mind a special emotion, a new or deeper understanding -- that enables him, in short, to communicate with his readers.. (Rosenblatt 1938, '68 : 34).

For non-native readers this 'matrix of elements' will have to be artificially made available and multimedia programmes will help make available the missing 'elements' with 'common meaning'. But in the computer-human communication process the individual may not be able to get the right message and that will be resolved through the discussion platform the computer will provide.

The 'reader-response' approach is considered important and a major one and as such a provision for readers' response to *Technocriticism* will be made in the final programme. Readers' comments cannot be obtained till the programme is tested in India so it will not be possible to show the process of (B) how they can be filtered into the main programme. This process may be taken up by further research. In the next section I will examine the implications the medium and readers' background have on the understanding of texts.

To approach the research question "can hypertext perform the dual purpose of ascertaining context and providing an approach for teaching literature" I will focus the context of the text i.e. the creator and his/her milieu and examine how and in what hypertextual relation literary theory can be placed. It is none of the goals of the research to include all approaches of literary analysis but only demarcate the place it will occupy. The decision about the channels of circulation (D) will depend upon the development and availability of technology in India which I will examine later in the thesis

There may be two approaches for applying the theories of literary criticism to the analysis of literary texts. One can be to use theories through a text and the other

can be to understand all theories but let the interpretation emerge. The first is based on the Western tradition. The second approach has been the Eastern and was adopted perhaps because of the oral tradition. The learned ones knew and mastered theories then imparted *pravachana* (oral sermons) which was interpretation. Taking the view that the present research aims to teach English literature the first approach would have been appropriate but the predominant Indian psyche would favour the second so the second should be adopted. As a compromise and considering the size and quality of multimedia, information on all different theories may be added by experts of respective areas and also texts to be taught can be added to suit the needs of the users' group. I will return to this topic when I take up the issue of teaching foreign literature through multimedia in section 2.3. I will now consider some factors that affect the actual process of reading texts in English emanating from different parts of the world.

## 1.3 THE READING PROCESS

Readings by different people of the same text can be different. The word 'reading' in this context would mean interpretation. The differences would depend upon the ideological, social and intellectual backgrounds of the readers. Differences in time or period in history would make a difference in the reading of a text because of the change in understanding and development in human knowledge. Milestones in human knowledge like Darwin's *Origin of Species*, Marx's *Das Capital* and Freud's *Psycho-analytical Methods* are some such contributions which changed the method of interpretation or what can be said as methods of reading.

The word reading itself needs to be reconsidered because the image that the word reading evokes is of reading words, sentences, paragraphs. But the process of reading today involves interpreting films and analysing diagrams as well. It needs

to be considered what the process of reading was named when literary texts were transferred orally from generation to generation. In the *Vadic* tradition *Brahmins* are expository* texts on *Samhitas*. Both the *Brahmins* and the *Samhitas* have existed simultaneously in oral form for centuries. Where a text and the reading of the text both exist without any literal reading activity is an unimaginable situation today .

Saussure says "means of expression accepted in a society rest in principle upon a collective habit, or on convention" but the texts in English tend to incorporate expressions for habits and conventions around the globe. In such a situation the reader of English texts has to learn signs and symbols used all over the globe@ and conventions adopted by different media to communicate the message.

## 1.4 INTERNATIONALITY OF ENGLISH

In reading English one has to switch over from one set of value systems to another because of its regional variations and use. Readings from three texts all in English but originating from three parts of the globe, India (Asia), Zimbabwe

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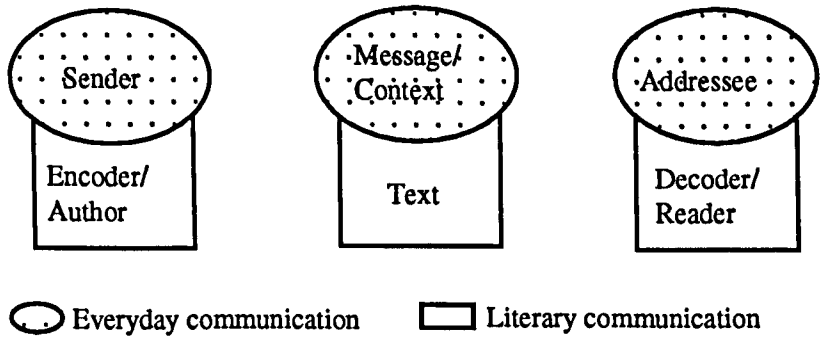
* The word exegesis would have been a felicitous choice but I am reluctant to use the word after referring to its meaning in the *Oxford Advanced Learner's Dictionary* which says "explanation and interpretation of a written work, esp. the Bible". This is neither the reading of Bible nor of a written work.

@ Jakobson's (1958) formulation of the sender, addressee and the context as the theory of the functions of language can well be extended to literary communication. In the literary text the sender will be the author, addressee the target average reader and context the medium. It can be represented as:




In the modern world the definition of text and the decoder both have become very wide.

(Africa) and England (Europe) would make it apparent that reading texts in English involves different strategies.

In reading the below quoted passage from R.K.Narayan's (India) (1961) *The Man-Eater of Malgudi* the religious symbols are at the core.

> I hung up a framed picture of Goddess Laxmi poised on her lotus, holding aloft the bounties of earth in her four hands, and through her grace I did not do too badly (p 1).

The Goddess of Laxmi is the Goddess of wealth and is usually worshipped by the business class. Her picture is often hung in the business establishments owned by Hindus. It is implicit that the narrator is a Hindu and a businessman. Hindu mythology says Laxmi had adopted the flower lotus to be her seat so no wonder she is on it. For an Indian reader it is redundant information but perhaps Narayan had Western readers in mind so he mentioned this fact.

Tsitsi Dangarembga's (Zimbabwe) (1988) *Nervous Conditions* is a first person narrative and the narrator Tambudzai instead of calling characters by personal names addresses them by the kinship terms like 'sisi', 'mukoma', 'babamkuru', 'babamdiki', etc. Along with the kinship terms she brings in the social status and roles attached to these characters. The eldest of the brothers, in spite of his semi-permanent absence from the native place, is the head of the family. His wishes and desires are obeyed by every one and would sound exploitative and elitist to a non-native reader. But to a native reader he sounds justified and normal. If his relationship with women relatives is examined he will sound very chauvinistic to a non-native reader. It sometimes becomes unavoidable to use native terms in explaining culture specific, geographical, religious and such other concepts in writing in English as Dangarembga does. She uses words like 'tuckshop' (an

immobile shop on wheels often placed in front of house), 'roora' (marriage process), 'rumba' (W. African music), 'sadza' (traditional meal made of maize), 'dara' (platform made of wood to dry grain or utensil), 'nhoda' and 'pada' (entertainment games played by young children), which are neither part of the English lexicon nor meaningful to non-native readers. Any non-native reader reading this text would also have to undertake a bit of sociological study of Shona (Tsitsi's culture) culture and society.

Sylvia Broady's (England) (1988) story *Christmas Time* was perhaps written with radio readers in mind as the story was broadcast on radio but never available to readers in print. Reading through radio and television is now a popular form because of the growing popularity of the distance and open learning institutions. By the title of the story any one would believe that the story is about Christmas celebrations but to one's amazement the story is about the Christmas Eve in the year 2000 where a "space wife" (lonely wife of a space commander) is trying to rescue three children, whom she detects on her "time machine", who have got lost in space and are "trapped in time gone past and wish to return to the present time". Even though it is year 2000 the children are in the year 1900. She tries to "reject and reset keys" but the machine does not take commands. The story clearly reflects high familiarity with modern communication jargon to which many readers of English may still be ignorant.

## 1.5 COMMUNICATION IN MEDIA TEXTS

Since the practice of making films based on literary texts has become popular two important changes have occurred in reading habits. More and more readers rely on the filmed version of the text and the reading habit from the printed copy (which is now known as the hard copy) is declining. The details which authors

put in to create a milieu to situate a text get lost in a film adaptation. These are to be interpreted as descriptions and are not mentioned in the verbal language; new readers of films who do not have training in 'reading' films very often don't pick up these. It is perhaps important in teaching literary texts that students be prompted to see a video text only after the student has read the printed version.

A second important difference is that producers edit the texts to fit the film format and in the process recreate the texts. The recreated texts, when distributed on VHS format or shown on public system television network, are watched by a much wider audience than would be read in print. The filmed version of the text becomes the more popular and often the authentic text. This has recently been witnessed with two Indian texts *Ramayana* and *Mahabharata* which have been made into popular soap opera. As these texts are very long and in dialects of Hindi which are not spoken any more they had ceased to be popular texts. Since the time it was serialised these are oft discussed in academic and social circles but reference is invariably made to the TV version of the texts and not the original written texts.

Because of the copyright rules and the financial implications involved it often appears to the producers of electronic texts to take up old texts which are free of copyright obligations. However, reading an ancient text would involve the understanding of its contemporary society and in the absence of adequate social and cultural information and understanding of the text the interpretation may be weird. The argument given in favour of showing the above mentioned texts on the public media by the producers and right wing politicians was that the two above mentioned texts are not Hindu texts but cultural texts of India. They argued that showing these texts to people would help create national culture and define national identity. The sub-text was the revivalism of Hinduism. The masses read

what the right wing politicians wanted them to read. The protagonist of *Ramayana*, Ram, is today the most popular of the Hindu Gods because the text has been given a new life in contemporary India and we have seen the repercussions e.g. Hindus and Muslims fighting at Ayodhya. Today people like to draw comparisons from *Ramayana*.

Both the above mentioned soap operas were shown on BBC 2 in UK but they failed to attract the interest of natives because of the unfamiliar symbolism used in them. Works originating from a native culture have some familiarity. This familiarity might be at the lexical level, where the unit of analysis is word or the sign, where the analysis is attempted through the process of creation of literary sign as a social symbol. Radcliffe-Brown the social anthropologist rightly points out (although in the context of kinship terms) that "It is a mistake to suppose that we can understand the institutions of society by studying them in isolation without regard to other institutions with which they coexist and with which they may be correlated ..." (1952 : 17).

The reason behind the popularity of the above mentioned texts in India and the lack of success of these in the UK was that the viewers in the UK did not understand any of the symbols in the mentioned soap opera whereas viewers in India found most of the elements (symbols) common to their lives today.

The above paragraphs have four important points:

* not only the illiterate but also the literate and the educated believe more in what they see than they read so it proves visual symbols can establish a very important symbiotic relationship with written texts.

* social symbols have a limited life and circulation but they can be given a new lease of life through media presentation.

* non-native visual symbols cannot be understood independent of explanatory notes and so written (or printed) text along with visual and auditory symbols can only together be successfully employed in teaching non-native symbols created by foreign authors.

* the editors/directors of media programmes enforce personal ideologies and biases through their production which readers should be able to understand.

The hypertext created by Cady et. al. (1988) on Edgar Allan Poe's 'The Masque of the Red Death' is a good programme to be discussed here. It has as its aim to promote a 'sleep and start' manner of reading instead of linear reading and to give a 'holistic experience'. Every 'card' of this programme has three buttons: 1) to inform about the social facts and literary devices used in the text 2) to bring to notice and explain stylistic features and 3) to explain the symbols used in the story. Minute stylistic study has been made to make readers aware of the deep meanings of cultural and social symbols. Synonyms and antonyms of the words are also given. Difficult words and concepts are made into 'definition' and 'explanation' buttons. Notes explain the physical world like the architecture of the palace and the colours used or the symbols like blood, light etc. used in the story. At the end of the text a short biography of the author and references to a few of his works are also made. Another very useful element is the availability of meaning of a number of words used in the story. Added to this is the facility of keeping a record of the words which the user wanted to know the meaning of but which was not available. At the end of the session the user can print the list of

unavailable words s/he wanted to see. Even though limited use of audio-visual material is made, the use of picture is striking in explaining "Castellated abbeys". As the user clicks on this word a picture pops up instead of an explanatory text. What the picture does here a thousand words could not have done. Use of sound is made only in turning pages but if it was made to produce pronunciation of selected words it would have been better use of *'memory'* for non-native learners. Cady et. al. requisition the teacher's involvement but aim only to explain the structure of the hypertext, not to influence the reading process.

One very important aspect of text is the authority of the author. The author controls the chain of thought through the use of words and format. This is of paramount importance because of the creative genius of the author who chooses appropriate words which evoke the unique response in the readers. But in the film format the authority is subverted to the director and in the authoring electronic text quite often the authority shifts to the reader where text can be manipulated and changed by the reader. Authors are not reporters but creative thinkers and as such they create a new world through their writing, so diligent effort to situate the text might not be a fruitful effort. In creating the world of 'Masque of the Red Death' Poe has mentioned a fictitious disease as Red Death. He writes :

> The Red Death had long devastated the country. No pestilence had ever been so fatal, or so hideous. Blood was its avatar and its seal -- the redness and horror of blood. There were sharp pains, and sudden dizziness, and then profuse bleeding at the pores, with dissolution. The scarlet stains upon the body and especially upon the face of the victim were the pest ban which shut him out from the aid and from the sympathy of his fellow men. And the whole seizure, progress, and termination of the disease were the incidents of half an hour.

In an effort to explain the 'Red Death' Cady et. al. say

> There is no such illness exactly as Poe describes the symptoms. He might even have had in mind measles since it was responsible for the death of many children during Poe's lifetime.

Here the 'might' does not perform the function of 'might'. Once this possibility of 'Red Death' being measles is evoked in the mind the reader's imagination of the author's created world becomes dysfunctional. In the story *Christmas Time* mentioned above the director has included clippings of two Christmas carols which were just mentioned in the story. This will inevitably bring in the reader's mind the milieu he has experienced in singing Christmas carols or reading about them.

Every literary creation is like scientific invention in some sense. It is the end product of a whole set of experiments and research. Just as no invention can take place in vacuum no great piece can be created without a strong literary tradition (Eliot 1920, '69). So to properly understand a work we will have to understand the process of its creation. This process will involve cultural, literary, social and political histories. As against the process of creation we also have to take into account the creative unconscious of the individual. For the simple reason that only exceptional individuals show signs of genius and creativity we need to follow their process of development. Great minds belong to a time and a place but they tend to be universal in appeal. Eliot's masterpiece 'The Wasteland' brings in images from different periods and places. Essentially what is being emphasised is that the process of reading should involve a synchro-diachronic approach. Starting from the time, place, person, circumstances etc. of the work to the culture, society of the author and his milieu.

This approach to reading is further strengthened by Roland Barthes' distinction between 'work' and 'text' (already discussed in 0.7.2.).

## 1.6 INCOMPARABILITY OF TEXTS

When we say that authors should not be compared I am not undermining the practice of comparative study in literature. Comparative study as an area of study is useful and relevant for identifying literary universals and differences. But authors and texts are not comparable when it comes to pieces of literary works as an individual's creative act or as the representative of a social and cultural group. Literatures are incomparable on two levels: one on the level of time and the other on the level of issues. Issues again involve two aspects : the topic of writing and the background of the writer. The factors which influence the treatment of the issue would be factors like prevalent politics, religious belief, sex of the writer and others at the time of writing a piece. For example in a text a person found in an incestuous

| Time | 18th Century | 18th Century | 19th Century | 20th Century |
|---|---|---|---|---|
| Place | British | Indian | | |
| Religious Beliefs | Catholic/ Protestant | Hindu/ Muslim | | |
| Issues | | | | |
| Abortion | | | | |
| Single parent | | | | |
| Colonialism | | | | |
| Nature | | | | |
| etc. | | | | |

relationship might be stoned to death (according to Islamic practice) or made an outcast and left to suffer (according to Hindu practice) or just left unaffected (according to western liberal practice). The treatment of the incident will vary

according to the time and the social and cultural background of the author. It is the time factor which makes or does not make a work readable. D.H. Lawrence is considered a major writer today but earlier his books were discarded by some as semi-blue writing and not recommended to be read by genteel people and prescribed in university syllabi. Lawrence's *Lady Chatterley's Lover* was banned for some time. Salman Rushdie lives in the nightmare of death on account of his book *The Satanic Verses.*

Even though the practice of single parent has existed in the West for decades, in India the first recorded case where a woman refused to declare the name of the father of the child was only in the mid '80s. As such it is unlikely that we find reference of any issue related to single parent in literature originating from India. On the contrary in *Mahabharata* we have reference to Kunti who gave birth, like the Virgin Mary, to a son who was given to her by God. Even though this was an isolated and exceptional case what is noteworthy is the existence of the idea of bearing a child without being bound by the social norm of marriage. For the majority of people in contemporary Indian society the place of woman is behind the curtain meaning not recognised as an equal to a man in the social setting; in the *Mahabharata* the sons were known by the mother's name like *Kunti-putra-Arjun* (Kunti's son Arjun). Also India, where very little knowledge and information on sex is seen, had once produced a world classic like *Kama-Sutra* which remains one of the best treatises on sexual practice.

On the basis of the above mentioned facts emphasizing the 'contemporaneity of information we can say what are important in the study of a text are social and historical factors rather than the comparison of texts from different cultures. Texts can be compared only in the light of information about different societies and the author's background. Literature is a system which derives its meaning

from its relationship to the literary tradition which it belongs to and what Eliot (1920, '69) calls 'literary tradition', an author's background and other factors.

Comparison of texts can be found useful in teaching linguistic devices. Creative and innovative use of language by authors can be demonstrated by comparing extracts from the writings of different authors. Sometimes texts have been scanned to be presented in the electronic form (computer screens). Such a format is used quite often for concordances and the stylistic study of texts. But the objective behind concordances and stylistic study is to train student-readers in the nuances of language. If the machine does the concordances then the objective is lost. Also, reading these texts is quite strenuous to the eyes.

It was mentioned as one of the aims of the chapter to discuss the different forms in which literary texts can be presented because texts in English emanate from different parts of the world, written in English but containing overtones of social semiotics. The context and the form also differ because of the forms of media the text is presented through. The implications for this thesis are twofold - first is to bring to notice what the processes of adaptation do to the text, and second the gap that exists between India and other cultures and the 'noise' that may be caused in communication. Through my study of *Man Eater of Malgudi, Nervous Conditions* and Christmas *Times* I have tried to highlight that a text is not solely the creation of the author but is a product of the tradition, literary and cultural, to which the author belongs. In essence two points have been highlighted

* the author as a creative individual is crucial to the making of the text but the society and tradition to which s/he belongs are also very important as they unavoidably determine the writer's attitudes, and

* the variation in language (textual and non-textual) are also important factors in the interpretation.

These points will have two implications in the development of the multimedia programmes :

* adequate socio-semiotic information on the author's life and his contemporary society should be provided and

* on-line information on lexical items including idioms and metaphors through pictorial and musical means should be made an integral part as these seem to be crucial in the interpretation of texts.

As it will be obvious, learning from multimedia will not only require ability (i.e. literacy) in orthographic form but also competence in other means of communication like pictures, videos, diagrams and also sub-texts of media adaptation.

## 1.7 SIGNIFYING PROCEDURE AS A FACTOR

Even though the teaching of words is important in teaching a foreign language and literature the same words and objects could hold different meanings for two people from different cultures. For example so many of the towns, rivers, animals etc. are sacred to Hindus and are said to have supernatural connection. Every Hindu aspires to take a bath in the river Ganges at least once during his/her life, because it exonerates one of all sins as the river is said to have originated from the head of Lord Shiva. An author would simply refer to an old man travelling to take a bath in the Ganges, but it would mean more to a native reader

than to a reader of a different culture because "literary language is far more deeply involved in the historical structure of the language; it stresses the awareness of the sight itself" (Wellek and Warren 1949-'61 : 13). Wellek and Warren further go on to say:

> traditional literary devices as symbolism and meter are social in their very nature. They are conventions and norms which have arisen only in society. But, furthermore, literature "imitates" "life"; and "life" is, in large measure, a social reality, even though the natural world of the individual have also been objects of literary "imitation". The poet himself is a member of society, possessed of a specific social status: he receives some degree of social recognition and reward; he addresses an audience, however hypothetical. Indeed, literature has usually arisen in close connection with particular social institutions; and in primitive society we may even be unable to distinguish poetry from ritual, magic, work, or play. Literature has also a social function, or "use", which cannot be purely individual. Thus a large majority of the questions raised by literary study are, at least ultimately or by implication, social questions: questions of tradition and convention, norms and genres, symbols and myths (op. cit. : 89).

The opposite but equally convincing argument is given by reader-response theorists. Critics such as Iser believe an author only accomplishes the first half the 'artistic' process; the second half, the 'aesthetic' process is accomplished by the readers. Iser (1972) says:

> For this reason, one text is potentially capable of several different realizations, and no reading can ever exhaust the full potential, for each individual reader will fill in the gaps in his own way, thereby excluding the various other possibilities; as he reads, he will make his own decision as to how the gap is to be filled. In this act the dynamics of reading are revealed (p. 285).

It is quite important for the appreciation of a literary text to let the reader's imagination fill the gaps, but then the reader's imagination might fail to make any

sense of the author's cues because of the unfamiliarity of the reader with them. This is an issue in teaching texts emanating from a different culture which can be tackled well by the use of audio-visual stimulus.

## 1.8 SUMMARY

Through this chapter we have introduced the expanding forms in which literary texts can be presented and their implications for the understanding of the readers/students. Even though I am aware that a number of critics challenge the concept of authorial text we have to accept that the process of communication starts with the author and s/he must have something in mind in writing a particular text. The text as an independent entity communicating with the readers and readers' own background and approaches also are important factors in the reading on non-native texts. The role of the media adapters is of special interest because the producers/creators of media adaptation present their versions of the text to the readers and this was also referred to. As the focus of this study is directed on the teaching of English literary texts through hypermedia in India we will in the next chapter look more closely at the implications of teaching English through computers in India. We will also examine the definition of technology in the realm of teaching non-native literature.

# CHAPTER 2

CONTENTS

## 2.1 INTRODUCTION

This chapter is divided into two parts. This first part examines the place of language in communication and the place of English in the Indian linguistic and educational context. In India, as in any other developing country, education takes a back seat due to lack of will and commitment. Indecisions and as a result ill-decisions are taken casually by the governments on behalf of groups and communities* . Polemics for and against educational issues are put forward without caring for larger, actual and real interest. Profession and practice of the politicians and bureaucrats do not show any consistency. In new democracies language (in society and education) is always a major issue on the agenda. English appears as a viable alternative with few supporters but a large number of sympathisers and adopters. English is often mistaken as English Literature. This brings with it hatred and animosity against past rulers. This is exactly the same situation as is Hindi being dubbed as the language of the Hindus and of northern India. All regional parties and separatist movements reject Hindi in the first place. Animosity against English is more philosophical and ideological than real. The honest will suggest a better approach and policy for teaching English. It may out of compulsion emerge as the official language and the *lingua franca* of the country. Problems and methods of teaching English in India are discussed at a later stage in this section.

The second part of this chapter argues that simpler techniques explaining visual symbols (the referents) like illustrations, annotation of texts with commentaries, explanations, word meanings, maps and pictures are not sufficient for conveying the message in culturally displaced (i.e. foreign language) texts. The definition of

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* I am not taking up the financial aspect of educational technology because Education in India is free and often the budget is not a matter of concern for the academic. Students may get access to the technology not because they can afford it but because the university plans to have it.

technology in relation to the teaching of literature goes beyond the machine-tool definition and into the hermeneutic sciences which say that the message of the literary text lies above the lexical and syntactic levels in the 'creative unconscious of gifted individuals'. The transfer of the message has not been successfully achieved even with the combination of different media. Literary texts create an overall impression with the help of pieces of information, and hypermedia seems to promise a medium for providing explanations which would help convey the 'essence' of the texts.

The aim of this chapter is to justify the continuance and promotion of English through the use of modern technologies in India. The role and application of modern technology in explaining the non-literary symbols is also discussed in this chapter to justify the use of technology. In teaching non-native literature the definition of technology will have to be defined - and Part II of this chapter aims to define technology for literature teaching.

## PART I

## 2.2 USING TECHNOLOGY FOR TEACHING ENGLISH IN INDIA : SOME IDEOLOGICAL ISSUES

### 2.2.1 NATURE OF COMMUNICATION

The function of language and printed material with the help of audio-visual gadgets is to communicate. The business of literature is also communication. Language is the tool and literature the skilled technique. Other means of communication can be employed to decode the skilled technique of literature. Roland Barthes makes us believe through his study of fashion design that even an

engaging advertisement or a beautifully dressed woman is literature in that sense. The method of encoding is the literature and the means the language. Whether it is literature, a piece of criticism, a film, a photograph or a computer programme they all try to present or explain in the best possible manner the existing objects, concrete or abstract. In attempting to answer the question "Is the reader or the text the source of meaning" Stanley Fish (1980 : 1) in context of *Paradise Lost* says that "the thesis of that book is that *Paradise Lost* is a poem about how its readers came to be the way they are" (op. cit. : 21). It is, according to Fish, definitely then addressed to a Christian audience if not to Western White Christians. A Hindu reader from the East who has grown up in a tradition which says you are privileged and have a place in the best species because of good acts in previous lives would not be able to reconcile to the idea of the sinfulness of nature and redemption. It is the shared values and shared traditions which make a text relevant for an individual from a particular society.

The gap that a culturally displaced reader experiences in reading a text like *Paradise Lost* or the more subtle symbolism of Hemingway in *The Old Man and the Sea* where the old man in all his activities and postures reflects Biblical imagery means that the message could be severely 'distorted' or misunderstood. Fish further says "the difficulties one experiences in reading the poem are not to be lamented or discounted but are to be seen as manifestations of the legacy left to us by Adam when he fell" (op. cit. : 1). Even as late as 1980 it did not occur to Fish that there could be a reader who not only did not live in the legacy of Adam but was not even aware of his existence. For teaching texts with Biblical imagery it would be equally important to inform the reader of the story of the Bible as it would be to read the story of the *Mahabharata* before reading Ramdhari Singh Dinkar's *RashmiRathi.*

Ideology operates at three levels in terms of teaching literature through new technologies in a developing nation like India. The first and the most important level is that of the selection of language and its literature, the second is of the selection and distribution of texts written in that literature and the third is of the selection of media and its application.

### 2.2.2 SELECTING A LANGUAGE AND ITS LITERATURE

In India fifteen languages are accepted as national languages but none of them has speakers distributed nation wide. None of these languages (except perhaps Hindi) is taught effectively in more than half the states. Except for Hindi (which is spoken by more than 50% of the population) no language has acceptance in more than one state. Hindi faces strong opposition in southern states and politically disturbed states like the Punjab, Jammu and Kashmir and the North Eastern states. Hindi is perhaps seen as the state patronised language and all other languages as regional languages. Hindi besides being rich in vocabulary and literature is the language of the majority in India but the regional political parties and leaders have charged the atmosphere so much against Hindi that it is difficult for Hindi to be accepted as the official language, *lingua franca*, or the language of inter-state communication. English is the only language which provides a medium for inter-group communication of all types cutting across all boundaries.

### 2.2.3 IN DEFENCE OF ENGLISH

Of all the limbs in human body the hand signifies power and the pen or writing skill signifies extension of power or the power in modern literate society. The power or capacity to write (or express) in English epitomises that power. Kachru (1986 : 1) puts the situation as:

> Competence in English and the use of this language signify a transmutation: an added potential for material and social gain and advantage. One sees this attitude in what the symbol stands for; English is considered a symbol of modernisation, a key to expanded functional roles, and an extra arm for success and mobility in culturally and linguistically complex and pluralistic societies ... Knowing English is like possessing the fabled Aladdin's lamp, which permits one to open, as it were, the linguistic gates to international business, technology, science, and travel. In short, English provides linguistic power.

English is today spoken by the largest number of people (if we include the speakers of English as second language) and is also the largest published language i.e. it is the largest used language for spoken and written purposes across continents. Most languages have contiguous areas of use. Some languages might have 'islands' of speakers separated from the mainland as legacy of colonialism but English exists in most (if not all) of the Commonwealth countries not as a legacy but in its own right. The wide distribution of writings of creative writers from different continents and competing for and winning the prizes for writing in English from time to time proves it is no more the white man's language.

Before I go further in justifying my stand in favour of teaching English I will hasten to add that an argument in favour of English does not mean replacement of all languages from all domains by English. I don't think English and other languages are in binary opposition. There can be no denying that oriental languages hold treasures but the 'pragmatic' language for modern man and society can neither be an Oriental language nor any other modern language.

A remarkable fact which should not be and cannot be ignored is the use of English for building arguments against English. The freedom movements in India and

other countries under British domination have been organised by speakers of English because this was the only common medium of expression between people from different parts of the countries. Ironically the language of all deliberations and planning intended to promote Indian languages and in a way replace English is English. It is well documented that the overwhelming majority of these bureaucrats are from English medium schools and their children now are going to the same set of schools. Jawaharlal Nehru, the first Prime Minister of India, who was in charge of propagating and implementing Hindi as the national language was educated at Cambridge. He sent his daughter Indira Gandhi to Cambridge for higher education. She later became Prime Minister and was responsible for Hindi's implementation. She sent her son Rajiv Gandhi to Cambridge. Later Rajiv became Prime Minister and he looked after the implementation of Hindi. He, in turn sent his son to Harvard for higher education. The situation cannot be expected to be different till the bureaucrats and decision makers of today and the bureaucrats and decision makers of the next generation (presently being trained in public institutions) are kept away from becoming decision makers. But this would mean taking a bold and arbitrary policy decision like Egypt and the Socialist countries of adopting a native language for all purposes. Time has proved such impulsive political stunts have not worked. Russia, China, Japan, Germany were some such nations which gave up English and employed the native language in all domains of society including science, technology and education. All these countries have now taken up the teaching of English in a big way.

### 2.2.4 EDUCATIONAL TECHNOLOGY IN THE INDIAN CONTEXT

In the Indian context where generalisations are not possible because of the diversity in available educational resources multimedia would have a varied definition in variety of combinations. Whereas on the one hand we have all

machines and media available for instruction in some of the towns and cities, on the other we don't even have a blackboard on which the teacher can write and explain to his/her students. Instruction at one place is given through traditional means of primers and text-books and at the same time at another place through television broadcasts via satellite. Efforts are being made to make a full channel available for educational purposes. In the last decade India witnessed a rapid expansion of its radio and television network. Nearly 95% of the population has access to these media; often through a community set in the neighbourhood. In institutes of higher studies and institutions placed in towns and cities more and more use of computers is being made. It might be said that the growth in consciousness and use of technological media has witnessed revolutionary change. Hawkridge et. al. (1990 : 125) summarising the Indian situation aptly say "There is a wide spread of technological capability, ranging from that essentially 2000 years old, to futuristic twenty-first century aspirations ... The image that captures modern India is that of the sacred cow grazing in the shadow of the satellite dish".

As far back as 1956 the 'Poona Pilot Project' was started. This was a radio project for general rural awareness. The impact of the project was studied by Dr. Paul Neurath (1960) and reported by Schramm (1977). The project was run in 144 villages of Maharastra. Fifteen to twenty willing members at each centre met twice a week for a period of ten weeks to listen to radio programmes dealing with agriculture, health, literacy, education, local self government and other aspects related to economic and social development. They also decided on an action plan and feedback was sent to the district headquarters about the response. Schramm, summarising Neurath's report, says "forum members learned a great deal more about the topics under discussion than did adults in the villages without forums; and in those non-forum villages, most of the learning gains were made in the

villages with radio" (Schramm 1977 : 238). Schramm further reports that "the illiterate members of the forum actually gained more than the literates". Regarding implementation he says at least six decisions for action were taken every session and "pictures and observational evidence indicate that at least a number of them were" (op. cit. : 238) actually implemented. The cost of the project was unimaginably low and the government decided to expand the project but bureaucratic red-tapism made it impossible to succeed. Even the crippled expanded form Schramm says "despite its disappointing expansion in India, still looks very promising for developing countries" (op. cit. : 239).

The first use of television for teaching in India was made in 1964-65. This was for teaching 22,000 students in 227 schools around Delhi. The result of the project was once again very encouraging. The students did very well in visual questions and problem solving.

The second major use of television for mass education was made during the period 1st of August 1975 to 31st of July 1976. This was known as the Satellite Instructional Television Programme (SITE). The project was run with the help of National Aeronautical and Space Administration (NASA) of the U.S.A. SITE programmes were on agriculture, health, hygiene, science and technology, family planning, entertainment and national news for 2400 villages in Andhra Pradesh (A.P.), Bihar, Karnataka, Madhya Pradesh (M.P.), Orissa and Rajasthan simultaneously. This was also seen as successful.

On the encouraging results gained from the previous projects the University Grants Commission started a nation-wide television programme on the 15th of August 1984. The programme is now known as the 'Countrywide Classroom' and this includes programmes for higher education (in English language). The

programmes are telecast twice a day and have become very popular all over the country (for details see Sharma 1989).

The same year (i.e. 1984) an ambitious Computer Literacy and Studies in Schools (CLASS) project aimed at "curriculum change, establishment of an indigenous educational software industry and a government owned computer manufacturing industry" (Hawkridge et. al. 1990 : 127) was started. Hawkridge et. al. (ibid. : 129) says "Implementation of the initial co-operative training was accomplished with almost breathtaking speed, and great success". Alongside the computer literacy, hardware manufacturing was taken up by the government-owned computer manufacturing plant at Chandigarh. Simultaneously a special purpose chip to display Hindi text in Devnagri script was developed by CMC in Hyderabad.

Introduction and use of computers often faces two criticisms in India : first of being elitist and the second of being urban. A.K. Jalaluddin the Director of the CLASS project answering the first says "far from promoting elitism, the introduction of computer[s] can only help break down social barriers. The private schools have already taken up computer education and it is only the public school students who are denied this opportunity. CLASS would bridge the gap". This is a valid argument which is a fitting answer also to the argument that English is the language of the elite and the urban.

Regarding the computer being an urban discipline the Chairman of the Madhya Pradesh Council for Educational Research and Training commenting on the acceptance of computer education in this state said "We were worried that schools in remote areas might be hesitant, but we find that it is these very schools who are leading as far as acceptance of the project is concerned" (quoted in op. cit. : 139).

I believe this will be true of the whole nation. The rural Indian masses are no less adaptive than the urban. If given an opportunity they would like to go for it.

Responding to these national aspirations the New Educational Policy of 1986 lays special emphasis on computer education. A special Working Group of the Education Ministry, Government of India, formed to suggest measures for expansion of computer education laid emphasis on indigenous software for computer education. The report says "A well-planned and continuing, large programme of software is very essential for the success of CLASS programme and it should be supported by as much financial support as is required. Economy in this field would be counter productive". (Government of India, Department of Education. Quoted in Hawkridge et. al. 1990 : 142)

### 2.2.5 TECHNOLOGY AND IDEOLOGY

I accept the thesis that technology carries an ideology with it howsoever neutral it may appear. Even the word-processors carry an ideology in the sense that they force a definite format of say 'Word' or 'Works' or even of systems like 'IBM' or 'Macintosh'. They divide the whole world of writing into followers of one format or the other. This has been very aptly said by Chandler (1992a : 172) as "Using a computer in any application can transform one's intentions according to an in-built but explicit ideology ... the language of the computer culture threatens to define the world in its own terms". But this is too basic a level to stoop to. After all the question that would precede this would be to write or not to write. I am tempted to quote Pattison (1982) which exactly proves the point :

> Cadmus is said to have sown the dragon's teeth that raised a crop of warriors. On Greek soil the alphabet, once established, also bore a mighty crop, one that cannot be explained solely by the technology of alphabetic

> writing or by improvements in this system made by the Greeks when they refined the signs for vowel sounds. Writing did not make the Greek mind sceptical, logical, historical, or democratic. Instead it furnished an opportunity for these predispositions to flourish. ... Language was also the medium for obtaining what they considered the highest form of human satisfaction, knowledge won by human endeavour and modesty indulged with a joy impervious to the vicissitudes of life (p 45).

Computers, and for that matter 'print' and 'electronically recording' devices, kill the traditional oral culture. Students no more remember tables and poems by heart and rely instead on calculators and anthologies. It was *fait accompli* ever since the art of writing was invented. It might be true that many more people knew about many more texts then than people know now because it involves learning a 'new' technology of writing but we are already at a point of no return. Plato perhaps held the same view when he said of writing that it

> would impair the memory, by tempting men to neglect practising it. They would rely on written memoranda, and so get the habit of referring to outward symbols impressed on alien material, rather than to those stamped on the tablets of the brain. Hence writing is an aid, not to memory, but to reminiscence; helping them not to retain impressions but to recover them. (Plato's Phaedrus 1868 Sec 275 Notes and Dissertation by W.H.Thomson : 136 London: Whitaker & Co.).

Sharma (1992) summarises the point when he says "We know that Socrates did not leave anything in writing. His disciple, Plato, wrote prolifically and extremely well but did not have much faith in the written word as a means to proliferation of growth of knowledge. To Aristotle, Plato's pupil, the written word was very much a fact of life and a tool of thought" (p 13). The plot and story of texts like *Ramayana* and *Mahabharata* which were in ancient times orally transferred from generation to generation are not even clear to most of the Indian students.

If we compare print, audio and video to the hypermedia technology it carries an individual 'producer's' ideology only to the extent that the software is developed by an individual and it perpetuates this individual's format. But this would be free from ideology in the sense that in the modern authoring programmes the presentational format itself can be changed to the user's liking and in teaching programmes the criticism would be developed through the readings of a number of readers. The critical pieces put with the text would be optional for the reader. He can read one or the other or none at all.

### 2.2.6 IDEOLOGY, TECHNOLOGY AND LITERARY AUTONOMY

Learner autonomy is an oft discussed and fortunately recognised area but major ideological issues in the schooling system are still not highlighted. School itself is an ideological symbol. The establishment of institutions like 'public school' 'private school' 'grammar school' and in the most Commonwealth countries 'English medium school' are ideological and status symbols. Once the student decides to come to a school he tacitly accepts to follow the norms set by the school. It is difficult to say whether these norms are the best or not but those who can give up their own way and adapt the 'rules' of the school are certified successful. Some of the teachers now accept "the skills and mysteries of academic scholarship are not for the most part generalizable to other professions and, thus, are not necessarily useful to our students, most of whom do not want to take up scholarship as a profession. Nor do all our students share our middle-class concerns and values" (Cooper and Selfe 1990 : 849). The computer with its value neutral platform can perhaps provide a common platform to all. Here bully and the vocal cord won't be allowed to steal the floor. Cooper and Selfe (1990 : 848) say

> ... these computer conference discussions are what we often hope in-class discussions will be: discussions in which everyone investigates problems and ideas of common concern. The discussions are focused on the topics of the course and explicitly bring in ideas presented in the readings. But because entries in computer conferences are written, students do not have to compete for the floor and can say as much as they want to without being interrupted, although they still must be responsive to the interest of their classmates if they don't want to be ignored ... Unlike journal entries, though, computer conferences are public exchanges within a group of participants, and so the entries also exhibit some of the same intellectual synergy of group discussions or conversations in which individuals respond directly to what others say.

Through the above paragraphs I have tried to build an argument that on-line multimedia presentation can successfully provide a platform to a group for discussing texts and at the same time not let the readers be persuaded by the ideology of others. Unlike 'creator' centred linear texts (e.g. books, TV, radio etc.) the reader can have self-designed hypertextual texts for the same piece of information. In the next paragraph I will discuss the usefulness of on-line multimedia for the author of texts whose importance cannot be underestimated in the literary process. Writer autonomy or author autonomy is an area which also needs to be looked into. We have examples of Alexander Solzhenytsyn, a victim of state repression and Salman Rushdie, a victim of state perpetuated religious fanaticism. In the earlier times it was the Church and in the present times it is the state which is the most powerful ideological apparatus. The Iranian Government is trying to supersede the freedom and right to expression of an individual. The state not only applies a social pressure but also applies brute force. The autonomy of the individual is superseded by the will of the state or the majority. George Orwell's *Nineteen Eighty Four* would be good reading to understand how the production and/or interpretation of literary creation can be manipulated. Access to on-line distribution of texts would free writing from such subjective

considerations. The function of writing and textual criticism should be like a free economy or market economy where sale of all goods is permitted and the producers of best goods would sell the most. So many different methods and schools of interpretation have come up but not all have succeeded in making a mark. Most of them are not referred to beyond a period of time. Only a few are remembered and applied for centuries. Plato or Aristotle were not the only critics of their time but they are the lone remembered and read critics from their time. Likewise populist writers would be lost on the sands of time.

It can also be argued that no text can be analysed or explained by any single method of critical analysis because we can never be sure of how many different points of views and schools of thought the author was influenced by. Influences from different schools of thought would be explained much better if put to different tests. Hypertext is an important and significant development in this direction because it not only promises to provide improved learner control (which includes the author because these are authoring programmes) over a knowledge base; it also promises digitised real time international distribution of information.

## PART II

## 2.3 TEACHING FOREIGN LITERATURE THROUGH MULTIMEDIA

### 2.3.1 INTRODUCTION

The first problem in reading a foreign literature that a non-native reader faces is in understanding the words or lexical items. Most writers (particularly writers writing in their mother tongue) use language with the ease which perhaps all non-native readers are not able to understand. This problem is increased when the language is one which is used as a second language in the reader's society. To be

explicit it is much more difficult to understand a text by an Indian, written in English by an English person because s/he uses the same words to mean something different from what the word is used for in the reader's native society. The reason for this is that the same words are used by non-native authors and also by native authors to mean two different things. For example 'pundit' and 'guru' are words which are used with very little 'weight' by British writers compared to what they hold in Hindi and used by Indian English writers. Without going any further I will like to specify the importance of the language-based approach supplemented by empirical evidence (to situate the *sign* through different media) to a text analysis.

Michael Benton has made some very interesting studies in reader response theory in the UK. Even though his target learners were school children (as opposed to grown-up university students of this research) he has some very important insights to offer. He says

> We need a new perspective on creativity, one that is less concerned with stages in a process and more with the mental space the author inhabits, the landscape of his imagination, the nature of his thinking. We need answers to such questions as what is happening in the mind when the writer taps his subconscious? . . . In short, we need a 'space-table' in order to lift the flat diagram of the creative process off the page and be able to visualise it as a three dimensional model" (p 7).

The process of teaching literature quite often raises the question of approach/theory. The natural demand of the student/learner to identify the approach of the teacher is justified as well as unjustified. This demand is justified because nearly all methods would be found to have been given a name whether it is author-centred, text-centred or reader-centred. The demand is unjustified because all teachers do not take a particular approach for the simple reason that

they don't subscribe to one and so they actually don't take a predetermined committed stand. My approach also, is not in favour of taking a particular theoretical approach or a group of literary theories to build my argument. I want to let the user have information on all possible approaches. I have already mentioned in the first paragraph of this thesis that my interest in this area is stimulated by the capability of media to communicate and the development of electronic media to provide a common platform to all different media. The communicational aspect of media quite naturally brings in the semiotic approach because semiotics brings to the fore most vividly the visual aspect of verbal language.

Later on in section 7.3.2 my problem will be mentioned more explicitly. The problem is based on my personal experiences as student and teacher of English in India. It convinced me that understanding (by the teachers and also learners) of the culture and milieu of the author is crucial to the understanding of foreign literature. The other aspect has been summarised in the form of the subsidiary issues above (see end of section 0.1) and will again be presented in the form of questions in section 7.3.2 below. The issue was 'whether non-native readers need to make an effort to understand the meaning of each word and phrase or was the overall idea of the text sufficient?'. This was obviously an issue involving linguistic analysis and the schools of criticism which gave an insight were language based like New Criticism, Formalism and Hermeneutics.

What will be apparent from the above statement is that the skeleton of the proposed programme is being built through ideas from media theories, developments in multimedia, and schools with a socio-linguistic approach like semiotics, formalism and hermeneutics.

I.A. Richards (through his Practical Criticism) before Louise Rosenblatt (1968 : 35 - 36; 1969 : 32 - 35) experimented with the immediate response of readers to the text and concluded that the readers bring along a complex network of experiences and ideas to analyse the text they are exposed to. Even though the present research is opting for a place for the readers' response and discussion it is important to mention that it is an entirely different situation from a reader approaching a native text. The majority of the Indian students coming to study English literature have nearly no idea of the English (British or American) literary tradition. To make at home and introduce such (student) readers my approach tends towards the New Criticism.

One predominant idea in literary appreciation has been that we enjoy the text we identify with. Rosenblatt (1968) hints at this aspect of identifying ('living through ... conflict ... paradoxes' (p 38); 'through identification with a character (p 40)) with the texts and characters for enjoying literature. This is another aspect which needs special attention in reading foreign literature. Issues and characters may be so different that such identification may never be established. Benton (1978b) rightly says

> The reader creates with the products of two imaginations, his own and the writer's (p 19)

For example an Indian reader will find it difficult to identify with the son of a single parent howsoever miserable the character may be because single parenthood is a great taboo still in India. The reader will need to have explained the social conditions and acceptance of single parenthood in the West.

Rosenblatt (1968) also refers to

> . . . our preoccupations at the time we read. Our own problems and needs may lead us to focus on these characters and situations through which we may achieve the satisfaction, the balanced vision . . . " (p 38)

One of the reasons for providing scope for readers' response on-line is to encourage such 'subjective' responses but the goal is to achieve a 'balanced vision' which could finally become part of the database; in this case of *Technocriticism.*

Even though the model suggested for *Technocriticism* does not subscribe to one particular or a group of schools of literary criticism the model is not necessarily in opposition to any school. Rosenblatt (1968) rightly says

> The teacher realistically concerned with helping his students to develop a vital sense of literature cannot, then keep his eyes focused only on the literary material he is seeking to make available. He must also understand the personalities who are to experience this literature. He must be ready to face the fact that the student's reactions will inevitably be in terms of his own temperament and background. Undoubtedly these may often lead him to do injustice to the text (p 51).

In this part of this chapter I will examine the nature of the linguistic sign in society and in a literary text and present the different technologies and linguistic approaches which can be taken to understand them.

### 2.3.2 DECODING THE LITERARY REFERENT

It is believed that through different 'matter of reference' a near perfect communication can be achieved. Louis Hjelmslev (1943) used this term to refer to the materials nature-specific to different media, even when their reference is the

same. A photograph, an oil on canvas painting, a sculpture, and an oral or written description can all refer to the same person, for example, but their matter of expression is photographic, oil on canvas, marble, phonetic or graphic respectively. When we see a placard with a railway engine on it we immediately make out that there is a railway station or a railway crossing or some establishment connected to the railways. Here the referent itself has become the message. To convey messages to those who cannot see a different language has been invented and this is named Braille. We have to think about communicating to people who are separated by thousands of miles but want to enjoy the same language and its literature. The verbal and written languages fail at times. To decode literature we need language(s) - words, pictures, imagery and many more tools. This is the technology, in educational terms, of teaching literature.

## 2.3.3 DEFINING TECHNOLOGY

Before I go on to discuss the methods of application of hypertext as educational technology for the teaching of literature I would like to discuss the two key terms 'technology' and 'language and literature'. My definition of the word technology is derived from three major disciplines. The inspirations come from hardware technology (the mechanical and the electronic sciences) the Behavioural sciences and Literary Theory. I will first discuss the definition in this order.

### 2.3.3(a) The machine-tool definition

On hearing the term 'educational technology' the image that comes to mind is of electronic media gadgets like tape-recorders, slides and slide-projectors, language laboratories, TV and VCR and other sophisticated electronic machines. Educational technology is not only related to teaching machines i.e. tools

technology. Educational technology would include all other media like blackboard, books, pictures and cartoons, toys and models and of course a human teacher. It would be apparent that technology derives its meaning from the qualities a tool or a technique has to communicate. A computer as an electronic device is part of technology because it helps to store data or information and make it accessible whenever needed and perform logical and mathematical operations when stimulated. But the technique and individual skill involved in preparing the computer software is also part of the technology. Both the machine and the lesson planning together become technology, in this context the technology of education. Ivor K. Davies (1981) has rightly said that educational technology is both a science and art "as a value-laden process concerned with the quality of human achievement and performance". *The Dictionary of Education* (3rd ed.) McGraw Hill book Co. provides a definition of the term. It says

> Educational technology is the application of scientific principles to the designing and implementing of instructional systems, with emphasis on the precise and measurable educational objectives, learner-centered rather than subject-centered orientation, strong reliance on educational theory to guide educational practice, validation of educational practices through empirical analysis, and the extensive use of audio-visual equipment in instruction; also used in a more limited sense to describe a reliance on equipment oriented instructional techniques such as computer-assisted instruction, simulators, multimedia presentations, and media-based self-instruction (see figure 1).

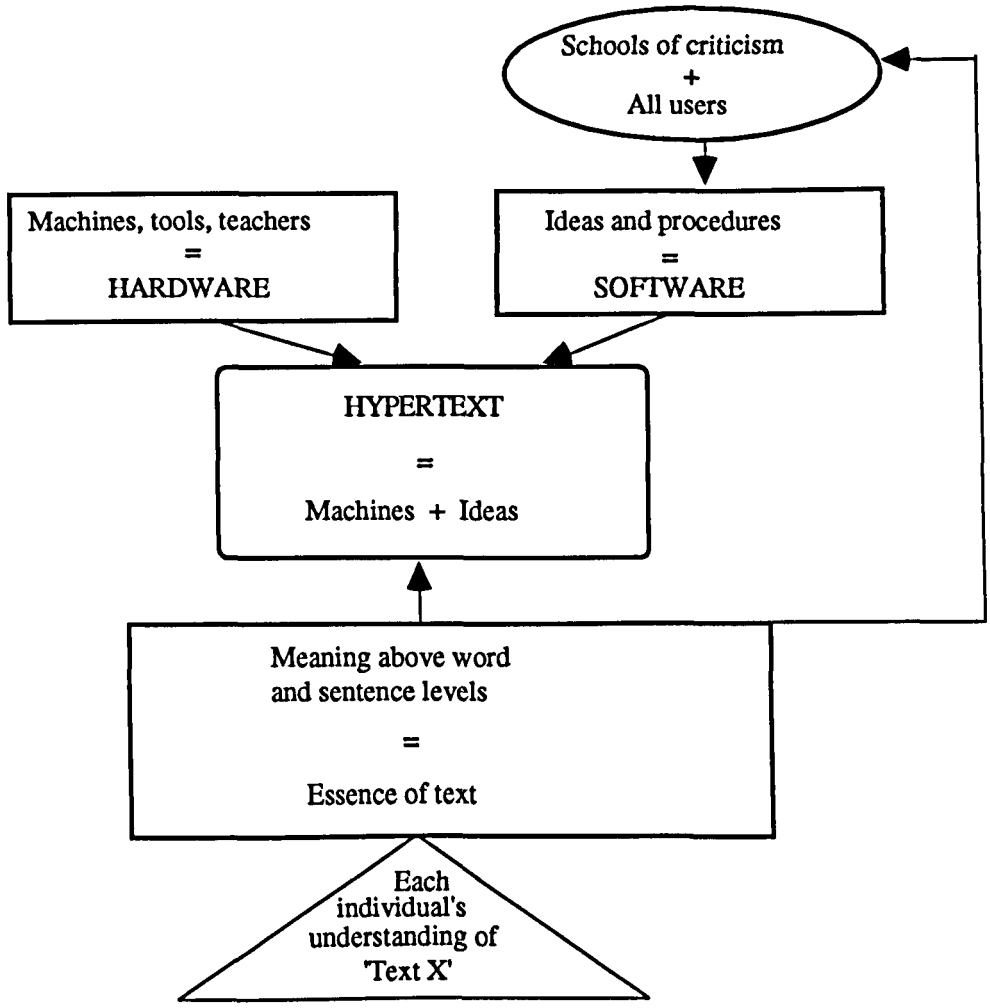



Figure 2.1 : Technology of teaching literature.

### 2.3.3(b) The Behavioural definition

Without the application of knowledge from different disciplines and particularly behavioural sciences the term would only denote the audio-visual aids of educational technology. The audio visual aids focus only on the teaching aspect. Educational technology is not only the use of man, machine and matter but "an effective technology of teaching derived not from philosophical principles but from a realistic analysis of human behaviour" (Skinner 1968 : 84). But the permanence of learning or internalisation of taught lessons became highlighted only when the training efforts of the post World-War II period gave birth to the 'systems approach'. After World-War II the 'systems approach' became part of educational technology and this may be said to be the nucleus of educational

technology today. In the early seventies (1972) the Definition and Terminology Committee of the Association for Educational Communication and Technology attempting a definition of educational technology said it was "using a systematic approach to the development of learning resources" (p 36). To achieve permanence in learning scientists proposed the breaking of information into pieces and teaching these with the help of frames and self tests with rewards. Systems approach has very aptly been defined as a step-by-step instructional procedure leading to the best possible learning outcomes. Research in Psychology and teaching methods has culminated in 'programmed' instruction.

Programming of lessons is based on the theory of "reward and punishment" or what is known as the 'operant conditioning' in the term given by Thorndike. Programming is the "sequential presentation of the material; each item must be so designed that the correct response is almost invariably evoked" (Stones 1966 : 234). The term programming "embodies the idea of progression, and clearly the programme will be a gradual progression from simple to complex behaviour" (Stones op. cit.). In programming learning the information is broken into small segments and each segment is presented to the student for self study. These information segments are called 'frames'. These are known as 'frames' "because many early programmes were presented on film with each piece of information on one frame of the film" (Apter 1968 : 34). Frames now refer to any segment of programmed material whether in a book or computer screen.

Its application to teaching literature would expedite explanation of texts and provide autonomy of belief and sufficient reinforcement to learners. Programmed learning for literature is not very popular perhaps because of the creativity involved in the texts. The author uses words and ideas in a new and creative manner so linguistic and stylistic explanation of one text may not be true for

another text. The stylistic use of an author might differ from the reader's belonging to a different or sometimes even similar cultural, social, linguistic, religious and geographical backgrounds. The use may be figurative or geographically subjective. But it is hoped if a similar exercise is done for a number of works by the same author in due course a nice database would be prepared which could give information on all tools and techniques of the author. All this information about the author and interpretations of the texts are likely to give us a complete information for the understanding of the text but there still remains the possibility of missing a vital point. Levi-Strauss in the interpretation of the Oedipus myth has shown that in the later version of myth the addition of the information of Jocasta killing herself and Oedipus piercing his own eyes adds to the main line of interpretation but does not shift from autochthonous origin to self destruction.

### 2.3.3(c) The Hermeneutic definition

The behavioural scientists Edward Lee Thorndike, B. F. Skinner, Ivan Petrovich Pavlov, and John B. Watson and the hermeneutic philosophers F. Scheilermacher, Martin Heidegger and Paul Ricoeur use the same word 'technology' for denoting different things. In Saussurean terms we might say for 'signifying' different 'signified' objects. In hermeneutics the word technology or 'kunstlehre' means the interpretation above the level of words and sentences, that is to say the discernment of message. An interpretation above the level of exegesis and philology. Ricoeur (1981 : 47) explaining this says "What must be reached is the subjectivity of the one who speaks, the language being forgotten. Here language becomes an instrument at the service of individuality".

No language can be called better than (or worse than) any other language because each language performs a similar function of providing a medium of communication to a 'particular group' of people. Certain languages develop certain vocabulary items depending upon the domains in which they are used. Inuit, for example, has a number of words for expressing the state of the snow; modern English has several words for expressing scientific discoveries. Inuit and English both stand independently in their own right as languages, but differ in number of words because of use. Literature written in different languages would have the same status if we start comparing. In teaching foreign literature we should always discourage comparison with native literature. Shakespeare cannot be compared to Kalidasa or Ibsen. Shakespeare should be read/taught in his own right. The central place of the creative writer cannot be challenged because of the ingenious use of language and "creative unconscious at work in gifted individuals" (Ricoeur 1981 : 46) (see figure 2).

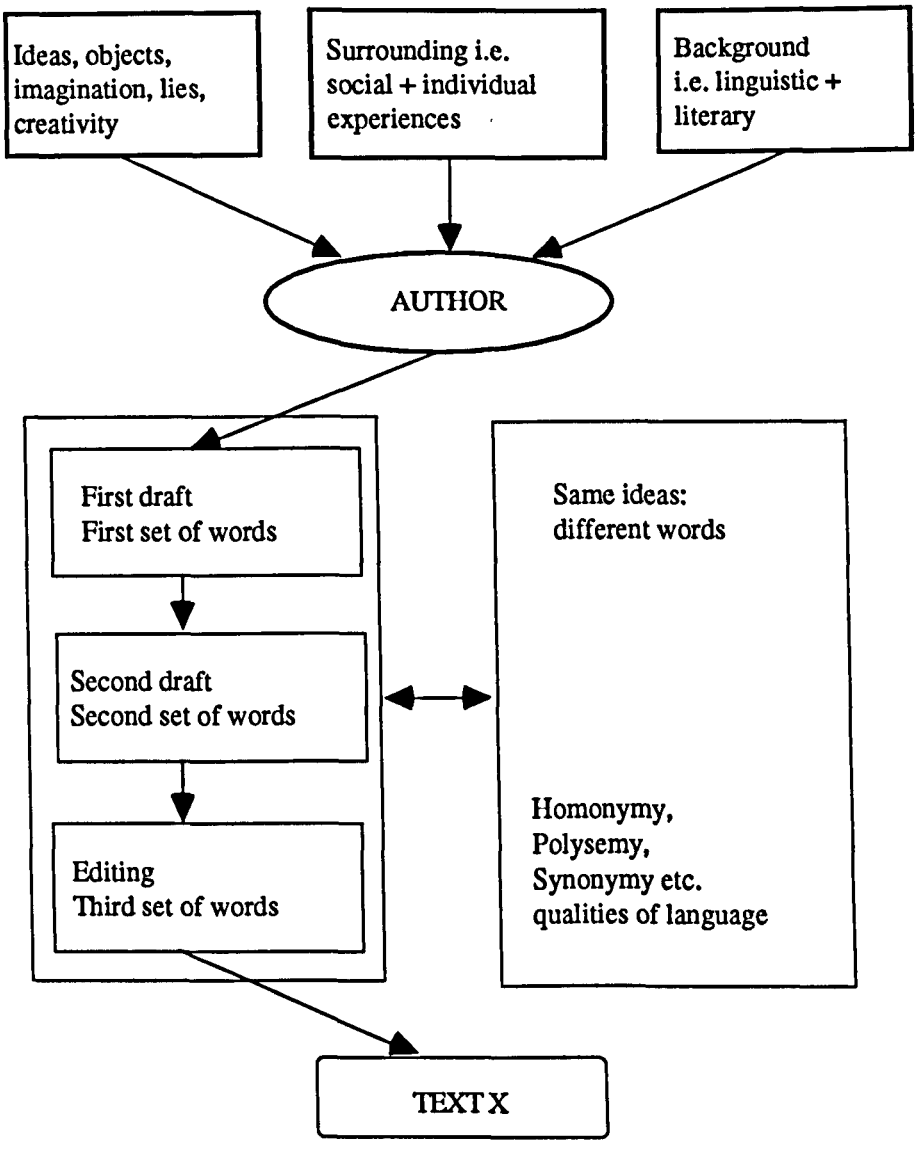



Figure 2.2 : Process of text creation

If we look at the syllabi of a few schools and undergraduate classes it will be apparent that the practice has been to introduce students to very great names of the target language literature without realising the deviance in their language from the normal everyday use of language. The greatest exponents should be prescribed but not without a word of caution regarding the departure in their use of language from the norm. Most of us enjoy a piece of art, a novel, a cinema, a play only when we identify ourselves with a character, know and understand a milieu, judge or evaluate the actions and activities of the characters by one's own expected response or reactions. We get immersed and live in a particular

character. This 'identification' would not be perfect with a character who is enacting a value system, cultural symbols alien to the reader/viewer. "When we look at the ways children themselves talk or write about reading, the ways in which they experience a story or a novel once they are capable of reading independently for pleasure, we see that it is almost always in terms of a direct relationship between their own lives and the imagined life of the book" (Protherough 1983 : 20 - 21). It has also been found that no two readings of the same text by two different readers are the same. The interpretation differs from reader to reader. Every reader in that sense recreates his own version of the text. It is because each one of us grows up with a unique set of experiences where most of the words may have special associations for us. This process of re-creation for a reader of foreign language literature would become more distant from the authors' and critics' of the same area, language and culture. Eco rightly points out "In the process of communication, a text is frequently interpreted against the background of codes different from those intended by the author ... They have in mind an average addressee referred to a given social context. Nobody can say what happens when the actual reader is different from the 'average' one" (Eco 1979 : 8). By the term 'foreign literature' we normally mean literature written in geographically separated area but if we look at it on a micro level we would find that literature written by someone even in a contiguous area can be "foreign" because of the differences in society's and individuals' systems and experiences.

To explain this point further I will give a small example. If someone is given a story to read, s/he will, on the first reading form certain impressions. After s/he has read s/he is told certain things about the author then his/her analysis changes. The reader is once again supplied more information about the area the society and its customs that the author belongs to. Now once again the reader's criticism of

the story will change. In the similar fashion as the reader is given more and more information the interpretation will keep changing. In very general terms the argument can be that after every single major event in the life of a reader his/her opinion and ways of seeing things would change. He becomes a different being altogether after every major event. Every major event acts like a coat of paint or film which changes the appearance of the object. This means that abundance of on-line information about the author and his milieu will help the reader to properly understand the text. This takes us to the semiotics of language.

The reader-response theory or the concept of reader centred text which has been the mainstay of Structuralist and Post-Structuralist criticism from one point of view sounds logical. This appeals to the sensibility because every reader is bound to approach and decode the symbols encoded in the text only on the basis of his feedback and exposure to the physical world or his own semiotic system.

Two things are being presented simultaneously in this section. The first is the quality of language and the social milieu which contributes to the making of a text and the second is the creative genius of the author. Communication between an author and a non-native reader of the text suffers because of the lack of common social background of the author and the reader. Multimedia presentation may successfully bridge this gap to enable better understanding of otherwise misunderstood or even unreadable texts. This will leave the creativity and individual techniques of the author unaffected to be enjoyed by the readers. Non-native readers are presently denied this because they don't have knowledge of the author's context. Rosenblatt (1968) rightly points out that

> the task of developing sensibility to a particular art form will not need to be reminded that any such complete experience depends not only in the work itself, but also on the reader's capability and readiness ... when in

the course of our daily affairs we exclaim "How Funny!" or "How tragic!" we have engaged in an embryonic process (p 33 - 34).

To understand non-native texts we need to understand the puns and concepts of funny and tragic in the native society (see section 1.2 for a detailed discussion on this topic). Unless the process of encoding is forceful enough the impact on the reader would not be strong . After all how is it that writing of so many people together could not reap so much response as that of few individuals like Aristotle, Plato, Marx, Freud, and others. Each work of art besides being the reflection of a social semiotics is also an individual attainment. It is foreknown that only the best of the time could produce a work of art which crossed through the barrier of time and has been appreciated by people of all societies in all ages.

The originality or the singularity of a particular text is also a reflection of the 'duality of meaning' quality of language. The polysemy of words makes it the quality of the creative unconscious to select the most appropriate 'referent' for the intended 'sense'. In the light of these facts it becomes imperative that teaching of foreign literature is done in the best possible manner. To teach literature in the 'best possible manner' is a difficult proposition because every new reader (including the author as a reader of his own text) would have his or her own explanation and arguments for justifying the explanation. In this situation we would have to provide all possible explanations and leave the last reader to form his own opinion and judgement. It is remarkable that a number of times the author's own explanation of the text is not always acceptable because the reader or in literary terms the critic has his/her own arguments and explanations 'situated' by the arguments given by literary critics which cannot be refuted. The text is in that sense not a property of the author and it is free from his personal biases. The words, phrase, clauses, sentences, paragraphs carry the message and are interpretable by anyone. Through the use of media the exact discernment of

meaning can be attempted. Any literary work necessarily embraces elements of culture, biography, history etc. The amalgamation of these elements jointly produces an image. All of us grow in a milieu where each word has a set of meanings different from any other culture. In fact on a micro level each word might have a different meaning for each one of us. But then a range of meanings would be shared with others. The analysis of any text starts with the analysis of syntax and lexicon of the sentence. This stage comes prior to the interpretation stage. For a convincing interpretation the lexical interpretation may fall at the beginning of each linguistic and literary analysis. This explanation with the help of each linguistic item would help students situate texts.

Situating a text or describing the semiotics of the encoded symbols in a text is to relate 'signs' with 'symbols'. This would be learning in a concrete situation rather than abstract. Understanding Wordsworth's 'I wandered lonely as a cloud' would become much easier for students overseas if it is explained with the help of a video clipping of the Lake District and life size photographs of the daffodils. This approach to interpretation is unavoidable and important because words are very poor carriers of message. From the level of 'parole' (individual's use of language) to 'langue' (a society's use of the language) to 'language' (as universal system) the same signifier not only changes its phonetic and phonological realisation but also the signified. This may not be so true of the structure and content words but would be true of the notional words like morality, truth, beauty, ambition, justice, love etc. around which most of our literature revolves and these are better explained without the use of different media.

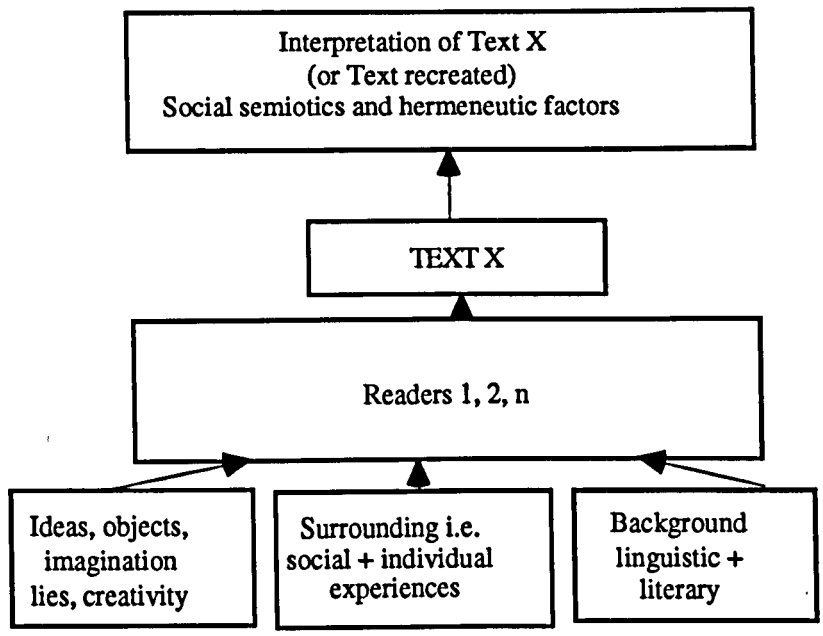



Figure 2.3 : Process ot text recreation.

## 2.3.4 MEDIA AS EDUCATIONAL TECHNOLOGY

If we study the history of education we find that educational jargons especially educational technology jargons have often undergone a period of confusion. At one time 'visual education' was to some education through motion pictures whereas to some it was education through museum exhibits. In a similar fashion the terms 'instructional media' and 'instructional technology' have been used interchangeably. The word technology has come from the Greek word 'technê' which means art or construct and not the meaning it has in present-day parlance, that is as applied to electronic or mechanical appliances. In educational terms it still means weaving together of 'men, machine, and methods, procedures and organisation'.

The terms educational technology and instructional technology have also been used to signify the same things by different people. If we look up the meanings of the two words 'instruct' and 'educate' we find that both the words are very close semantically. The two words mean to 'teach somebody a school subject, a

skill etc.' and to 'train the mind and character of somebody' respectively. The terms 'technology', 'instruction', and 'education' have been redefined from time to time as teaching methods and tools developed. Recent developments of the concept of autonomy of the learner has made the terms 'teaching' and 'education' controversial. Hypermedia is being suggested as a neutral platform through which 'teachers' and 'learners' can get into an 'academic debate' about symbols of non-native literary texts on a hypermedia platform. Argument will have to be proved through information available through different disciplines but linked through electronic connections because just as to understand foreign jokes and puns we need information from the social the background, we need information on other areas like social taboos and concepts of decency and indecency*. Modern technology obliges us to redefine media itself.

### 2.3.4(a) Media in relation to technology

Media is described in the *Oxford Advanced Learner's Dictionary* as "means of mass communication, e.g. TV, radio, newspaper : a book that is often mentioned in the media". Media is used in a different sense in the literature on instructional technology. Gagné (1987 : 6) uses it to refer to 'equipment' and 'associated procedure' made use of for delivering instruction. Educational technology then is primarily the search for more efficient media of communication for the educational domain. Way back in 1977 Schramm provided a binary division of 'Big' and 'Little' media in terms of educational use. Explaining the terms he said

> By the Big Media we mean the complex, expensive media like television, sound films and computer assisted instruction. By the Little Media, we

* To give an off hand example belching is common with Indians (may be because of the tropical climate) so most often people do not even notice it but most Britishers seem to take note of it and it is also perhaps considered impolite. An author mentioning "Paul belched at the table" would not be noticed at all by an Indian reader as an impolite act.

> mean the simple ones, which stretch all the way from slides, slide films, and projected transparencies to radio and programmed texts (Schramm 1977 : 16).

As against media, multimedia is an all-encompassing and a loose term. It is inexact because it signifies any kit for instruction not consisting of a single medium. A book, an icon, a video film or an audio tape is not a multimedia text as such but a combination of any two or all is multimedia, so the term multimedia in the true sense should be extended to any combination of media. A book with illustrations and pictures or a book with an accompanying audio tape would be multimedia. The general purpose of any multimedia kit would be to provide maximum knowledge through the combination of all possible media. The information in this approach would have to be broken into smaller units ('frames' or 'nodes' in technical terms) and encoded accordingly so that the user could switch over ('navigate' in the technical term) from one medium to another. Bob Hart in *Times Educational Supplement* (June 7, 1991) describes multimedia as "One of the biggest buzzwords in computers with television, and some information technology experts predict that students will soon be interacting with desktop computers which handle moving video pictures, stereo sound and animation, as well as text and graphic". Media in instructional terms draws its meaning from communications theory, visual perception theory, operant reinforcement theory, cognitive psychology or literary theory, hardware technology innovation, artificial intelligence and computer science.

Depending upon the availability and the curiosity a learner would like to have information and knowledge on-line easily accessible or in an intelligently navigable form. Multimedia would be useful in providing sufficient knowledge for a learner who is curious and able to receive it.

## 2.3.5 HYPERTEXT AS MULTIMEDIA

Towards the end of the '80s computer technology showed immense development and added many new qualities including sound and picture recording. A new media was born which is now known as '*the* multimedia'. This was named as 'hypertext' by Ted Nelson in the year 1965 but became popular only in the late eighties (Megarry 1988). The idea of hypertext goes back to Vannevar Bush's article 'As We May See' in *Atlantic Monthly* of 1945. In 1960 Douglas C. Englebart and Theodor Nelson began designing and implementing the notion of linked texts. Today hypertext to most means electronically linked data (text and graphics) that run on computing devices and planned software. The grading varies depending upon the network of related knowledge it contains, the accessibility to knowledge provided and the amount of freedom it gives to the users in modifying it according to individual needs. Different people have defined hypertext in different ways. Megarry defines hypertext as a "high level software through which the user explores knowledge in a non-linear and interactive fashion" (Megarry 1988 : 172). This process has been depicted in a diagrammatic form in figure 4. Through such a method of group endeavour any text can be explained

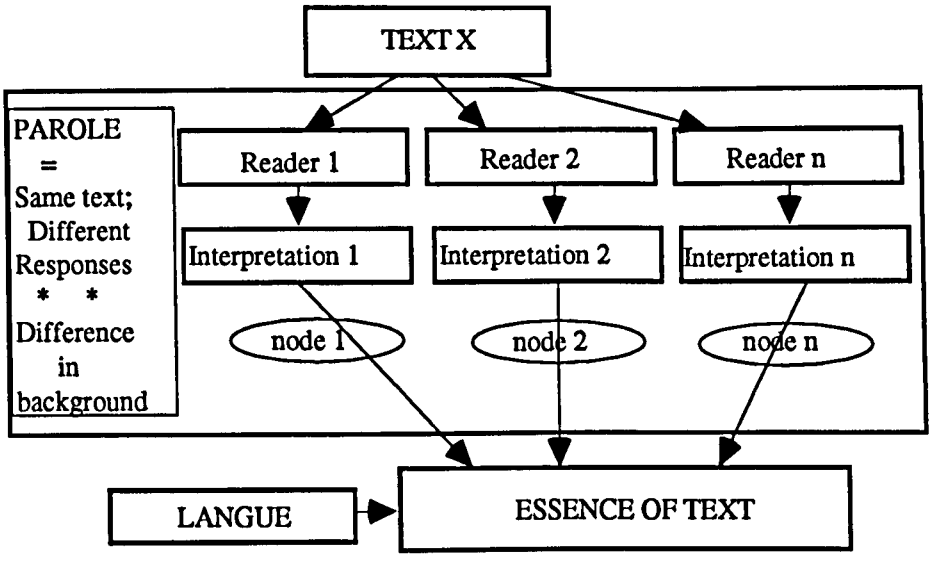



Figure 2.4 : Group criticism through hypertext

and the 'essence' of the text would emerge. By 'essence' in not meant the extract of all important 'qualities in concentrated form' but the core, the basic features which convey the sense. For example any literary text is composed of the experiences and imaginations of the author. The basis of these experiences and imaginations can be found in the society and author's biography. The author translates these experiences and imaginations into written words ( folk texts are in spoken language). These texts are transformed in different forms like sung, read (for recorded versions), or dramatised versions, or converted into radio and television versions. Some texts have become 'social myths' in which category we will keep the sacred books like the *Bible*, the *Ramayana*, the *Kuran*, the *Guru Granth Sahib* and also in the same category we will keep popular dramatic, fictional and poetic works like Shakespeare's *Macbeth*, Tolstoy's *Anna Karenina* and Kalidas' *Abhigyana Shakuntalam*. Different forms may involve different techniques and medium specific conventions for communicating messages. These adaptations are not only medium specific but society specific as well. *Macbeth's* adaptation by the Sri Ram Centre (N.Delhi) has symbols and signals like gestures and dress specifically directed to an Indian audience. These symbols may not be familiar to non-Indians. But there must be something common in all different

forms of adaptations through which the 'original' text has been conveyed. The common message in all the different forms according to our belief is the essence of the text.

A review of hypertext indicates that hypertext is based on the philosophy of the interfacing of large bodies of information. Interfacing is a computing electrical circuit linking one device with another and enabling data coded in one format to be transmitted in another. The whole body of information is broken into small units (nodes). Nodes are information fragments (like texts, graphics or even video) that comprise the basic unit of information. A node may be represented by a single concept or illustration or by an entire article. The nodes are interconnected (linked with associative links) so that users may navigate among them. Hypertext should be thought of as an all-digital, interactive, multimedia environment for the user, not just as a single application programme. The computer no more remains a channel for linear text which provides compressed pages like books; it is now interactive and much more. Hypertext is a comprehensive term in computer technology for knowledge bases having a variety of information forms; every display provides access to others. The only medium that seems capable of doing this in the present day world of immense information is hypertext because it

> links facts across conventional subject boundaries. For example, when studying Chemistry you may wish to study the life of a chemical compound's creator. One hypertext link would connect that compound to the chemist's biographical information located in an entirely different reference work. Another link might connect the chemical compound to a listing of grocery store products that incorporate the compound. We can focus more on content, while ignoring the organism (Goodman 1988 : XVIII).

Similarly teaching literature through hypertext could provide an immense database to the learner. Nodes of the hypertext could contain informative pieces from different critics belonging to different schools of literary criticism. We have to realise that

> Knowledge is not merely a collection of facts. Although we may be able to memorise isolated facts for a short while at least, meaningful learning demands that we internalise information; we break it down, digest it and locate it in our pre-existing highly complex web of interconnected knowledge and ideas, building fresh links and restructuring old ones (Megarry 1988 : 173) (see figure 4).

In the critical appreciation of a literary text information about the text is given to students one by one regarding the author's life, language etc. This is done to situate the text in the context of its creator (the author), the condition (political, geographical, social etc.) in which it was created and the literary tradition to which it belongs. Every critic wants to avoid the situation where he has to say 'No, no that's not what I said. You have got me wrong'. Every critic wants to situate his arguments within the textual relations. That is why while reading printed documents we come across devices which try to compensate for the inadequacies of the printed text in comparison to verbal texts. Time and again the role of punctuation marks has been discussed and emphasised. Pictures, diagrams and other simpler means have been adopted to reduce the communication gap between the mental images (i.e. ideas) and the presented symbols (i.e. texts). More sophisticated devices are superscript numbers leading to foot-notes and references. These direct the reader to discontinue reading and refer to some side text. In print mode it has been possible to give only limited reference but hypertext because of its overwhelming space can contain the whole text for a quick look or ready reference which can provide ample learner autonomy to choose what s/he wants to retain and what s/he would like to lose.

Besides, a literary text should be taught as a piece of art and not as a sermon i.e. value judgements should be avoided. It should not be a purpose to ask students to adopt everything in their own lives as it is in the story, but only to inform 'this is how life is like', to teach about society and its value system. Presentation of all facts and information available on different media for the benefit of the reader would suffice. In a didactic teaching situation the teacher can give his/her explanations for any idea in a text. (See for example in section 0.2 the researcher's personal experience with T.S. Eliot's 'The Waste Land'). If the learners have information on the target culture through real life situations perhaps learners can also put their point of view. In the classroom situation learners do not have any ready information to present a counter argument. Multimedia forms of teaching/learning will help situate argument. For this purpose it would have been much better to teach foreign literature through the medium of plays because plays present real speech among real people. Plays would be a much easier medium for teaching but because of the popularity of prose in reading and teaching this genre is preferred. A short story as Valdes (1986 : 145) says, "generally presents a few characters over a short period of time in a situation that encapsulates a cultural attitude with probably minor cultural values also to be uncovered and discussed". Each aspect can be presented like a play, in a real life simulation, through different frames and their understanding examined through reinforcement tests.

Literary criticism has been influenced by different schools of thought and ideologies. Most of these sound convincing and appealing. But all these highlight one or the other aspect related to the literary work. Some schools of criticism highlight the biographical aspect of the author, some the language used, some the society, area and time of the text created (process of encoding) and some the background of the reader (the decoder of the text). A literary text can be said

to be an accumulation of so many images, expressions, experiences over a period of time. Ideas put together in a text do not come suddenly. They accumulate over a period of time and are put together by the author. In this sense all literary texts are like pointillism painting where all pictures are built with the help of tiny dots of different colours but the overall impression is a blend of all the colours used. As the basic technique of programmed teaching is breaking the information of a teaching lesson in parts the programmed teaching presenting the literary text's information in nodes would be more appropriate. A branching programme on the model proposed by Dr. Norman Cowder in the 1950s where the learner answers the given questions and in case of incorrect answer is returned to the original frame providing information for answering these questions would be useful.

## 2.4 SUMMARY

In the first part of the chapter I have discussed two important issues which are pivotal to the changing Indian society viz. 'Why in the first place teach English?' and if teach English at all 'Why use technology in an over populated country to replace a human teacher?'. It has to be recognised that no nation in this age of technology can expect to survive the race of development if it fails to respond to changing times. In the second part the emphasis is on the decoding of the literary texts emanating from a different part of the world. The symbols are carriers of social and cultural meaning besides the individual's beliefs. In reading these symbols it is argued a group endeavour would help the complete meaning to emerge for a better understanding of the text.

I will in the next chapter examine what is to be highlighted in the reading and teaching of literary texts presented through different media.

# CHAPTER 3

## DESIGNING PRINT-BASED MULTIMEDIA LESSONS FOR TEACHING NON-NATIVE LITERATURE

**CONTENTS**

## 3.1 INTRODUCTION

In this chapter I intend to examine the ways and means through which a message, and wherever possible a literary message, can be conveyed effectively and genuinely without distortion. In an effort to achieve this we examine a whole range of media from gestures to video. As all means and methods of communication are culture specific we turn from time-to-time to cultural analysis of the media and the message.

Most research on media and its application in pedagogic situations has been done through some form of discourse or text. Sometimes the plot has been conveyed through only printed text, sometimes printed text with illustrations, sometimes printed text and audio versions of the text and so on, but rarely has the aim of the research been focused towards the examination of literary symbols and their explanations in an academic context. There seems to be a competition going on for incorporating media and technologies into the classroom. New technologies are being introduced in teaching literature as well. The selection of a medium quite often depends not on the suitability but on the availability of the programme. In this chapter we are going to examine what is the underlying method of communicating messages through different media (linguistic, visual, olfactory etc.) and how different media can be used in explaining literary symbols. The process named as active learning by some and self-instructional material by others has been used synonymously with multimedia. This chapter examines the potential of print based multimedia for teaching literature.

The communicative potential of every medium is not the same. For example no length of text written in words can express the feeling and create the same impact that one single great painting can make in one sight. Even though every novel and

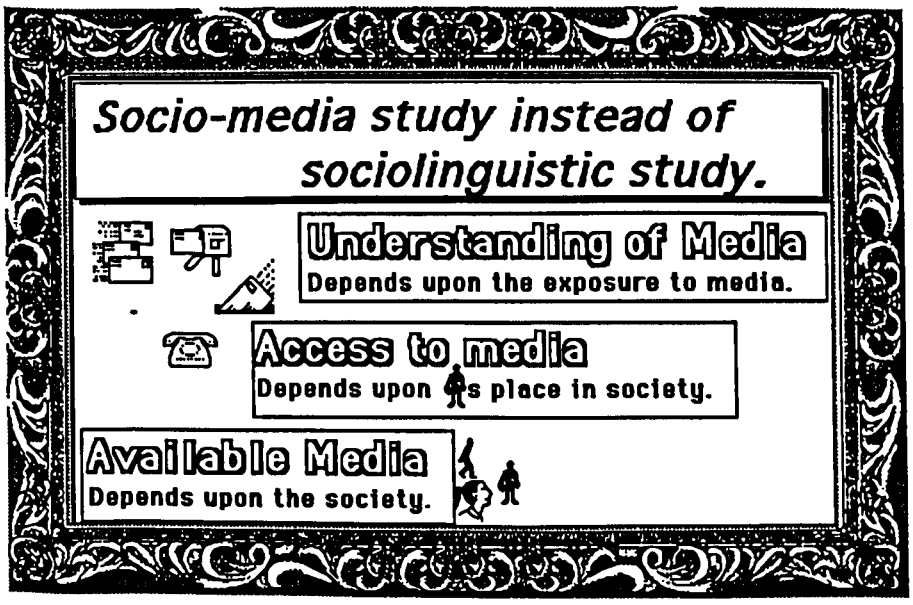
every film narrates a story we sometimes find a film poor in impact compared to a novel or vice versa. It depends on how information is structured by different (or various) symbol systems. A creative director can make a brilliant film even with a simple story. Our concern here is to examine the communication potential in relation to a society of different media for teaching literature.

The target of this chapter is to examine the efficacy of self instructional and audio-visual media for teaching literature written in English and emanating from a part of the world other than the learner's native place. We will start by examining the preferences for using a particular medium and will also be analysing different media and the process of communication.

## 3.2 ISSUES IN THE USE OF MEDIA

The main concern of media specialists is to find novel methods of using the technology whereas educational technologists' concern is to find the educational outcomes of the users. Some research (see for example Anderson 1972, Clark 1983) argue that learning goals are not higher in learning from television which is often considered by others (like Kozma 1991) as educational medium *par excellence*. Salomon found through his research on Israeli and American children that American children learnt less from television because they thought it was an easy medium and they could understand everything from the television because they saw it very often. He found "Israeli children, although exposed to less TV than American peers, retain more of its contents and [are] more strongly affected by its formal features" (1984 : 647). This happened Salomon says because the Israeli children "took the medium more seriously than American peers, thus processing its material with greater depth" (ibid. : 647). Educational technology research has constantly attracted the attention of researchers towards media

selection and combinations for accelerating the learning process. Every educationist involved in the application of media perhaps agrees that "the variety -- the change of stimulus itself -- may refresh and invigorate the learner" (Rowntree 1986 : 233). Most of the research seems to be trying to find which media to combine for optimum benefit in what ratio and in what order. It seems researchers (with very few exceptions) take for granted the aptitude and interest of all learners in all media. So before using a medium for teaching the questions which must be asked are (a) is the medium available to the learner/group, (b) if it is available do the learners have access to it and (c) if the learners have access to that medium or media do they have the level of understanding in that medium that it can be used for the desired level of communication (see figure 3.1). The availability of a medium will primarily depend upon the national policy and development but it will also depend upon the social status of learners. Some areas may not be covered by the broadcast and people staying in that area may not be able to benefit from the medium because the institution they go to cannot afford the receiving instrument (i.e. radio or TV).




(Figure 3.1: Relevance of Socio-meida study)

There is also a caution to be mentioned here. Every medium requires to be learnt before being used. Just as every child learns alphabets, words and grammar to use a language every medium requires a learning and training in its use. Training in the ability to derive educational gains is necessary for using a particular medium in pedagogic settings. Two students with different levels of training in literary appreciation would approach the same piece with different questions and come out with different findings. Salomon says

> Often one finds that non-Western cultures fail to extract the correct information from media developed in the West. Thus, they fail to perceive depth in pictures, continuity in films, or essential features in maps. The reason, it is often claimed, is that these people have not been exposed to a sufficient degree to such media (Salomon 1972 : 402-403).

The effects of illustrations in printed text might be to one of hindrance, to the other of help. For example the zooming-in technique etc. to bring out the micro elements is often applied in educational TV but not quite often with entertainment TV. So a viewer/learner may get confused if suddenly the Red Blood Corpuscles (RBCs) and White Blood Corpuscles (WBCs) are shown after showing blood. The viewer may not be able to make the connection between blood and the shapes (of RBC or the WBC) on the screen. For this learners may need prior training and or simultaneous explanatory commentary.

However, every new medium a learner is exposed to, has the added benefit of attracting new learners than an oft-used medium. Carpenter (1960 : 175) says "A new language lets us see with the fresh sharp eyes of the child; it offers the pure joy of discovery". A child grown up in a house with a television would feel less inclined to sit before a television than a child who seldom gets an opportunity to view a television. Arnheim says

> ... everybody knows how pictures on the wall tend to disappear. They are no longer looked at; they are not missed when they are taken away ... Consider a beautiful painting hanging in a room through which students pass every day on their way to the auditorium. The painting not only disappears from sight (and life space of inhabitants), but it also loses value. ... Exposure to visual material should not be overdone" (Arnheim 1974 : 188 - 89).

A number of studies have been done on the new medium and the diminishing returns of an oft-used medium. Clark, summarising empirical research in this area says "An average effect size of .32 (e.g. a rise in exam scores from the 50th to the 63rd percentile) for computer courses tended to dissipate significantly in longer duration studies. In studies lasting 4 weeks or less, computer effects were .56 standard deviations. This reduced to .3 in studies lasting 5 to 8 weeks and further reduced to the familiar .2 effect after 8 weeks of data collection" (Clark 1983 : 450). A radio is a poor medium for most television viewers because TV is comparatively new and also because radio does not engage the eyes. Print is most of the times not even considered worth the name because of its ready availability and low cost. Multimedia in different permutations and combinations could offer new sequences and selections creating a number of new media to make teaching and learning experience new.

Another important issue which needs mention is the surety of efficacy of a medium or a combination of media. Because every individual and every society has its own habits, training and likes, these become important factors and no matter how minute the research may be it can never tackle all the factors that will provide a final word on the use of one or a combination of media. Salomon (1974 : 396) expressing the same idea says "no media variable, minute or gross as it may be, affects all groups of learners in one and the same way. Hence, one type of 'treatment' cannot achieve a common instructional outcome. Consider two

reasons for this: learners have different levels of competence and they have different goals."

Studies made on class size and lecture vs. discussion, motion picture vs. TV, TV vs. video, radio vs. tape recorded lessons, self-instructional material vs. plain text, etc. can all be included under the heading of 'multimedia study'. Different people have also made similar studies under the title 'media taxonomy' where comparisons and usefulness of different media are made. The majority of the media and educational research has focused either on the qualities of the medium or on the presentation of the message and its importance in communication. The outcomes of such research have resulted in aphorisms like 'the medium is the message' ; 'one picture is worth a thousand words' etc. To our understanding the most important aspect of this research should be understanding (in the critical terms 'decoding') of the message or the code (the sign) and then finding how can that be presented through different media. Once a text is understood it can be explained to anyone either from the same or different cultural group through the help of different media. Because in multimedia "one (medium) allows us to see from here, another from there, a third from still another perspective; taken together they give us a more complete whole, a greater truth." (Carpenter 1960 : 174). Different media provide 'alternative systems of logic' which help make meaning explicit. If the reproductive print maker is very skilled he can supersede the original print made by the artist exactly like an expert translator who can transcreate a text to create impressions which the original text failed in creating. It is difficult to say which is decisive, the 'tool' or the 'technician'.

## 3.3 LITERATURE AS ENCODED SYMBOLS

Teaching is basically explaining signs (sign = signified + signifier). In all societies education starts with the teaching of language and the teaching of language starts with the teaching of the relation between the signified and the signifier. Educators of different languages and in different parts of the world are found engaged in devising innovative means for explaining the different signifiers (or simply words). Reading a foreign literature is an advanced level of language learning process. It would be helpful to employ the same process of teaching foreign literature through which we start learning language.

The process of teaching a language starts by explaining the relationship between the 'object' and the linguistic expression. In teaching foreign literature the objects mentioned in the text may not be available in the surrounding. There may even be expressions which may also be uncommon. For explaining such elements either pictures of objects or video clips of episodes where the expression in question is appropriately used may help explain it in context. The argument might be given that it is underestimating the imagination of the learner but we are only trying to visualise the problems faced even by a single learner. All learners do not have similar visualisation power.

Linguistics has proved beyond doubt that language besides being an arbitrary creation of a group is also an agreement carried over from generation to generation. Barthes (1964 : 46-47) putting it precisely says

> that to each system of signifiers (lexicons) there corresponds, on the plane of the signifiers, a corpus of practices and techniques; these collection of signifieds imply on the part of system consumers (of 'readers' that is to say), different degrees of knowledge (according to differences in their 'culture' ), which explains how the same 'lexie' (or large units of reading)

can be deciphered differently according to the individual concerned, without ceasing to belong to a given 'language'.

The 'lexie' or what is commonly known as literary works are all separate independent sign-vehicles. The literary sign vehicle will have meaning dependent on the context. The context can be genre and the tradition of that genre in that language. We will take 'red' as the symbol and see how the meaning of red will change from context to context and culture to culture.

In the oft-discussed highway language red signifies i) stop ii) dangerous to proceed any further or iii) would be punished (by law enforcers or by accident) if carried any further. But the red colour for the majority of Indian people would signify something auspicious as the colour of Lord Shiva and Goddess Durga. Every married Hindu woman applies this colour on her head to signify that she is not cursed to be a widow. Red to a Marxist would signify revolution and of a person who favours revolution and revolutionary changes. Red in a Marxist state would be a symbol of power but in a society undergoing Marxist revolution to some a symbol of atrocities and anarchy. Can we take every person possessing a red car or one who has painted his door red to be a supporter of revolution or considering himself dangerous?

Red also represents blushing - 'He became red' would mean he blushed . Here red has nothing to do either with danger, revolution or fate (auspicious/inauspicious). It is independent of those meanings. Becoming 'red and blue' in Indian context would mean becoming angry. A red rose wrapped as a gift packing can be a symbol of love but in the symbol system of film with light music from background and the wall clock clicking 12 midnight would be a horrifying emblem. To the Scottish poet Robert Burns (1759-96) a red rose means something else. He says in his poem 'A Red, Red Rose'

*"My love is like a red red rose*
*That's newly sprang in June :*
*My love is like the melodie*
*That's sweetly play'd in tune"*

to mean something different from all the meanings attached to red and red rose above.

It would be apparent from the explanations of the word 'red' in relation to different cultures and societies that it is in different contexts that its real meaning can be understood. It would be impossible to understand literature written by a person from a different culture, social and geographical background without thorough explanations of key words in the cultural context and literary tradition of that language and literature.

Just as it is of basic importance to understand the composition and characteristics of a cell to understand human physiology it is important to understand the meaning of words to understand literature. Vygotsky believes the same when he says

> Consciousness is reflected in a word as the sun in a drop of water. A word relates to consciousness as a living cell relates to a whole organism, as an atom relates to the universe. A word is a microcosm of human consciousness (1986 : 256).

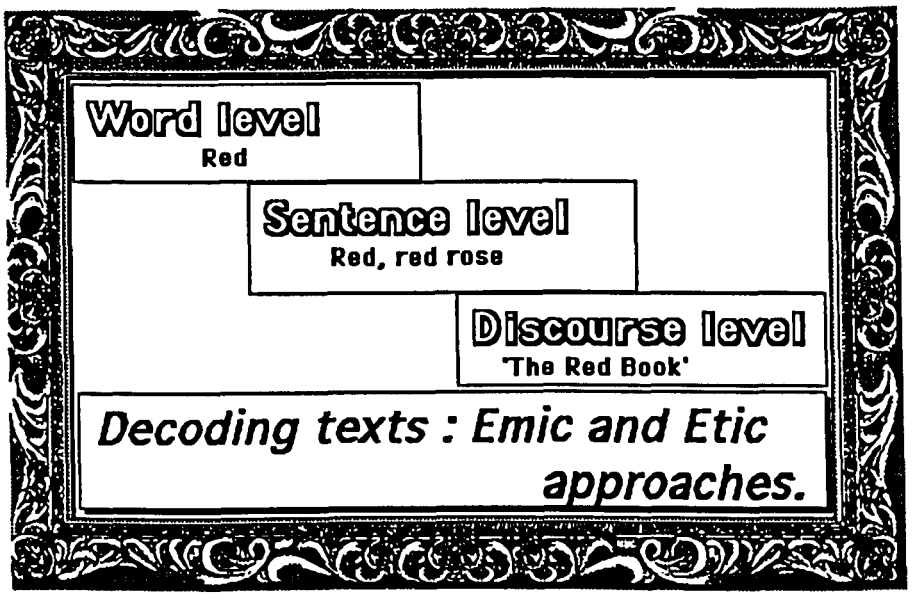
So instead of trying to understand the qualities and capabilities of the medium to be adopted for teaching what is more important is to focus on the teaching points in a text. If what Vygotsky is saying is true we should first focus on the lexical meaning (which will depend upon the context); sentence meaning (which will depend upon the genre) and also the discourse level (which will depend upon the

literary or mythical tradition) of the context of the use. The current practice reflects that pedagogues tailor their lessons to fit the qualities of the medium to which they intend to apply.

Instead of the present dominant approaches of understanding the media, what is more urgent is the understanding of the text before preparing a lesson or decoding a lesson before preparing a lesson that is encoding into 'new languages'. Available knowledge of media combined with literary criticism can help us to achieve this goal.

Multimedia would come handy in presenting literary phrases which literary criticism has not attempted to explain perhaps because these are concepts not adequately coded in language. Let us take for example the title of the Yorkshire novelist Emily Brontë's (1818-48) novel *Wuthering Heights.* The simple meanings of the words (certainly without the 's' suffixed to 'height' which is Brontë's own coinage) does not amply explain the atmosphere these two words present to any reader's imagination. Perhaps a picture of an early 19th century house on the Yorkshire moors on a windy night can explain as much or more than the sections of *Wuthering Heights* explaining the house the place and the surrounding. Similarly from the written words the difference between a hill and a mountain can't be made but a picture or a drawing will immediately clarify the difference. The search of a medium for explaining texts should start from the word level then to the phrase level, the sentence and so on to the text level. It should not always be thought that a novel can only be transformed into a cinema form. The search should start from the word level and go on to explain idioms, phrases and customs which are culture specific and then finally everything might be put into a film format (see figure 2). The exercise that needs to be done before making a multimedia lesson then is to find the words, sentences and ideas which

are socially and demographically contextual. All words do not need explanation. For example prepositions, conjunctions, (i.e. structure words) and scientific terms may not need explanation besides most other words from other parts of speech. As shown in figure 3.2 and explained above 'red' can have different significance to different people and it can change the meaning of the whole text.




(Figure 3.2 : Decoding texts : Emic and Etic approaches)

Similarly if a learner fails to understand the meaning of a particular act (which might be socially and culturally relevant) then the message might have a different effect.

We do not intend to re-examine the egg and chicken puzzle once again but advance on the generally agreed Whorfian hypothesis that language precedes thought and culture precedes language. Predominant elements of culture like religion, social relationships, weather, form of government etc. are bound to dominate literature. Summarising Whorf, Salomon writes "Language is supposed to *shape* ideas and thought, to *guide* mental activity, even to *determine* it" (1979 : 120). A few lines later Salomon writes "Experience directs certain perceptions and distinctions, to which labels are then attached" (op. cit. : 120). One can

perform an activity, experience something for which one does not have the vocabulary but literature is the amalgamation of vocabulary and experiences. Experiences are given concrete shape in expressions through the means of words. For the reader the experiences of the author translated into words may not be complete or as perfect as the author and this is where technology is expected to come to the rescue.

Reading literature is vicariously experiencing things, states of mind, situations created through the medium of written language by the author and made available to readers through the 'technology' of writing. Other technologies involve the same process for transferring different experiences. We will first start by examining how gestures can be used as an exercise for linguistic and concept drill, then look at the social and cultural aspects of teaching a literary text and will at the end analyse different media and the process of communication. In Section 0.1 we have already explained the commonly accepted difference between 'technology in education' and 'technology of education'. Here I am talking of 'technology of education'.

## 3.4 TAGMEMIC APPROACH TO LITERARY ANALYSIS

Kenneth L. Pike opens his monumental work *Language in Relation to a Unified Theory of the Structure of Human Behaviour* (1954) by mainly dealing with the similarities of the different communication systems:

> In a certain party game people start by singing a stanza which begins Under the spreading chestnut tree . . . Then they repeat the stanza to the same tune but replace the word spreading with a quick gesture in which

> the arms are extended rapidly outward, leaving a vocal silence during the length of time which would otherwise have been filled singing. On the next repetition the word spreading gives place to the gesture, as before, and in addition the syllable chest is omitted and the gap is filled with a gesture of thumping the chest. On the succeeding repetition the head is slapped instead of the syllable nut being uttered; in another round the arms may be extended upward as a gesture to replace tree. Finally, after further repetitions and replacements, there may be left only a few connecting words like the, and a sequence of gestures performed in unison to the original timing of the song.

It will be apparent from the above quoted paragraph that Pike suggests that all words other than structure words are translatable into gesture. Successful communication with sign language and expanding use of deaf and dumb language is proof of the dispensability of auditory aspects of communication. Braille proves otherwise.

An equivalent gesture can be found for each word. The meaning of the word and the gesture in context and independent of the context would not be the same. The word 'under' in the sentences 'under the head of the society...' , and 'under moral obligation...' does not have exactly the same meaning. For a general or etic impression (very similar to diachronic approach) one has to start with the particular or emic study (equivalent to a great extent to synchronic approach). For an understanding of the phonetic sound /p/ we have to know the different realisations of /p/ as aspirated [p'] in pin; unaspirated [p=] in spin and unreleased [p'] in napkin. Similarly for a proper understanding of tragedy as literary genre one has to read (1) a number of tragedies written by the same writer, (2) written during a small period of time by different authors, (3) written over a period of time and (4) through the ages. The study has to start from one particular to many - from synchronic to diachronic.

What Pike shows children doing with gestures in the above quoted example of a game we often find writers doing with words, painters doing with colour and musicians doing with sound. The same idea is expressed through different sentences, different paintings and different songs. Rhetoric is a well known device in language/literature for creating the desired effect on the listener/reader through the creative use of language.

The rhetorical approach is often considered one of the devices of literary appreciation (but to our understanding incorrectly) which favours similar analytical approaches to the multimedia approach. Studies in rhetoric and multimedia reflect proximity. As rhetoric has been in currency since the time of Isocrates different people have defined it in their own way but our definition is based in the context of language and literature teaching. Andrews (1992) defines rhetoric as "the way discourses are framed at the 'text' level, the way they are shaped by their context and the differences between them ... and for that matter in music, architecture and other disciplines ..." (1992 : 2). Andrews further says "If rhetoric takes in context as well as text, then the educational context in which language operates and in which literature is read will be a natural part of the network to be studied. Education in institutions appear to be very text-oriented, in the narrower sense of the term 'text'" (p 3). The concern of a multimedia approach will be to see how texts can be interpreted in the light of studies and developments in history, mathematics, music, architecture, painting and a better (hopefully) and all round understanding of the text in educational institutions.

## 3.5 MULTIMEDIA AS LITERARY PEDAGOGY

Multimedia might be a misunderstood term today but way back in 1977 when Schramm used it to denote a combination of media it represented only one thing :

that of combining different media for communication. Schramm (1977 : 13) said "We must not forget that almost all teaching is multimedia. The name is new and fashionable, but the practice is ancient". Rowntree as late as in 1990 (2nd Revised edition) under the heading 'Multi-media Packages' writes

> Throughout this book I have assumed that PRINT will be your most accessible medium. That is, your learners will spend **most** of their time, I imagine, considering words and pictures on the printed page (1986 : 233).

He further says

> you might aim to make each course, and to some extent each lesson, a **multi-media** experience -- even if one medium is used more than all the others put together. Which media might **you** be able to use in addition to print (1986 : 233).

The same concept or technique is used by some today under the title media-mix or mixed-media. Schramm's definition of multimedia still holds promises for the developing countries where modern technology is still available to a select few. The purpose of multimedia modules should be to make texts more communicative and interactive. New technologies have the capability to improve learning and the quality to democratise education. What has been the privilege of the few can be shared with masses. McLuhan (1960 : 2) says:

> The movie is to dramatic representation what the book was to the manuscript. It makes available to many and at many times and places what otherwise would be restricted to a few at few times and places. The movie, like the book, is a ditto device. TV shows to 50,000 viewers simultaneously. Some feel that the value of experiencing a book is diminished by being extended to many minds. This notion is always implicit in the phrase "mass media" "mass entertainment" - useless phrases obscuring the fact that English itself is a mass medium.

Literary critics try to explicate literary texts through their theories of text analysis. Using multimedia in a way is inventing a new critical method and saying the same things once again in terms of modern media and technology (what literary critics have been doing for ages). Most of the writings are attempts to share individual expressions with others. Devices like ellipsis, rhetoric, synonymity etc. have been used to convey to readers what the author has experienced. Educational technologists have argued that the use of technology would enable all students to be taught by the experts in the field with the help of machines; literature itself is sharing the craft of master craftsmen with the readers. Both the efforts - of writing a text and providing creative reading skills to the learners - are sharing the knowledge and craft of the expert with the learner.

The impact of 'Dover Beach' can perhaps never be translated into any other medium and so would the impact of *Mona Lisa* be impossible to recreate. A poem might not have the same impact when read as against the impact produced by the same poem sung by a music group. On the other hand if a number of groups sing the same song not all would have the same impact. There is some creativity involved and some imagination applied to make the song more appealing to public tastes.

The mention of *Mahabharata* and *Kamasutra* is symbolic as they are taken to be texts *par excellence* of their times but cannot be properly understood by someone interpreting them in the present day Indian context. The purpose was to show that *Lady Chatterley's Lover* and *Siddhartha* may not be well received in India today in spite of the fact that *Kama Sutra* has been a product of this society.

The purpose of mentioning 'Dover Beach' and *Mona Lisa* as texts was to evoke the next important set of symbols that is crucial to the development of multimedia

lessons. Texts and pictures will be in complementary relationship. This relationship, of textual and non-textual material will have a deeper effect on communication than illustrations in texts or pictures on the walls of public places because in this medium they together make the message, they are in a symbiotic relationship.

Reading from multimedia will involve the

* ability to distinguish the information in relation to time (i.e. historical context),

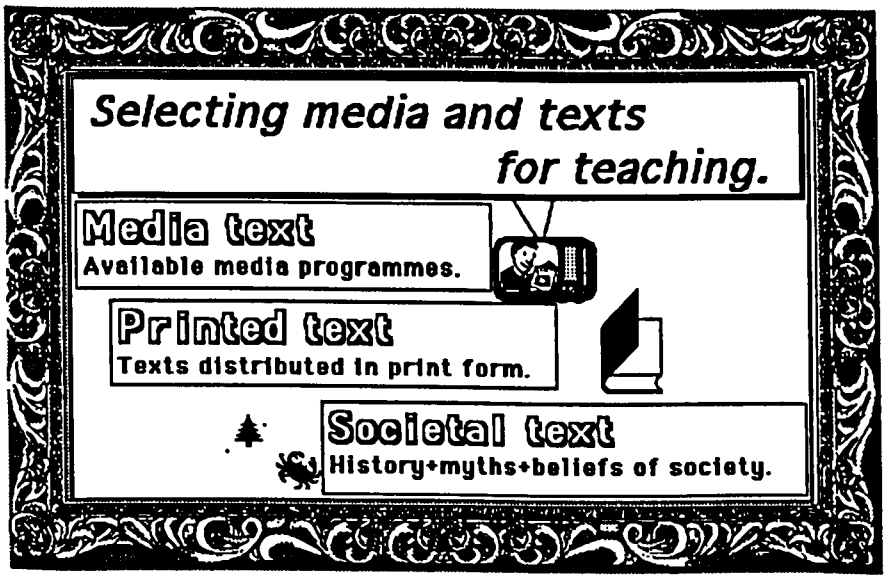
* ability to distinguish sub-texts of information (i.e. issues like gender, race etc. )

This will benefit the reader if s/he is qualified in reading different media but the developers should not take the users' training in one or the other medium for granted and present all information through as many media forms as possible because every individual learner will have a peculiar neural-network to place and remember new information.

Learning new things or remembering new stories or new information is guided by the process of integration into the existing network of information. If new information is non-referential then it is difficult to remember that information. This is why narratives are easier to be remembered than stream-of-consciousness stories. In narratives events are connected to one another and so remembering them becomes easier. For example texts based on the *Bible* like *The Christmas Carol* would not be very suitable for teaching to those who are not familiar with the story of the *Bible*. Similarly *RashmiRathi* would not be suitable for teaching to

those who are not familiar with the story of the *Mahabharata*, because references to the characters and popular beliefs of the society and mentioned as practices in the text will not be understood by the non-native reader. Such books (as print is the commonest medium of text distribution) which are commonly available and have been available for a long time and mass-media which have been in use by a society for a long time would be good and helpful selections (see figure 3.3).

In foreign literature, objects referred to, sequence of events and place names may be mentioned which would be totally new as information and concept and it would be difficult to integrate into the existing web of information. Different media would help situate them through concrete ideas in the readers' mind. Evaluation of media in literature teaching can neither be done in terms of the qualities of the medium, the presentation form, the content nor in terms of the change in students' behaviour. It would have to adopt a role which it performs neither purely educational nor purely for entertainment. It will be a role in between. It will be entertaining when it shows scenes (through visuals) from the




(Figure 3.3 : Selecting media and texts for teaching)

place of the author but educative when it presents the information on literary ideas expressed in the text.

Multimedia courses might be found duplicating the presented information (lesson) but this would be deliberate because of the individual preferences and training for using one against the other medium and lack of information about the best medium for that particular message. Multimedia can play different roles in the teaching of different subjects to different target groups in different social and educational (classroom vs. distant) settings.

## 3.6 MULTIMEDIA IN PLANNING LITERATURE LESSONS

The fast expansion of multimedia proves it has been found to be helpful in teaching but its use for teaching literature has not been properly studied. Multimedia for teaching English literature could prove more useful if the techniques suggested below were applied. It has often been misunderstood that multimedia lessons are useful only in the distance mode of teaching because of the absence of the teacher who brings with him/her a number of techniques to explain the presented concepts and the interactive nature of the 'conventional' teaching situation. In the open and distance teaching situation the multimedia method is unavoidable because the learner is on his own but this could also be useful for preparing lessons and teaching in the classroom. Basing our model on Linguistics where the area of study is Language - not a particular language or its literature - here the focus of study is not the media (like television as a system of symbol system or symbol encoding system) but the message of the literary text and the method of conveying it through different media. The means are many and diverse but the objective is the decoding of literary texts and employing an appropriate medium or a combination of media for better explanation of the literary devices.

In the absence of a research looking into the appropriate medium for conveying a particular message we have in the following section tried to examine what the present research has discovered either as an end in itself or as means to teaching a particular discipline. After all how do painters painting a picture to convey the message of a poem or a producer making a film of a novel or a poet writing a poem on a myth or incident of a book encode the message? There is, it seems, some underlying symbol system cutting across all media. Stoneman (1992) has very well brought this theme up in her study of *Wuthering Heights* as depicted across media. She points out "the hill-top is a part of the essential mythology transmitted in the simplest allusions. There is, however, very little description of them out of doors in *Wuthering Heights*". Stoneman mentions that there are only two references to hills, first in Chapter 3 and then in Chapter 6. Then how is it that all film producers and painters of *Wuthering Heights* have the ruggedness of the hills primary in their recreation of *Wuthering Heights?* It was perhaps Charlotte Brontë's 'Preface' to the 1850 edition of *Wuthering Heights* which set the scene for the marriage of the landscape and the novel. All critics since have found a direct relationship of the novel to Yorkshire moors (Stoneman 1992 : 178).

Andrews (1992) in his study on narratives and arguments gave to the students a set of seven pictures (from the two sets he had) and asked the students to write a narrative on the basis of the pictures. As all the stories are not mentioned in detail it is not possible to say if the photographs evoked similar ideas (expressed in similar words) in the stories of the children or not but it appears from the extracts of the stories cited in the study that photograph 6 of Set 1 (an old lady sitting on a bench in front of a statue in a garden with her hand on the head) evoked a message of anxiety and pain. An interesting and useful study could be made on culturally different students to find how the same photograph evoked different

feeling. It will be relevant to mention that during the time Britain was involved in the World War II India was engaged in Freedom Struggle. Most mentions perhaps of a white man with a gun would evoke an image of repression to an Indian but of a German soldier to a British student. Photographs like any communication have an arbitrary meaning encoded and they could be employed to evoke desired ideas; but they could also have a cultural and social significance. This will have to be ascertained before using them.

In preparing print based multimedia lessons we can divide the media into the following heads:

### 3.6.1 Use of Illustrating Texts

Few existing studies examine the efficacy of pictures only as pedagogic material. Illustrations without the accompanying text have not been studied seriously. However Peeck (1974) confirms that pictures were helpful in retention of information. Andrews (1992) demonstrate that pictures can be used for conveying the same information that is conveyed through text only. Peeck's (1974) study assures text can be summarised through pictures whereas Andrews (1992) study proves pictures can be used as independent stimulus for generating text. To my understanding the two studies complement each other.

Text can be illustrated in different ways. If the text has actual human beings involved, for example historical novels, then the picture of the person can be used; if description involves for example actual objects and tools then drawings of the objects and tools; and if complex constructions are discussed then sketches can be used. Different people have made different uses of pictorial presentation, the outcome of the input depending upon the text provided to the respondents. In

pedagogic situations the aim is to provide long term memory to the learners. Some use pictorial presentation in conjunction with the text and some as an independent medium. Peeck and Jans (1987) conducted research on the comparison of stimuli given to university students on an African tribe. Summarising the results they say

> In comparison with the slides condition, the tape-slides condition retained significantly more information presented by text and pictures but significantly less information presented by pictures-only. There were no differences between the tape-slides condition and the tape condition in retention of unillustrated text content, irrespective of its relationship to what was shown in the picture, but illustrated text content was better retained in the tape-slides condition (Peeck and Jans 1987 : 412).

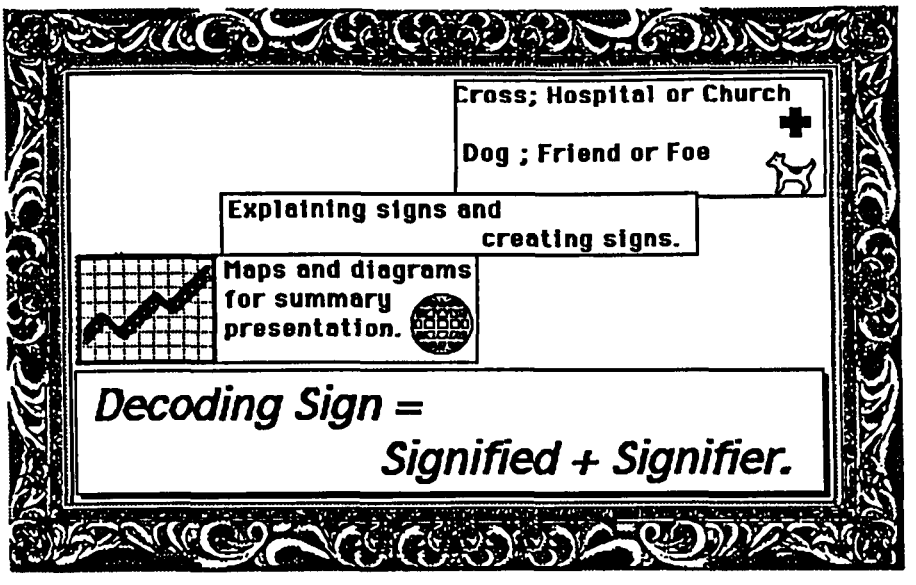
Peeck (1989), discussing the higher retention of pictures than words quotes Westman (1975) who says " "[the] presentation mode of items presented as written words was recollected incorrectly as often as correctly even if the content was correctly recalled" (p 127). No such deterioration was found for items presented as pictures. Evidence for a bias to remember a word as being presented as picture rather than vice versa can also be found in a study by Durso and Johnson (1980)". Peeck sums up by saying

> It could mean that long-term memory for picture modality is better than for text modality, but it could also reflect a more general bias, namely a tendency to think that knowledge retained from an illustrated text is more likely to originate from the illustrations than from the text (op. cit.).

### 3.6.2(a) Illustrating Through Photographs, Diagrams and Sketches

There are different ways to illustrate texts. These may be through still pictures, simple line drawing, detailed shaded drawing presentation, realistic photographic

presentation, labelling drawings, diagrams, tables and cartoons. A photograph, a sketch, a diagram and a cartoon are not the same in conveying the message. One wonders why in 'serious' literary texts nearly no illustrations are found. Carroll (1974 : 171) observes "in a text book of physics or biology such representations are practically indispensable; in works of fiction they are still regarded as useful in children's literature, short-story magazines, and the like, although for various reasons they rarely appear in serious fiction written for adults (as they frequently did in the nineteenth century)". Opinions would vary regarding contriving pictures of characters from the text or even providing pictures of characters acted in movies and serials made on texts. One argument can be that the mental imagery building of a character depends on the individual reader and his/her interpretation of the text and so it should not be hijacked by the illustrator. The other argument, and equally strong, is that the language development and reading pleasure that the reader has the need and the right to should not be denied. It's a different matter to provide maps because the purpose of a literary text is not to teach 'reading' maps, and this will enhance situating a novel. Similarly language encodes everything from myth to religion to social and cultural practices but these cannot be interpreted by a person unfamiliar with this culture and as such pictures can be usefully employed (see figure 3.4).




(Figure 3.4 : Decoding signs = Signifieds + Signifiers)

Peeck (1989) conducted researches based on two narratives 'Rupert Bear in the Land of Dreams' and 'Rupert Bear and the Obstinate Princess' for delayed retention. He found that

> subjects' memory for the illustrated text became, in time, increasingly dominated by what they had seen in the picture rather than what they read in the text (op. cit. 272).

Peeck found that the effect of the picture may not be striking if the test is conducted immediately but

> there is a substantial relative increase in correct picture-based responses when testing follows a delay rather than immediately (op. cit. 272).

In a sketch the artist's role is much more dominating than the photographer's in a photograph. A photographer can only influence the picture till he/she decides on one angle or the other from where he/she wants to take the picture but in the sketch the artist is more influential. He decides on the background, the colour and choice of dress, face and background. A photographer conveys "the literal

reality" (Barthes 1977 : 17) whereas all others are "constituted by a universal symbolic order or by a period rhetoric, in short by a stock of stereotypes (schemes, colours, graphisms, gestures, expressions, arrangements of elements)" (op. cit. : 18). These are very important because they help make and change ideas and interpretation. Imagine a text of *Macbeth* illustrated with Lady Macbeth in sari and blouse and Macbeth in dhoti and kurta. An Indian reader would have a sense of proximity to the play. But the same illustration would perhaps have no such impact on British readers. It goes without saying that the purpose of illustration in text-books is not to demonstrate art and refinement but to present or summarise the information said in so many words in the text. An illustration is like writing a summary. So the face of Lady Macbeth may be beautiful but it should reflect the ambition which made her merciless. In the photograph, which has more truth value, the photographer's identity is not important because it is the true representation of an event but in a drawing or sketch the artist's identity is important because that is believed to be translated in the sketches. I am not talking here of artists like Picasso, Leonardo da Vinci and others whose works are known by their name. Illustrations carry with them the sort of cultural information that in linguistics is called 'suprasegmental features'. What for one reader would be a picture of a beautiful girl for another reader/viewer from a different culture picture of any girl. This happens because beauty is a social construct. In most general terms it can be said that for all Indians every blond girl would be considered beautiful but all blondes won't be considered beautiful in England. Beauty lies in the eyes of the beholder not in the object.

It is much more important to illustrate texts today than ever before because modern societies are basically visual societies. The words carry less than what they carried before the invention of the moving image capture device. More and more modern readers are learning to read pictures as well or rather better than

printed words because of the continuous exposure to visual symbols. Readers using texts with illustrations often distribute attention between the printed text and the illustrations. It has been found that readers swap between printed text and the illustrations to "supplement the text. An initial look at the picture will evoke domain knowledge, for those that have it. In a less familiar domain, readers will move back and forth frequently between text and picture to clarify the meaning of a **word** or to construct or to elaborate on a model of the situation" (Rowntree 1986, '90) (emphasis mine). The readers switch over to illustration to search for 'word' meaning as well as the situation; what in literary context can be called a 'discourse'.

### 3.6.2(b) Maps and Diagrams as Summary Presentation

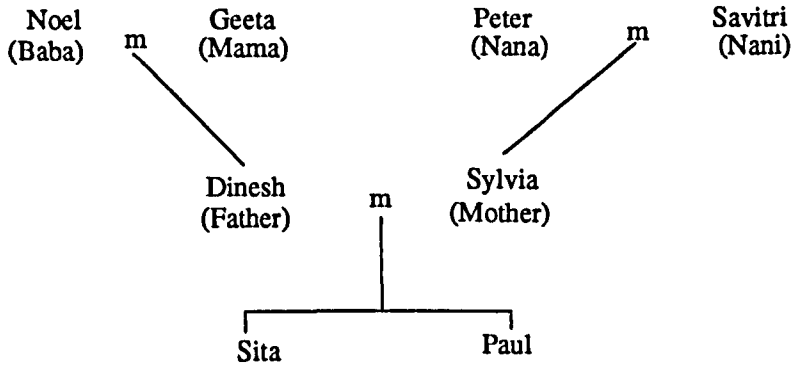
Every story, every novel has to be situated in a physically concrete geographical location. The names might be imaginary and fictitious but it can be recreated from the story (if the story is not a science fiction or fantasy which talks of imaginary space). In Victorian novels we often find a map which gave an idea to the reader where the story was situated and where activities took place. If an actual map of the part of the country the author is describing or a recreated map on the basis of the story is provided to the readers, this will help readers in understanding the story. A real map may not be very useful in all cases because some people do not have an aptitude for reading maps. From this point of view a recreated map might be more useful. Accompanying maps would help form a picture of the size (population, development etc.) of the town and also the culture and social background. A work written around Manchester would normally be expected to be influenced by industry and similarly a work written around Nottingham (like the writings of Lawrence) would be influenced by mining.

It is also a good idea to provide diagrams or a blank map where the student is asked to write the name of the places or trace the route taken by characters, as in the illustrated edition of *Comedy of Errors* for Schools. In the map shown below the students are asked to 'Trace the course of Egeon's story (lines 36 - 139) on a copy of the map'. The learners would be able to concretise the plot they read.


(Figure 3.5 : Maps in teaching literature)
(Source : *The Comedy of Errors*, Andrews (ed.) 1992)

Similarly in long stories as novels it is difficult to follow the line of relationships of all characters. One character appears after a long interval and the reader has nearly forgotten the relation of that character to the main story. The ready available tree-diagram of the relationship of characters will help the reader make the connection.

Tree-diagrams can also prove helpful for a foreign reader because of the differences in the terms denoting family relationships. Take for example the term 'grand-father'. It would be inadequate for a Magahi reader because in Magahi grand-father from mother's side would be 'Nana' and from the father's side would be 'Baba'. The same thing expressed through a tree-diagram would make it amply clear.




(Figure 3.6 : Tree Diagram showing relationship amongst characters in a text)

This might not sound necessary for a reader brought up in a society which does not experience much difference in the attitude to a grandfather from the father's side and grandfather from mother's side, but for a reader belonging to a society which makes the distinction and resultant changes in behaviour and attitude depending upon the relationship, the difference would be noticeable.

### 3.6.3 Effective Design of Instructional Texts

* Use of different type faces font size and different colours for printing texts (page size, columns, margins etc.)
* Headings, Sub-headings and Sub-sub-headings
* Use of box and shading for highlighting points
* Use of reader stopper lines (For ex. 'Read beyond this line only when you have answered the self check exercise')

Most academic texts normally follow the A5 page size approximately and novels and anthologies take around A6 page size. It is a good idea to alter the size of the page to give newness to the appearance of the text. Learners from the very beginning will be excited to 'explore' this new form. Most open learning materials

have been printed on the A4 size page (Rowntree 1986, '90 : 283). A4 size has been found to be helpful because enough space is available for all different types of information to make lessons multimedia.

It is a good idea to break the text being taught into parts and provide related information at one place to the learners. Learners use the headings, sub-headings and other devices to skip uninteresting and read interesting portions with attention. Depending upon the interest readers also move back and forth to find information to their interest. Kozma (1991 : 188) reports a previous study by Brandsford and Johnson who say "the title evoked an appropriate schema that allowed the readers to supply information not explicit in the paragraph but important for its comprehension". The title like a picture works like a summary which helps access the overall meaning of the following text.

Dividing the text under titles and sub-titles also helps to break monotony and provide the answers to queries which might have arisen in the minds of the learners. Accompanied with the comments some self-check exercises may be provided. Self check exercises (also known as 'In Text Questions') not only help to reinforce the contents but build confidence in the learners that they have understood the lessons. It is emphasised by ET experts (Rowntree 1986, '90 : 121) that such exercises can be provided after every hour of reading material or say "three pages of reading". In literary texts this could be longer or shorter depending on the content. In a novel such exercises could be given after every chapter but in a poem like 'The Waste Land' this could be given after every stanza of the poem.

### 3.6.4 Use of Simple Devices for Group Presentation

* Over head projector (OHP) for group presentation.
* Slides with or without taped commentary or commentary by teacher.
* Story board for writing script.
* Pictures with unmarked labels to be filled in.
* Toys, statues, puppets and models to develop some sort of museum at the place of study.
* Flannel board for displaying charts and photos at the place of study.

Contrary to what has been said before (Section 3.3) that learning is directly proportional to effort invested (Salomon 1984) 'study displays' can be unique in achieving learning goals. Study displays will include devices like wall charts and posters, feltboards, hook and loop boards and magnetic boards. Most of these can be placed and removed for short periods of time for achieving novelty and encouraging use. These can be used effectively for different types of linguistic goals. For example pictures based on the novel, story or play can be put up at regular intervals of time on the display board and students be asked to write their own stories; something like what Andrews (1992) did with set of pictures in the classroom. These activities can be accelerated by offering prizes to the best writer and other runner up prizes.

Lives and works of authors, pictures and summaries of the work of recent award winning authors, cartoon presentations of a particular period of literary history and so on can be displayed for learners' use. Quiz contests may be organised based on these presentations so that the interest is maintained. But we have to remember Arnheim's caution (1974 : 188 - 189) that it should not be overdone or it will lose its effectiveness.

In conventional classroom teaching and also in counselling and tutoring to distance learners during week-end or summer classes devices for group presentation are an age-old effective activity. These are cheap and can be prepared without much effort but the educational rewards can be high.

One of the simplest and easiest in terms of creating software is the still projector. Slides of pictures either taken on slide film or slides made from photographs taken otherwise can be useful resources. For teaching to non-native learners this is a very useful resource for showing places and objects not familiar and not easily available. In the classroom situation the ektalite screen, an aluminium surfaced screen, helps view the projections of slides in a lighted room.

| **Group size** | **Mode of Instruction** |
|---|---|
| Two persons | Tutoring |
| (One tutor one learner) | (Tutor - Learner; Peer-tutoring) |
| Three to eight | Discussion |
| | (Interactive recitation) |
| Large group | Lecture |
| (Fifteen or more) | (Individual recitation) |
| Very large group | Lecture |
| (Hundred or more) | (P.A. system, lecture theatre etc.) |

(Made on the basis of Gagné and Briggs 1974; 1979 : 241 - 244)

The overhead projector (OHP) is another useful device because educational material can be prepared by the tutor locally to suit the target learners' needs. OHP facilitates a tutor's presentation because the tutor can face the class and at the same

time project the notes/points on the screen. OHP also works quite well in lighted situations so darkening of the room is not required. OHP permits transparency after transparency to be overlaid to "show progressive stages of development or sequences in a variety of topics" (Wittich and Schuller 1973 : 408). Opaque projectors can project non-transparent material like a page from a book or prepared notes on cards and paper by projecting them by means of reflecting light. These presentations can be aided by commentaries by the tutor.

### 3.6.5 Programming Lessons

Effective planning of lessons is very likely to prod learners to get more than they would otherwise get. It might not be as easy and simple to make a lesson didactic and structure a lesson for programmed or self-instruction. It is often quite difficult to write in one sentence or a paragraph what can be said in pages. It can be quite an exercise to structure a lesson by providing aims and objectives, introduction at the beginning; overviews, definitions, feedback and help during the lesson and consolidate the aims of the chapter by providing summaries, conclusions and future activity at the end of each lesson. The devices which can be used to programme a print-based lesson can be divided into the following heads.

* Aims of the lesson (or plot of the story)
* Objectives of the lesson (the message of the story)
* Self check exercises
    (a) space left blank with question for short answer
    (b) objective questions
* Glossary of terms
* Summing up
* Module kit (work book)

### 3.6.6 Other Innovative Techniques

* Using stencil, photo-copying and postal service
* Use of photocopy facility to send out relevant latest findings or research from journals, newspapers or other publications
* Supplementary self-test exercises can be sent on the stencilled paper
* Newspaper for community education and developing general interest in literature (also for advertising courses and sending exercises and time-tables)
* Radio and TV news and preplanned lessons as exercises for linguistic and literary analysis.

In formal and non-formal teaching situations alike multimedia can play an important function in group teaching. In the formal, i.e. classroom teaching groups can be formed and one or two students, depending on their interest, can be asked to re-present the lesson through a particular medium. One student can draw a picture, one a cartoon, one can write the text for the cartoon, one can prepare a commentary on an audio cassette. Similarly in the non-formal situation i.e. distance learning students from one study centre can form a group and prepare a multimedia presentation. Such group activity would enhance understanding as the learners would be learning by doing and also the monotony of self-study would be at least reduced if not totally removed. Exercises based on the educational or other programmes broadcast on the TV can be set in the assignments given to students. For example questions like 'Reflect on the use of language on any of the BBC 2 Open University programme of 19th of this month' or 'Comment on the use of language in the TV news week beginning 10th.' As it is known well in advance about the programmes to be broadcast questions can be asked on a

particular programme to be broadcast like 'Reflect on the use of symbolism in Hemingway's *The Old Man and the Sea*'.

## 3.7 SOUND TRACK AND MOTION PICTURES

Since the time television and video came into use in the educational sphere radio and audio cassette have not attracted enough attention from the curriculum planners. It is true that video has the added advantage of the visual message but the audio medium has its own advantages which cannot be replaced by any other medium. Cassette tapes can be used very effectively for commentary, discussion and instruction, both linear and interactive. A well read story on a CD audio or a cassette can leave the eyes free to relax or the learner to do some other work and at the same time utilise the time for listening to some story. It has often been emphasised that in learning a foreign language an essential part is to learn the phonological system of the native language user. Audio has been used in different ways in teaching the sounds in isolation and in context. It often happens that those learners who are shown the video adaptation of a text have more pictorial accuracy in their responses whereas those who are exposed to the audio medium present more linguistic details. In the context of language teaching this will be helpful in teaching vocabulary and other features which have been tackled through rote memorisation : features like articles, prepositions and idiomatic and phrasal constructions. Kozma (1991 : 192) basing his findings on research of Meringoff (1982) and Beagles-Ross and Gat (1983) says that "the audio groups more frequently retold the stories using expressive language and based their inferences on verbal sources and prior knowledge" (op. cit. : 192).

Most people believe that television is a much better medium than conventional instruction but recurrent research findings suggest no significant difference

(Anderson 1972 : 43). However, Anderson agrees "A course of foreign language can be offered in a school system which does not have qualified foreign language teachers; excellent teachers can enter the classroom via television where equally qualified teachers are not available" (op. cit. : 43). Kozma (1991) also reports that the visual medium provides information and stimulus which helps situate the symbols. Video can be used successfully to present the unfamiliar symbols. Fortunately available research (see summary of available research in Levie and Dickie 1973 : 874) says there is no effect of colour (as against black and white) on learning and the easily available hypermedia platform supports black and white presentation.

It can be said that video and audio supplement each other in presenting unfamiliar symbols and sounds for teaching foreign language and literature.

## 3.8 SUMMARY

It is apparent from the above mentioned adjuncts devised to optimise learning that they draw inspiration from different disciplines and professions. A close collaboration of experts from different professions and interests would be necessary for maximum effort. A multimedia approach would involve multi-disciplinary co-operation and interactions between authors, editors, researchers, and producers (including text designers). We have studied aspects of multimedia presentation in general and also in the context of literary texts and hope their application will bear fruit if these are applied in developing hypermedia programmes. For our research they help us advance further in the direction of hypermedia application.

In this chapter we have examined different media and their use for teaching language and literature. Most of the techniques discussed in this chapter are presently used for preparing print based multimedia lessons and teaching in classrooms. In the next chapter we will see how ideas from these media could be employed to develop computer-based multimedia systems.

# CHAPTER 4

## STANDARDISING HYPERMEDIA FORMATS FOR TEACHING LITERATURE

**CONTENTS**

## 4.1 INTRODUCTION

This chapter aims to discuss means and methods through which the cognitive process of reading literary texts can be improved using hypermedia. The approach that has been suggested is universalisation of the format of the hypermedia programmes for teaching and at the same time in-depth analysis of the text in question. The method is comparative but individual freedom and understanding has not been influenced by the teacher's (who created the hypermedia text) beliefs.

In the beginning literary creations were transferred orally through word of mouth but after the invention of writing process they have been recorded in orthographic form. Some people say the creative process or the 'kernel' of both the oral and the written text is performed in the mind; once the plot has been finalised it is written in long hand or printed through technological gadgets. Writing is a result of expansion of knowledge and also increase in the ambiguity aspects of language. Ambiguity aspects have increased due to the modern inventions and developments in the means of communication and transportation. Books and journals are published from one place but supplied internationally. This process helps the spread of language but the same words and expressions are used by different groups to convey different messages. In modern times creativity incorporates aspects of mechanical production. More and more printing houses now accept manuscripts only on disks. The switch over from oral to written form of text was a positive step in the direction of standardising. Idiolectal factors (like phonetic) and sociolectal factors like (singular-plural vs. singular-dual-plural) could not influence the printed text which could unconsciously influence the oral text. The idea of hypertext must have come to the inventors because of the galaxy Gutenburg's invention created. Instead of producing and distributing thousands of copies of documents we store information on electronic devices which are easily accessible and readily available. It is becoming more and more difficult to

find the appropriate information from the published material at the appropriate time. The issue in creating literary hypertext is not to select everything that one can lay one's hands on but to select the most useful information from the ocean of information available. Ted Nelson who coined the term 'hypertext' named his hypertext *Xanadu*. Conklin (1987 : 23) says "He named his hypertext system *Xanadu*, after the "magic place of literary memory" in Samuel Taylor Coleridge's poem 'Kubla Khan' ". Ted Nelson's *Xanadu* project of putting all information on one format and distributing through the network has not succeeded to date and I would have serious doubts about its success until some standardisation process is adopted. Nelson's *Xanadu* project may not have succeeded because the technology was new and it may not have supported the vast data that the project aspired to incorporate. One possible method to develop such a database may be to compile information relevant to different disciplines separately and then combine it to make a single database.

Hypermedia in language and literary pedagogy for want of a better term may be named 'technocriticism'. *Technocriticism* is ripe to become a new approach/method in literary theory. The birth of a technological approach to literary analysis is unavoidable because of the coming of age of educational technology and literary movements like structuralism, hermeneutics and deconstruction.

A general survey of the methods of literary appreciation makes it clear that literary criticism revolves around three aspects. The first aspect is the role or place of the author or creator of the text, the second is the importance or authority of the text itself and the third is the role of the readers with their exposure and training in different theories of interpretation of text.

In selecting texts for the teaching of literature there are two broad considerations: a) to teach minute details of the language to master linguistic devices and b) to acquaint

students with social and cultural symbols of the society that uses that language. Texts are written on issues which touch human sensibility and human emotions. Texts draw on two dimensions: one is universally true across periods like beauty, friendship, nature and the other is guided by contemporary situations like colonisation, poverty, revolution, technology and so on.

In the pedagogic situation a text is selected and then students and teacher read the text either in the classroom together or the students are asked to read the text on their own and then the text is discussed in a group. Different approaches have been adopted. Sometimes the teacher prefers to initiate the discussion and then invite the students to participate; sometimes the students are asked to lead the discussion and then the teacher summarises the students' discussion and adds his/her own comments. Depending upon the level of students and the permission of the teacher the discussion might take a wide or narrow perspective. There are positive and negative points to all the different approaches. More on it has been said in section 5.4.

The discussions on different texts in different courses take the same route (or approaches). To minimise repetition and maximise benefit for individual effort we suggest in this chapter standardising the hypermedia format for teaching literary texts.

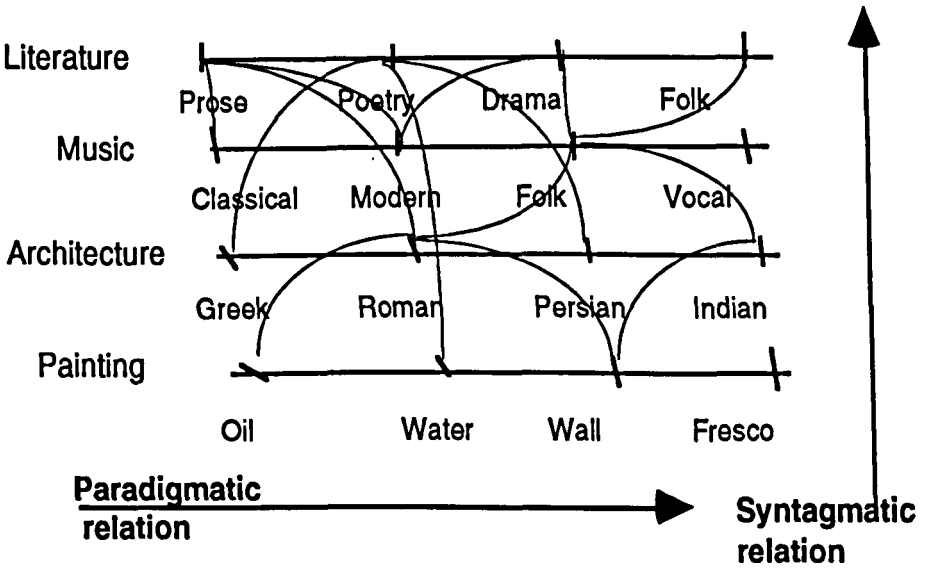
Most critical articles published in journals handle similar topics like the biographical influences of the author, semiotic and cultural factors of the language and so on. A more economical approach would be to collect information on common aspects at one place as attempted in *Technocriticism*. Text specific information can be put on the smaller programmes created around the topics necessary to be highlighted in the stack on the text under study. These programmes can be joined to *Technocriticism* through links. The repetition of information can be minimised by adopting this programme for teaching.

## 4.2 UNIVERSAL SYMBOL SYSTEM

If we look at the discussions in Linguistics and Anthropology regarding universal features of human languages and behaviour both the disciplines suggest that human beings universally have common habits and linguistic characteristics. These habits and expressions change periodically and these get manifested in the behaviour or activities of individuals of the group in acts like dancing or dressing or literary creation.

Incidentally painters all over the world use and manipulate three basic colours - red, green and blue - and musicians globally use the eight basic nodes to create all types of music. Just as language is universal so are activities like painting, sculpture, dance, music, architecture and the creation of literature. But none of the creative areas of *homo sapiens* can be analysed independently of other activities. For example any form of dance cannot be analysed and explained without the use of verbal language and social significance of gestures of hand, use of particular colours for dressing, the selection of music etc. We can explain this through the example of architecture as well. All cultures or national groups have some peculiar identifiable architectural design. We have Greek, Roman, Persian and other architectures but at the same time now we can witness similar buildings in all countries all over the world. Places of national importance like a head of the state's office or the museum building or the house of people's representatives' are most of the times made to look like native architecture. An interesting fact is observed going around the part demarcated as the diplomatic area of any capital of a country. We see buildings with totally unfamiliar architectural designs and start guessing their sources. They speak their nationality at least broadly. All these creative faculties again would have their significance and position in the complex web of social systems.

These relationships can be explained in two ways. First, through finding the linkages, amongst the symbols used in one creative art i.e. the paradigmatic relation. Second, through the relationship that exists among the symbols of different creative areas. This is the syntagmatic relationship. The units of structures in architecture would have their own grammar and the units or building blocks of different creative areas would be guided by a different relationship. These would together construct the significance of the symbols of a society. These symbols cannot be interpreted in isolation. Symbols created in literature will have to draw on symbols created in painting; symbols created in architecture cannot be explained without knowledge of social myths and beliefs.




(Figure 4.1 : Interrelationship of Symbol System)

Casagrande (1963, '66 : 290) summing up his research on universals says:

> It appears then that there are discoverable universal principles governing human behaviour that lie at a deeper sub-phenomenal level. Some might disdainfully comment that this is to rediscover psychology, and others protest that this is unwarranted reductionism.

For the first comment he says this is the predominant method of research and for the latter he says that valid concepts that permit comparison come from such studies of particular languages and cultures. He quotes H.C. Conklin (for colour terms in Hanunóo), C.O. Frake (for medical concepts) applying similar approaches. Franz Boas observed that I, thou and he occurs in all languages because all languages make the distinction between the self, the other and the third person (Casagrande 1963).

The arguments Casagrande uses to strengthen his hypothesis work equally well here. He quotes Whorf who says:

> This [in Carroll ed. 1956] study shows that the forms of a person's thought are controlled by inexorable laws of pattern of which he is unconscious. These patterns are the unperceived intricate systemisation of his own language--shown readily enough by a candid comparison and contrast with other languages, especially those of a different linguistic family (p 292).

On the basis of research of Osgood and Wallace and his own research he suggests

> It may turn out that what is universal in language functions much more powerfully, and in a more fundamental way, to shape men's thoughts than what is different (p 293).

## 4.3 STANDARDISING METALANGUAGE

The second aspect which needs universalisation is the level of jargon. Scholars from different disciplines and different geographical areas use different jargon to express the same ideas. Students of literature find it difficult to get to grips with the jargon of the discipline and quite often understanding the critical writing, explanatory notes and illustrations on literary works is quite difficult. This is especially difficult because new terms keep on adding to the vocabulary of criticism every day. The additions to

the vocabulary of literary theory come from diverse fields like Greek, Roman, Sanskrit, English, Dravidian and other languages and literatures. Literary theory has drifted far and wide and at times we find terms which are not used globally but only regionally. This is not something which has emerged because of diverse areas of study but because of limited channels of percolation of information. In critical reading hypermedia would prove to be very useful and helpful because of the expanding jargon of literary theory. Most of the students do not know and are not expected to know all 'technical terms' used for explaining texts. Hypertext would provide explanations for all such jargon at the tap of a button. It is for this availability of the explanation and unavailability of the criticism (or value judgements of an individual) that hypertext should be preferred to critical commentaries. The right of creative critical analysis of the reader is preserved. The user will have access to all different approaches proposed by different schools, periods and people but at the same time have the occasion to think in his/her own way. In the West what has often been discussed as the 'symbol' system was developed in India in the 5th century BC by Bhartrahari as the 'sphota' theory and quite a few literary commentaries originating from India use the word 'sphota' instead of 'symbol'. Similarly according to Shklovsky all narratives can be divided into plot and fabula. Later in the '60s to this list was added discourse on which the work of most French structuralists is based (Blanchard 1982). The information on narratives can be part of *Technocriticism* and reference to these can be made in explaining each text. This reference can be connected through links to the *Technocriticism* and avoid repetition. A number of terms express the same idea and type in literary theory from different schools. This has happened because no effort has been made to standardise the terms. This effort would bring forward all terms which have similar explanation and it would help standardise explanation and the jargon.

## 4.4 LITERARY UNIVERSALS

Linguists who talk of universal features concentrate on the basic words, similar grammatical features etc. in all languages. Anthropologists who are interested in universal features concentrate on common human activities and social structures. In literature universalisation will concentrate on areas which prompt authors to write on common themes. This will revolve on both linguistic and social universals. In creating literary hypertext we have to search for literary universals and apply the synchronic and diachronic approaches simultaneously. Beginning with diachronic study we have to identify the themes which are universally found in literatures of all languages. On a smaller level than that we can analyse idioms of different languages and on the synchronic level we analyse the basic words.

To begin with, data on selected areas on which literary compositions have been written can be isolated. In the beginning very broad areas will have to be selected. Every area will include binary oppositions. For example the theme of 'life' will include information on the topic of 'death' as well. A broad introduction of the theme can be given in the beginning but this will be modified and enlarged in due course by the users. These fields start by giving general explanation of the area. For example, '*Gyan*' has been selected as one of the areas. *Gyan* is a Hindi word which includes the words 'knowledge' and 'information'. *Gyan* does not only means the knowledge and information in the worldly sense but it incorporates the spiritual aspects of knowledge. Hindus believe as knowledge and information result in being learned.the person who has acquired *Gyan* is learned and so close to the ultimate truth. So all texts with a focus on any of the issues of (a) information, (b) knowledge, (c) learning and (d) spiritual power through learning and so on can be put into this field. As more and more users use it and include their examples and explanations the programme would become in due course a format where any student of any literature would be

able to search/browse through for explanation of any term used in any critical text (written in English) of any literature in the world. This would provide for a platform where study of comparative literature and comparative themes can be undertaken. Such a programme will be helpful in the teaching of English not only because English has a rich literary tradition but also because texts on socially and culturally new themes are being added to the corpus of English. Additions to English literature are being made from all continents. As human beings all around the globe are involved in identical activities all writings revolve around a fixed area of themes but the expressions in terms of reaction and in terms of language differs. Through quotations the students would be able to learn the nuances of language and through explanations the method of interpretation. So the same theme - for example natural beauty - is expressed in different ways by different authors.

## 4.5 PRESENT STATE OF THE ART

A study of comparatively small hypermedia programmes like 'The Masque of the Red Death' created on Edgar Alan Poe's story by Cady et. al. (1988) has already been discussed in section 2.4. Here we will discuss one of the largest systems ever created and used for teaching English literature through hypermedia - *Intermedia* - at Brown University in Providence. *Intermedia* was a networked hypermedia system developed by the Institute for Research in Information and Scholarship (IRIS). Describing the system Landow (1989a : 350) said:

> Intermedia is a networked hypermedia system. It is "networked" because individual workstations are joined together to share a large body of information, with the result that any addition or change to a document is instantly available throughout the system. It is "hypermedia" and not just hypertext, because it links images, graphic documents, and sound to the text.

> The Intermedia is built on top of the 4.2 BDS UNIX operating system and runs on IBM RT/PC and Sun workstations which support Sun's Network File System (NFS)" (Landow 1989b : 177). The Intermedia system survived for seven years but the system died because of the "change to Apple's A/UX that made the software incompatible with the current version of the operating system (Landow and Kahn 1992 : 149).

In spite of the withdrawal of hardware support Intermedia survived for two years but it seems it is now not available for inspection because the machines that could read these files are no more produced by Macintosh (see Landow personal e-mail May 4, 1994 in Appendix 8) . Because of the unavailability of the programme for personal examination and because of the unavailability of the hardware to run it (even for research purposes) impressions and information gathered from journal articles are being presented here. Though unfortunate, it is important from the empirical point of view that a system collapsed and a new system was developed. The developers must have retained only the helpful qualities and the bug-creating features must have been done away with. The goal of the course, Landow (1989a : 351) wrote, was to:

> enable students to describe the interrelations of authors, broad movements, and various extra literary cultural contexts, including those provided by social, religious, political, intellectual artistic and technological history.

These have traditionally been the favourite topics in teaching literary texts. The nature of assignment like "Suggest two links that might prove useful to readers of the novel (1989a : 351); "What do the maps of the railroads and canals tell us about the novel?" (op. cit. : 359); "Draw upon any relevant materials you have encountered in English or other courses or in your own reading." (op. cit. : 360) clearly show the hypertextual nature of evaluation which would prepare the students not only to study things in hyperspace but also prepare them to think hypertextually to answer exams.

Students can read the contents and write their comments on any of the fourteen networked PCs installed in the Rhode Island Hall on the University campus. The 'Electronic Classroom' was open on all days of the week for at least for twelve hours everyday (Landow 1989b : 176-177). *Context 32* is the "part of the [Intermedia] system devoted to literature courses" (Landow 1989b : 198). Circulation of ideas and non-face-to-face communication seems to have been a strong basis but most of the communication is through text. This could have been done by an efficient system of mail-distribution. *Context 32* is a supplementary material rather than an independent course. This supplements:

*English 32* : Introductory Survey of English Literature from 1700 to the Present (on authors, literary movements and genres)

*English 61* : Seminar on Victorian poetry

*English 137* : Anglo-American non-fiction from Carlyle and Thoreau to Chatwin and Didion

*English 264* : Graduate seminar on Victorian poetry; critical theory and hypertext courses.

*English 32* was one of the two pilot courses (along with *Biology 106, Plant Cell Biology*) taught since the spring semester of 1987. From the description (Landow 1989a, 1989b) it seems *Context 32* includes a wide variety of information like biography of authors, major literary trends and movements like Victorian and Feminism and definition of jargon like satire and sonnet etc. and specific articles on specific texts like 'Imagery in D.H. Lawrence's Prussian Officer'. All this was initially created to teach English 32 but was subsequently used for teaching other courses as well. The programmes used for developing *Context 32* are *InterText, InterVal, InterDraw and InterPix.* Digitised reproduction of pictorial material has also been incorporated. It is true the promise of hypermedia is to make available all

possible related information on the touch of a button but getting lost in the web is a very possible danger. The option of making available "all other material it cited" seems an ideal rather than a pragmatic option. All information generated by everyone may not be relevant and correct. It is apparent that *Context 32* has adopted the method of criticism on traditional topics and areas which have been practised even without the use of computers. It is often emphasised that the most important function of technology in education is to bring the expert to the student; to make experts available to students in all parts of the world. But the fact that *Context 32* seems to be ignoring the place of experts in such mass distribution texts is clear from the reports. Landow (Landow 1989a : 351) says "The present version, which has more than doubled in size, contains several hundred files created by students as part of their assignments". Since *Context 32* collapsed along with Intermedia, IRIS developed 'The Dickens Web', a hypermedia programme to teach Charles Dickens' novel *Great Expectations*. Landow and Kahn (1992 : 150) say "It containing [sic] 250 documents and 680 links which occupy 2.5 megabytes". It is amazing why the developers decided to do away with the authoring quality. Authoring has been one of the most important aspects of computer based teaching but Landow and Kahn (1992 : 151) say "for this experiment we considered The Dickens Web to be a read-only hypertext, a collection of information to be added to or otherwise modified". From the previous experiment it seemed most of the authors were the students of Landow and they joined to exchange views and in the process develop the programme. If Landow and a few other colleagues are the only ones contributing how is it different from classroom lectures or printed hand outs in hypertext format?

The equivalent of HyperCard's 'stack' in Intermedia is 'web'. Landow and Kahn (1992 : 150) say "the term web indicates a set of links joining documents on a similar topic". In the Dickens web there are two overviews, one created around Dickens as an author and another around the work *Great Expectations*. A later addition to the

*Intermedia* has been *Context 34. Context 34* is "the Soyinka web, a set of more than seventy, mostly student-created, documents - and its offspring, *Context 34* which is six times as large" (Landow 1992 : 145). Landow himself admits "of course, the present hypermedia corpus cannot rival what specialists in African literature, history, and culture might create were they given a year or so". Landow (1989b : 176) feels *English 32* will "enable students to describe the interrelationships of authors, broad movements, and various extra literary cultural contexts, such as the social, religious, political, intellectual, artistic and technological history" which is not usually found in traditional surveys. To my understanding most of our critical analysis focuses around the author's life as shaped by his/her social, cultural and historical background. Do we not most of the time read Wordsworth as the nature poet from the Lake District who lived with his family and sister who rebelled against the traditional norm of poetry writing? Because of the availability of technology for easy transfer of information, texts have become global in nature. This has been facilitated by the common medium (English obviously with geographical differences) of communication. I feel that these are not absent in conventional teaching but what is missing is the correlation of literature to social activity and other arts from which hypermedia is capable of relating information and drawing on teaching. It is true hypermedia has provided the quality of connectivity of literature to the creative arts and society and made the content or index page of the book a redundant feature because there is nothing like the beginning and the end of information. Information has to be placed in context. Landow (1986b : 179) emphasising connectivity as the central character of hypertext says "hypertext is characterised by connectivity; to realise its potential one must employ directories that enforce the quality emphatically". The 'overview files'; the substitute for 'contents' prod the user to explore on one's own but in following the goal of developing critical and independent thinking the reader might be lost in the 'hyperspace'. Dowling (1992 : 180) expressing similar views of *Context 32* says "I was dissatisfied with the idea of amassing texts" and

gives similar reasons of duplicating library-like material which our students have at hand. What is needed is training in "treatment of the 'literary' qualities of the text". Landow (1989a) says as the student opens the English folder a list of seventy folders appears with topics like "name of authors (Austen, Joyce), historical phenomena (World War I) or concepts (Romanticism, Feminism)". Later an overview or concept map appears but from the picture (Landow 1989a : 356) it seems that finding relevant information could be very difficult. This suspicion cannot be proved or disproved at this time because as late as 1992 when the developers had the option of changing the format they didn't. Landow and Kahn (1992 : 151) "expected that users would take advantage of the web's interconnectivity and reach a particular document by many different paths". If this sort of connectivity has not posed any problems in finding one's way this is an encouraging sign.

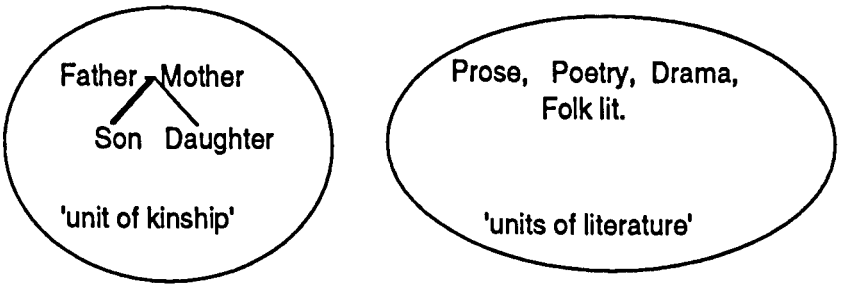
Even though not a major concern of standardising here the choice of hardware and software is no less important. The *Intermedia* system was developed on the Apple's A/UX (Apple's version of UNIX : see Appendix 8) but collapsed and now it is being run on "Storyspace for the Macintosh, published by Interface 5 document preparation system published by Interface Inc." (Landow and Kahn 1992 : 151). The consideration in selecting these systems published was they say as follows:

> We wanted a final result that could be used by our own students as well as by those at other institutions. We therefore sought commercially available hypertext software for either of the two commercially available platforms, Macintosh and DOS/Microsoft Windows (op. cit. : 150).

This Landow and Kahn (1992) put as the first consideration in translating The Dickens Web. It is apparent that they have a standardising process in mind. They want to use a standard machine which can be used universally.

## 4.6 PROCESS OF STANDARDISATION

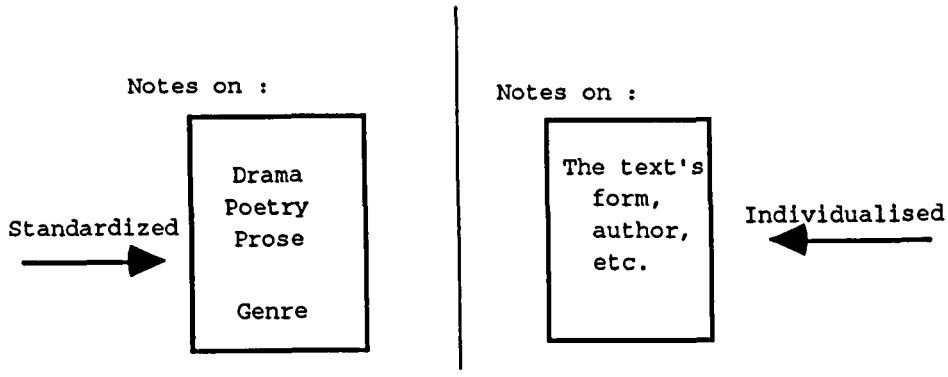
The process or the methodology of standardisation has evolved through ideas derived from different disciplines and schools of thought. Influenced by the structuralists who see things not as abstract entities but as a relation of abstract entities in relation to the system we get the idea that words are not entities with meaning of their own. They are abstract entities which derive meaning also from the words and genre of the text in consideration. It is difficult to represent schematically the process of standardisation because the concepts and ideas do not follow each other but develop through mutual interaction. In the process suggested there are basically two levels - the level of genre and the level of themes. Levi-Strauss refers to the Father-Mother-Brother-Sister as "the unit of kinship" in analysing the kinship terms and their meanings. Even though anthropologists studying different societies say different things about the place of father, maternal uncle, paternal aunt and so on the relations are established only in relation to the family as the unit. This family is the unit of four. Similarly in literature we might treat themes differently from one area to another but the units of analysis remain the same - the genre. The level of genre should hold




(Figure 4.2 : Finding units of literature)

information on different genres and also jargon connected to it. The level of theme should try to identify a finite number of themes around which the whole of literary activity revolves. It has not been aspired and should never be aspired to prepare an exhaustive list because local variations and latest developments will always have to be

added. As the activities of humans are equivalent not identical the entries would look for equivalent literary texts.




(Figure 4. 3 : Levels of standardisation)

At the beginning of any literary creation is the crucial decision by the author to make a choice whether to write a piece in prose, poetry or drama. Once the author has made that decision he/she usually follows the conventions of that genre. These conventions are decisive also because, depending on the theme, the topic will have to fit in the tradition of that subject. New themes and treatment of themes may change with time and change in ideology or once in a while a non-conformist may like to adopt a new convention altogether. For example Wordsworth's *Lyrical Ballads* is subscribed by some to be one such example which brought about a revolutionary change in the poetic language. Wordsworth argued in favour of adopting everyday language for poetry as against the Augustan favour for 'poetic language'. He also broke the existing norm of special poetic themes.

## 4.7 WORD AS THE UNIT OF LITERARY ANALYSIS

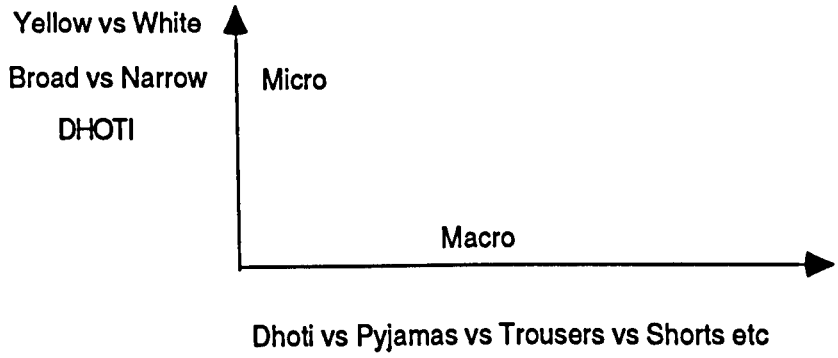
The basic unit of verbal construction, whatever genre we take our text from, is the word. These words change meaning depending upon the context. This idea has been conceived on Levi-Strauss' analysis of kinship in different societies. He says there

exists a positive relation and also a negative relation amongst similar relationship in different societies. For example the attitude of the son towards his father as of authority and his maternal uncle of respect will depend upon "the descent that determines the choice of opposition" (Levi-Strauss 1963 : 41) but the unit - family - still remains that of the father-mother-brother-sister. Similarly the choice of opposition in literary analysis will depend upon the literary tradition and the theme of the text. Words are also types and carry the myths of a society. For the same reasons phrases and idioms and also quotations in texts are important points to be explained. The meaning would depend upon the genre that is being studied and the treatment of that theme in that genre. For example treatment of war in prose as against poetry will be difficult because of the length of the text. Identical issues may not be dealt with in two genres. Here it is important to mention the differences between a text written in a particular language and a translated text. In the case of a text translated from a different language, for example from Hindi to English or vice-versa, the role of the translator becomes that of the transcreator of the text. In translating a text from a language spoken in a contiguous area and mutually intelligible (for example to Magahi from Bhojpuri) the translator's role is limited. The translator and the creative writer fall under the same category because the meaning of the translated text, if not totally dependent, at least greatly depends on the translator's selection of the words and grammatical structures.

Linguists like J.S. Greenberg who have studied the universal features of language also support the idea of basic word list. The idea of basic list appeals also because humans all over the world have similar basic instincts. Literature composed in different languages hovers around these basic 'thematic' lists.

Ferdinand de Saussure has suggested that the meaning of anything has to be derived in two contexts. The first context has to be the broad context as the system. This can

be explained through an example. The meaning of any symbol can be explained through the relationship of that symbol to other symbols of that system. For example the meaning of 'dhoti' in the whole garment system of Indian men's dressing will have to be explained through the whole garment system. Traditionally the breadth of dhoti - to the ankle (upper caste) or to the knee (lower caste) has its own meaning. The significance of yellow dhoti as against white dhoti (yellow worn on occasions like marriage, prayers, etc. and white worn on occasions like death) will

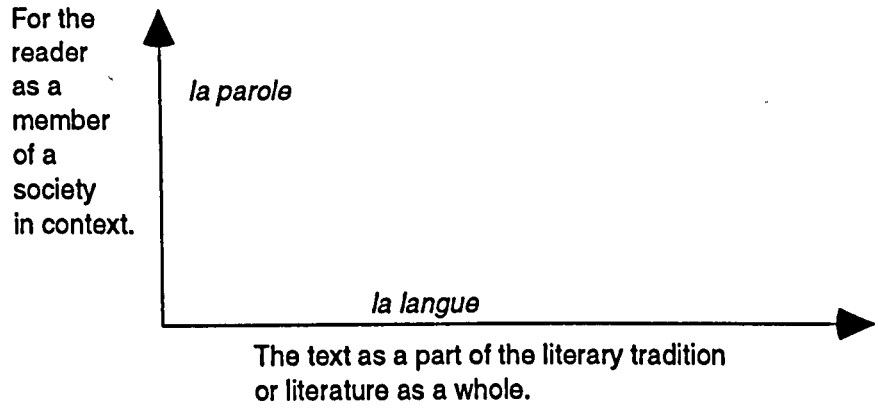



(Figure 4. 4 : Interrelationship of Symbols)

have specific meaning. Similarly the meaning of the word has to be in the context of language as the system of communication. The meaning of a word in a literary context will also derive its meaning in terms of the literary tradition in which we are talking at the present time. The second and the micro context has to be in terms of the individual reading the text and the context in which he is reading the text. Saussure names the first the *la langue* and the second *la parole.*

In Chapter 1 in the context of *Man Eater of Malgudi* with regard to the implication of garment on communication Nataraj the protagonist a god fearing, honest man wears dhoti whereas Vasu an alcoholist and a poacher wears trousers. These may fall under micro studies and information on these will have to be added depending upon the user group. If the hypermedia is used only for teaching to Indians such information may

not be relevant but if it has to be used by non-Indians such information will be helpful.

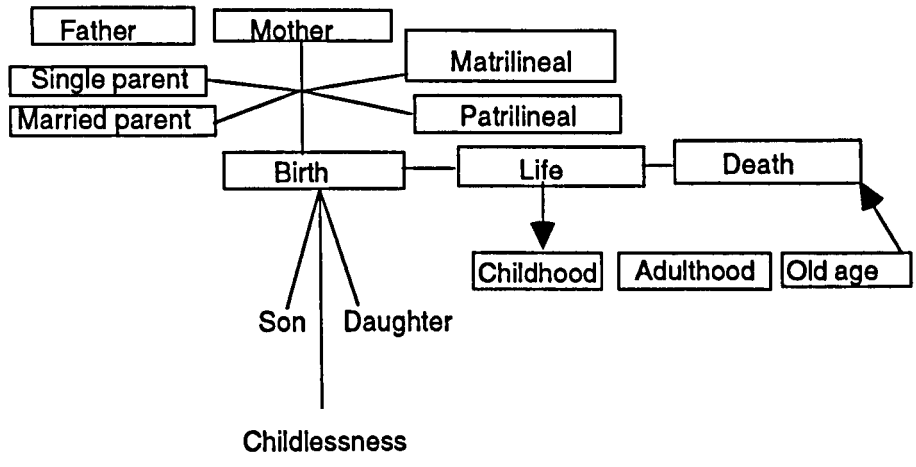



(Figure 4. 5 : Reader-Text interface)

Readers are cultural, sexual, racial, individual beings as against the belief of some that the readers are neutral. Some have pleaded that readers see things as they want them to look like not as the author wants them to look like. These will have to be added by the teachers in the context in which it is adopted as a teaching tool. If the hypertext is adopted for teaching to Indians the racial question is not very important because the society does not have people from different racial backgrounds. But in the context of Britain and America the racial treatment might play a dominating role because the society is divided on the lines of races.

This process of interpretation is crucial because the process of reading can be of different types depending upon the interest and level of the reader. It has been suggested above that 'beauty' and 'race' can become a thematic headings but these are social constructs and these entries and the explanations given to them may not be relevant for all societies alike. The process being suggested for hypermedia is comparable to the process readers apply in the reading of printed text. To begin with only the very apparent surface level similarities can be looked at. But below the surface level minuter similarities and differences can be examined. Here collocational

and oppositional ideas/themes can be examined. The lexical diversities might sway our search but this can only be successful if the meaning differences enforced because of different cultural differences in language are ignored. The cultural universals will be helpful in finding meaning-generating symbols and the language universals provide us with communicational symbols. By cultural universals we mean similar human activities like birth, marriage, death etc. By language universals we mean lexical items that express these phenomena or human activities. The cultural universals are identical but language universals are equivalent. The language universals are not similar because of the cultural differences. Languages are not identical because different 'social groups' adopted different forms to manifest their activities. Studies in language maintenance and change say differences in manifestation are a result of the social intercourse, geographical conditioning, scientific developments and so on. To explain it further we can say for example that the birth of a child is the result of an identical process - male-female mating - but it is ascribed different names. These names have different values which depend upon different groups. The birth of a child (a male vs. female) is not the same in all societies. It is an occasion for celebration but in some societies sometimes the birth of a female child is not a happy occasion. A child born of unmarried woman is for some societies a cause of shame and strong evidence for the mother to be outcast or persecuted. A cursory study of the birth theme will make it clear that the birth as a result of male-female mating, woman as the carrier of the baby is common and generally the birth of a baby is a happy occasion. The differences or binary oppositions are the differences in attitude of some societies and the pain in the death of anyone. So the structure would be :



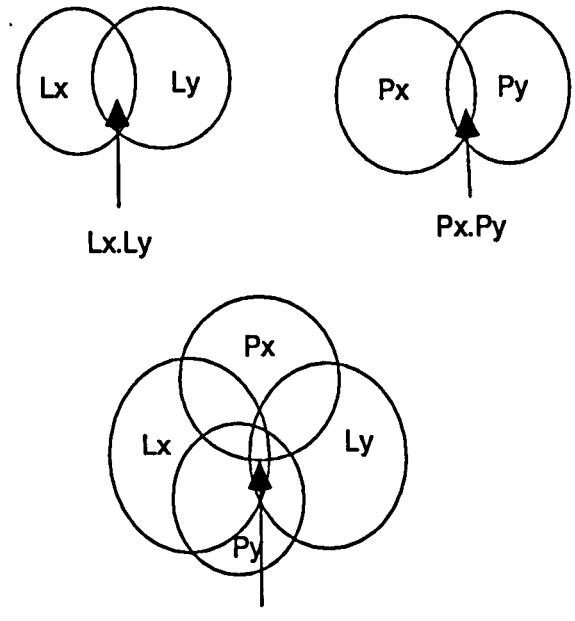

(Figure 4. 6 : Development of literary themes)

The thematic grid created around 'Birth' may look like that presented above. It may be possible that the title of the theme instead of 'birth' can be 'life' or 'death'. It has already been mentioned that binary oppositions would fall in the same theme but all themes are not always in binary opposition. As seen above 'life' falls in between 'birth' and 'death' so such grey areas will have to be incorporated in themes where we find them.

A glance of the above grid immediately makes it clear that searching a sub-theme like 'single parent' or 'patriarchal society' may be difficult. Two ways can be adopted to avoid this. One can be that all information provided on sub-themes be read only and the readers view/read them only as references. This will enable the developer to lock these screens and the reader return to the screen from where he/she arrived. The second (although not subscribing very much to the hypertext philosophy) can be that the readers return to the central grid i.e. the grid shown above and then go to any other theme or sub-theme.

Once a finite list of themes has been found a comparative study of the treatment of that theme in different creative arts may be taken up in the same society or group of that literary tradition. Further to that we may in developing instruments for universal use

employ visual symbols from different societies. The process of finding the common features between different creative arts can adopt the following procedure:




(Figure 4. 7 : Common features of different creative arts)

In the above diagram L = literature, P = painting, x and y = societies x and y. It is assumed that in the literatures of societies x and y, Lx.Ly are the common themes on which both societies have produced texts. It is also assumed that in the painting tradition P of societies x and y, Px.Py is the area of common themes. Now if we compare only these areas of common themes of literature and painting we get the Lx.Ly.Px.Py area. It is expected that if common texts Lx.Ly are illustrated by common pictures Px.Py a better understanding of the texts can be obtained.

The comparative study of different creative arts and the similarity of idea expressed through different media seems at this moment to be an important but hereto neglected area of study. Laude (1972 : 479) writes "For Picasso, words are not signifiers; they are objects with which he fabricates meanings. When he writes, he uses words in much the same manner as he uses forms and colours when he paints". The question

which needs to be examined for developing truly hypermedia programmes is 'Do contemporary creative arts convey the same message?' The comparative study of the power of paint and the words (or phonemes) to convey information and feelings is an important area of study which should precede the creation of hypermedia. Through comparison of leading creative pieces of a particular period this question can perhaps be answered. The arbitrariness aspect of language percolates through all creative arts. What needs to be answered is whether there is any relationship between a particular colour and its significance, a particular architectural design and its significance. Jakobson (1987 : 417) says:

> ... the difference in the size of figures has divergent meanings in the various pictorial codes; in certain medieval tradition of painting, villains are specifically and consistently represented in profile, and in ancient Egyptian are only en face.

The argument can be further expanded if we examine that words, colours, musical compositions all collect meaning through conventions and these meanings are socially determined. What I am trying to convey here is not the surface level broad themes but the deep level semantic and syntactic relationship between elements. To put it precisely I am trying to put forward that research trying to find the relationship between colour and theme of expression (red for violence!; red and green for violence between races! etc.) may help in developing hypermedia instruments because the psychological implications of these is perhaps highly suggestive. Jakobson has in his writings hinted at such comparative themes. He says (1987 : 424)

> Star means either a celestial body or a person - both of permanent brightness. A hierarchy of two meanings - one primary, central, proper, context-free; and the other secondary, marginal, figurative, transferred, contextual - is a characteristic feature of such asymmetrical couples.

## 4.8 LITERARY CRITICISM AND HYPERMEDIA

The process of hypertext creation will also be influenced by the reading habits of the readers. I have already discussed in the thesis before different approaches that may be taken to understand texts (see especially sections 1.2 and 2.3.1). All students of literature, for sure, apply some critical thinking but we can never be sure if they are applying the critical method of reading which they would like to or they are applying one because their teacher has unconsciously biased them to see a text in a particular way. A Marxist or a Structuralist or any '-ist' teacher is likely to bias the students for a particular approach and thus cripple students' capacity to see things in an original fashion. Some readers prefer to read the text in-depth - understanding the meaning of each word and each sentence (the process frequently named text-centred interpretation or what T.S. Eliot called the "lemon-squeeze school of criticism"). Buttons created around words and phrases will perform the same function. They provide meanings of words, phrases, idioms and social symbols. This can also be equated to the approach of the New Critics and also to the Russian Formalists. The New Critics opined that criticism should confine itself to the text instead of informing about the place and time of the creation of the text or the author's personality. This approach has its strong points. Influenced by this approach we favour providing as much information as possible on-line through buttons created around words, phrases, idioms.

Opposed to this approach are the sociological, psychoanalytical and Marxist positions and those of others who think the text is part of the author's personality. Those who support this approach do so because they do not regard the relevant experience of the author separate from the text. It is only this individual's experiences which are translated into the text. The psychoanalytical school of criticism supports the analysis of the author's language because it considers the language of the individual a window to the author's mind. Marxist critics consider an author's biography important

because the author belongs to a class and s/he can only express the experiences s/he belonged to. As far as the information on the theoretical approach is concerned it should find a place in the area on poetics (used as a cover term for literary theory and literary criticism). Information on an individual author will form part of the hypertext created around each text.

## 4.9 SUMMARY

In this chapter we have suggested that hypermedia programmes should be created on issues and themes which are international in character. For developing truly hypermedia programmes we must first study the complementary areas of different creative arts; only then can the teaching of literary texts gain from the development of this new technology. In the next chapter we will examine the different formats of hypermedia technologies available and select the format for the development of the programme for my study in India.

# CHAPTER 5

## SELECTING SOFTWARE AND THE AREA OF STUDY

CONTENTS

## 5.1 INTRODUCTION

In the previous chapter I tried to summarise ideas from different disciplines and mention methods and media that could be employed to develop hypermedia programmes for teaching literary texts. Having decided on the structure of the hypermedia programme for universal use it was now necessary to find out about the available technologies for developing *Technocriticism.* To put all these into practice we need a platform i.e. a machine or a hardware and also a programme - software which will enable us to put all the information in the desired format.

As the study is directed to the needs of advanced level students of English in the Indian universities it is important to review the technologies available to them so that a matching platform is selected for developing the platform to be tested in India.

The aim of this chapter is to select a platform from a whole range of technologies available for developing my programme and from technologies available in the Indian universities to run the programme.

It was now amply clear from the studies on computer based small hypermedia programme like *The Mask of the Red Death* discussed in chapter 1 and large hypermedia programme like *Context 32* developed at the IRIS discussed in chapter 4 as against the print based hypermedia programmes, as reported in Chapter 3, that computer-based hypermedia programmes were far more superior in terms of holding information, connecting information and presenting it to the learners in a fashion that made reading and learning experiential rather than print-based multimedia programmes which failed to do so. From the research presented in earlier chapters it will be apparent that multimedia teaching can fall

under three categories : (I) print-based multimedia, (II) disk-based multimedia, and (III) networked multimedia.

There are now a number of platforms like CDTV, CD-I etc. and technologies available for presenting information in the hypermedia form. Multimedia seems to have expanded and seems to be changing our lives with a speed which perhaps no previous invention has done. The invention of the wheel, the invention of telegraph, the invention of photography, the invention of the printing press are all landmarks in the history and development of the human race. Unlike these inventions multimedia is a blending, a marriage of existing means of communication. But like the previous inventions it will change the way we think and communicate. The agent of this change is the computer.

In most multimedia programmes today pictures and sound are accompanied by text to make a rich overall impact. It is felt that if they are presented sequentially they might not succeed in making a substantial effect. Developing a multimedia database would require time and familiarity with different areas of knowledge. This can be substituted by a group endeavour. Frequent feedback from the users is also important so that additions and deletions could be done simultaneously. Such a project would also help find the users' natural inclination (direction and pattern) for navigation. In the absence of a study describing the reading pattern the present research has largely been one person's effort and understanding of the reading habits of users based on current theory.

As it has already been discussed in chapter three the traditional conventions of paragraph, pagination, table of contents and index are all text based hypertext which are manual and slow activities. Printed texts also are closed and fixed. Readers have no say on the content, form or on the appearance but hypertext by nature is open

ended and enquiry oriented. In printed text efforts are put to a final shape and are permanent for some time, till a new edition of the book is brought out. In hypertext efforts accumulate and can be updated in spite of the change in author or editor. The boundaries of disciplines tend to dissolve. Developments in different disciplines can also be incorporated to help the users interpret text in the light of the most recent developments. This is not possible not only because of the permanent nature of the printed text but also because of the constraint in the length of a book. The multimedia technology will redefine the word 'knowledge' because the one who is well informed today does not only prove that he has sat at the foot of great teachers and been to good institutions but shows that s/he has known or has explored her way to information or has a better reading technique. The informed person in future will be an inquisitive and trained reader.

The technique part has become important because now information comes in different formats for better retention, for example the spread sheet transforms a data into charts and diagrams automatically. Precisely a CD made around a novel can show the text and also show the portion dramatised at the click of a button. What has become important is that the user selects the right programmes and knows the correct commands to get the desired/most appropriate information.

As hypermedia is a new medium and a method, sufficient feedback on its efficacy and usefulness is not available. Although Adam (1993 : 25) quoting Rodney L. Miller, editor of *The Multimedia and Video Disc Monitor* newsletter says that Miller claimed "More than 30 studies have found that interactive technologies speed learning and often test scores rise, too" one has to wait until these claims are verified and the basis of claims examined. Video disc and similar multimedia that emerged from computer technology are quite different from computer based multimedia. In the next section we discuss the present state of hardware and

software in computer based multimedia technology and the process of development of *Technocriticism*, an interactive multimedia programme used in the current study.

## 5.2 COMPUTER-BASED MULTIMEDIA

The etymology of computer based multimedia programmes can be said to start with the birth of hypertext. They are now better known as hypermedia. Conklin (1987 : 17) defined hypertext thus

> Windows on the screen are associated with objects in a database and links are provided between these objects, both graphically (as labelled tokens) and in the database (as pointers).

Leslie Mapp (in 'Introduction', *envision*, September 1993 inside cover) says "... because multimedia is as much a concept as a technology, it has not been easy to define". Mapp is not the first to show inability in defining this new technology. Conklin (op. cit. : 18) said:

> one problem with identifying the essential aspects of hypertext is that the term "hypertext" has been used quite loosely in the past twenty years for many different collections of features. Such tools as window systems, electronic mail, and teleconferencing share features with hypertext.

The core of Conklin's term hypertext seems to be machine supported inter or intra links between documents as he further qualifies the term by saying:

> ... database management systems (DBMSs) have links of various kinds (for example relational and object oriented links), but lack the single coherent interface to the database which is the hallmark of hypertext (1987 : 18).

Different people in different places have defined multimedia in different ways.

Mapp further says :

> Technically, it merges computing and television, combining the speed accuracy and modelling power of computers, with the affective and illustrative power of the moving image ... Educationally, multimedia is important because it brings new kinds of learning resources [from the]... talking dictionary to the music study programme; from the audio-visual collection of photographs to the direct teaching of adult literacy ...

But the most important point is made at the end of this 'Introduction'. Mapp notes "Finding the best ways to do this of course, will be the task of educators" (op. cit.). Different components of modern multimedia - text (alphabetical and numerical), image (still and moving), sound (verbal and musical), programming (binary and linguistic) - developed independently but now have joined together to give birth to a new medium - hypermedia. It will particularly help the distance learners who are on their own with little or no institutional support in the form of supplementary or complementary reading material but be of no less help to learners in the conventional system. The classroom student may use it to verify or go ahead of what the teacher referred to in the classroom and the distance learner may use it to read what the 'Further reading' suggested in the course books. Hypertext will help develop a process of thinking. As Conklin (1987 : 32) says :

> a better description would focus on hypertext, as a computer based medium for thinking and communication.

It might be argued that reading from a printed text, then listening to the relevant recorded portions on a cassette player and viewing visually relevant material on a video recorded version would be the same so why bring in this new and expensive (in terms of creation and playback) process of multimedia? The answer to this is that multimedia has a cumulative effect and it is not a case of 1+1+1=3 but of 1+1+1=6

perhaps. There is a widespread belief that people have short-term retention of about 20 percent of what they hear; 40 percent of what they see and hear; and 75 percent of what they hear, see and do. By employing video, sound and interaction, interactive learning resources provide the best chance for superior retention ("Amthor : 29, in Perzylo 1993 : 194). The 'doing' aspect in multimedia is enhanced by interactivity. The lesson or the programme can be built to demand constant feedback from the user. The process of involving the user and providing the desired answer or information is broadly termed interactivity. In the next section we will examine what interactivity is and how it will help the cognitive process.

## 5.3 INTERACTIVITY

Interactivity is a software problem and howsoever sophisticated the hardware may be it cannot make a software interactive. One major development conjoined with the development of multimedia is the concept and practice of interactivity. A related concept in the field has been 'learner autonomy' which means the freedom of the learner to decide on means and methods of learning. The term 'interactive' has entered the glossary of Information Technology (IT) with the videodisk coming into the market. Interactivity implies that the learner is not guided by any pre-set path by anyone - teacher or machine. The learners start from a point and follow their own path depending on the area of interest and availability of information. So this has changed the role of learners and teachers alike. The learners have to be active and not be dependent on the teacher to be 'spoon fed'. The teacher has to keep adding more and more information to answer the enquiries of all learners. Tucker (1990 : 28) summarising this aspect says:

> In interactive media there is some feedback between the learner and the teacher. Interactive multimedia implies the creation of knowledge-based learning environment in which the developer, teacher and learner exist in a

symbiotic relation.

The most important cue in Tucker's observation is that there exists a "symbiotic relation" between the developer, teacher and the learner. It does not exclude the teacher's role and in fact there can be no teaching without a teacher. The role of the teacher might be different from the traditional classroom teaching. Conklin (1987 : 33) says

> From a computer science viewpoint, the essence of hypertext is precisely that it is a hybrid that cuts across traditional boundaries. Hypertext is a *database* method, providing a novel way of directly accessing data.

Both the points of hypertext being a database method and the symbiotic relation of users are important. Database methods are such bodies of data which accumulate information and swell to become a source of information for queries. But the process of creation of such databases should depend on the intelligent queries of the users and informed answers of the teachers/writers. This process can be achieved only when a group works in unison.

The use of the computer as the delivery medium is not a precondition for making a programme interactive. So many computer programmes are totally linear whereas so many texts like *Literary Studies in Action* by Alan Durant and Nigel Fabb (1990), and *Teaching by Self Instruction* by Derek Rowntree (1986) are very interactive printed books. Most open learning materials are interactive. The use of computers as the developing tool as Desk Top Publishing (DTP) have made the development of study material possible to suit small groups' needs in amending material to incorporate the latest developments. Tucker (1990 : 33) further says:

> The whole point about interactive text is that it can be instantly amended (daily if necessary) to reflect feedback from the users or from the real world.

> A quite recent development is the advent of software packages which allow a 'hot' connection between the text and some other application, for example a spreadsheet or databases. Changes in the databases would have a ripple effect on the graphs and charts in, for example, a piece of interactive text. The database itself might be linked via modem to an external source elsewhere in the world ...

Interactivity is an important aspect of multimedia programmes. Multimedia programmes, as stated, take advantage of different response-evoking stimuli (like audio, video and text) for making an overall effect. These stimuli are possible from video and texts including graphs, charts, photographs and sketches accompanied by verbal commentary. But these programmes are so designed that the user follows a linear pattern from the beginning to the end. The user can skip portions but rarely shuttle between chunks of information without losing track. Losing track of the location can be major problem because these programmes can hold huge amounts of information and if the learner is lost s/he may not find it easy to get to the same point. Even though a back-tracking device is provided in HyperCard, in some other multimedia programmes this is not available and particularly new and young learners may get swayed with the flow of colourful and alluring information. This sort of browsing facility provided in hypermedia might add to the knowledge of the learner but may not be relevant information to the area being studied. In the first instance the general awareness and information level of learners will go up because of the ready availability of information and second it will help decide on a pragmatic syllabus empirically determined through the feedback from the level and quality of information used by learners. Presently syllabi are arbitrarily made by the planners or educators. They do not meet the aspirations of the learners. The programming part is vital because it can enable the users to explore and process information relevant to their needs and arrive at the same or desired locations. It starts by demanding an active participation by the user and put the user in the controlling position where s/he decides on the information s/he would like to have.

This idea might not be accepted by those still sticking to traditional teaching methods but those who have been involved in creating and teaching with hypermedia would air similar views. John Huntley who developed a system for teaching Milton through hypertext says:

> The more freely and creatively people work together, the more inappropriate it feels to me afterwards to re-express the value of their work by an academic grade. Grades are always mechanical and usually divisive. And yet, students don't pay us for knowledge or learning. Not being a commodity, an educated state of mind can neither be bought by them nor sold by us. Rather, students pay us for testimonial certificates which they believe will raise their value in the eyes of employers and the world of commerce" (Huntley 1991 : 76).

With hypermedia the philosophy of education will necessarily change to more autonomy for students regarding selection of study material and the way they want to be evaluated. The acceptance of the idea that the user or the student can be part of the planning or design has brought in the concept of authoring. Authoring is another important aspect of multimedia in education.

## 5.4 AUTHORING

Authoring is the capability of writing a software programme which subsequently works as the user of the software wants it to work. Traditionally this task has been handled by professional programmers who are known as 'Computer Software Professionals'. These professionals at times dictated the type and quality of content that could be presented. The teacher had to take a back seat. Now the programmers are forced to occupy the same place in electronic publishing as typesetters have in traditional printing. Adams (1993 : 23) defines authoring software as:

> software that helps developers create multimedia programs or presentations without requiring the painstaking skills involved in traditional programming.

Even today most word processing documents are written by programmers and they cannot be 'customised' for specialised use because the programmer decides on the language (Basic, Cobol, C and so on) he will use for writing software. Authoring systems let the users write commands in a simple language. Authoring programmes will always be short of expectations as new uses and requirements will keep occurring and new authoring programmes will have to incorporate them. John Huntley, Professor of English at the University of Iowa, experimented with teaching Milton through multimedia. He chose HyperCard to be the platform. Huntley says the reason for deciding to teach Milton through computers was because the price of the book was once again raised. Huntley decided "to grope for something cheaper and different" (Huntley 1991 : 62). After the successful experiment Huntley reports:

> Throughout the semester, most observers would see that these students were having fun and getting better. They enjoyed interacting with each other, exploring Milton's poem, browsing through books and articles in the library, and mastering the computer. For a rough and ready experiment in "new ways to study literature" we all felt pretty good about ourselves (Huntley 1991 : 79).

In other technological productions like the audio and video programmes the producers were forcing the form and the final appearance but with the authoring multimedia programmes the teachers are again in the helm of the affairs deciding on preferences and presentation. It is not the computer scientists or the publishers of printing industry who are dictating teachers to tailor the contents according to the platform but the teachers who are determining the format. In the traditional classroom even if the teacher tried s/he could not put new face to each student's book but with authoring programmes each student can be given a 'book' (loosely

speaking) suited to his/her needs. The author of the text is eternally alive in this context; he is not frozen, or to repeat Barthes' term the publication of the book is not 'the death of the author'.

I think the place of the teacher or editor should still be maintained as someone special who can select or reject from the data entered by the users, otherwise the programme will lose its credibility and standard. Huntley (1991) experimented with extending the authoring to all users to enter their views nearly unedited. They formed groups amongst students who read, edited and finally selected the materials or rejected them. But finally at the end of the course Huntley realised:

> despite the caveat, 'no pedantic annotations,' editorial control over what was submitted and what ultimately entered the stack wasn't tight enough. Nobody wanted to rewrite somebody else's work; nobody had time to check quotations and page references; nobody felt like questioning relevance, phrasing, style, etc. (p 81).

## 5.5 PRESENTATION PLATFORMS

The hardware which can run multimedia programmes can be divided into two different types. Ones that have been developed only for multimedia presentation and second those that can *also* run multimedia programmes. 'Only multimedia' platforms are Compact Disc Interactive, Imagination Machine produced by Philips (CD-I) and CDTV. The software is supplied in the form of a compact disk and are again like printed books which once made cannot be changed. The Philips CD-I, released in the U.S.A. in October 1991 and in the U.K. in April 1992, is at the moment the most popular of the CD machines. This machine can play CDs of all types and the image can be seen on a normal TV screen. It does not have real time video but pictures and simulated cartoon presentation. However this machine cannot work in conjunction with a computer so the text and pictures cannot be adapted for

individual needs and it also needs a special remote control. 'Language Director' as they (Philips) call the 'language learning system' of the CD-I has three languages: English, French and German. Each language has three levels. The first level develops a 500 word vocabulary, the second level teaches another 500 word vocabulary and the third level adds 650 words to the previous total. The learner can listen to the programme in English, French, German, Italian, Spanish, Portuguese, Dutch, Finnish, Swedish, Norwegian, Danish, Japanese, Chinese or Slovakian. The programme caters to pronunciation aspects by articulating the sound as many times as the user clicks the button, and to grammar by correcting the incorrect sentence and tests memory by giving visual stimulus by showing pictures and asking for words. Listening comprehension is tested by giving a picture and given three spoken sentences and the user has to mark the correct answer. The sound can be delayed to practice spoken parts.

Most computers nowadays are dual-purpose platforms. These were not purpose built for multimedia platform but are capable of such a use. A special CD-ROM drive can be inbuilt into any 386 or later machine. Any dual-purpose computer will have to have a minimum 386SX processor, SVGA display, 2MB RAM (4MB is preferable), 30MB Hard Disk, 2-button mouse, Windows 3.1 or DOS 5.0 or above with audio attachments (a sound card speakers or headphones). Besides others IBM PC, Apple Macintosh are dual-purpose platforms. The benefit of having a dual-purpose platform is that personal photographs and visual material can be incorporated in the material through a photo-CD if pictures of these material are taken.

### 5.5.1 COMPACT DISC (CD) - READ ONLY MEMORY (ROM)

Digitisation of audio started with the preparation of the Compact Discs (CD) in 1982. CDs are Read Only Memory (ROM) and the user has no say on the content or

presentation of the information. The important thing about digitisation is that all types of data whether audio, video or computer generated can all be put on the same platform. "Each disc can hold around 650 megabytes or the equivalent of about 250,000 typed A4 pages (Steadman, Nash and Eraut 1992, 5; quoted in Perzylo 1993 : 191). "The information is delivered at 150 kilobytes per second. Newer ones (for more mobile imagery) are twice as fast." According to Anil Uberoi of Sun Microcomputers Corp., as quoted in Cole (1993 : 32) " ... one second of high-quality 16-bit audio translates into 176.4 kilobytes (kB) while one second of moving image at 30 frames a second demands up to 27, 648 kB/s."

The CD technology has still not fully incorporated the capabilities of the real time video or interactive videodisk. These machines still do not play full frame moving video. But the problem with interactive videodisk is that the machine it is run on is very costly. The prices of the machines have not fallen in the past years and so it cannot be expected to be the format of the future. The only possibility of real time video being played on the computer is on the 486 machine with high megahertz. Machines with high megahertz capacity make it possible to transfer information faster and so the moving pictures become fast.

In the production of CD ROM the main cost and effort is towards the preparation of data. The actual data has to be put in digital form and the process of transferring data from analogue form to digital form takes quite a bit of time and effort. It often involves group work. Factal Compression technology is one of the best suited for data compression. Presently it costs around half a million dollars to compress data using this technology.

Once the data has reached this stage the preparation cost is not high. The 'Master charge' (the charge for creating glass plate something like master copy) is around

seven hundred and fifty pounds. But once this has been done each additional CD can be produced at the cost of one pound.

### 5.5.1(a) Some examples of CD-ROM

Amongst the interesting and useful programmes for critical text analysis can be *Changing Times* a CD-ROM made of 15,000 news items from 1785 to 1985 of *The Times*. This programme again has no real time video but mostly text and above 1,000 pictures. This can be played on a standard CD-ROM player. A Similar programme *The Daily Telegraph* has full year's edition of the *Daily* and *Sunday Telegraph,* and another CD has a year's issues of *The Guardian* .

One of the most promising of the multimedia programmes available is the Encyclopaedia Britannica International's *Compton's MultiMedia Encyclopaedia.* The CD "contains the full text of the 26 volume printed work, with 32,000 articles, 800 full-colour maps and 5000 charts, as well as 45 animated sequences, 60 minutes of sound, music and speech and a 65,000 word dictionary". It provides information on the world: geography, history, science, and even meanings of words. In the geography section a revolving globe has been put in the place of a menu. The user can click on any of the 1,000 locations and explore through the articles, maps, charts and graphs for better understanding. Any location on the globe can be zoomed in and out. There is also a five hundred years' history provided on the CD. Clicking on any particular option will provide summaries, reports and even speeches. Amongst the remarkable real time videos included in the CD is J.F. Kennedy's speech but the audio and video quality is quite poor. Information of interest can be marked (similar to a bookmark) for later reference. Texts and pictures can be downloaded from different locations to adapt material for special occasions and special needs and can be printed as well. The programme also keeps a record of the areas browsed.

Besides, the facility CD technology provides for adapting material for individualised teaching there are other softwares available for creating lessons or developing programmes for use by controlled groups or even large groups. In the next section we will discuss some such tools.

### 5.5.2 *Genesis* MULTIMEDIA AUTHORING PROGRAMME

*Genesis* was originally developed in 1990 for the *Archimedes* computers but since January 1993 has been available for the Windows operating systems from Microsoft. The structure of a Genesis application is of a note-book with a number of pages bound and numbered. It is an authoring system which allows one to create resources and databases without involving much technical knowledge. Like other multimedia programmes it allows incorporation of text, scanned photographs, recorded sound and even movies. Similarly computer graphics and material from video laser discs and CD audio can be made use of.

The accompanying hardware Oak Recorder (now version II) makes it easy to capture and embed sound in any programme created with *Genesis*. The microphone plugs into the parallel (printer) port of any Archimedes computer. With the SoundLab the recorded sound can then be edited and unwanted background noise or spaces between sounds be eliminated to cut on memory consumption. The pitch of the recorded voice can also be manipulated. Clippings from the recorded voice can be cut/copied and pasted anywhere.

There are different packages coming up for making available multimedia programmes with hand made drawings as well. *Oak Draw* is one of them. *Paintbrush* is another. As these packages can run on *Windows* pictures and drawings can be integrated in any *Windows* file. Oak Solutions promise to release new tools

and they hope the package to include features such as graph drawing, electronic design and technical drawing.

### 5.5.3 GUIDE

Guide was the first hypermedia programme developed to run on personal computer. Versions of Guide are also available for Macintosh, UNIX and IBM compatibles. It best performs on Windows 3.1. As Guide does not support long word processing so the texts have to be imported from other word processing files like Word or Works. Similarly graphics have to be created on other softwares like PaintBrush and placed in a Guide document. With the help of sound recorder and video recorder, video and audio texts can also be incorporated in a Guide document. It supports ASCII and RTF formats for text and TIFF, BMP and PCX for graphics. In a Guide document as many as thirty-two screens can be opened simultaneously on the screen for cross reference. Cross-referencing can be done through four types of buttons (1) expansion, (2) reference, (3) note and (4) command. These buttons are visible by the appearance of the text. An Expansion button has bold face type, reference button appears in italics, note buttons are underlined text, command buttons appear as arrow and provide access to information outside Guide like a videodisk player, or a word processor file. To use command buttons individual scripts will have to be written in LOGiiX. For simple functions the user does not have to learn any programming but for complex functions one has to learn LOGiiX. Feustle Jr. (1990) developed a programme for teaching a course on *Modernismo* (Italian) and concluded:

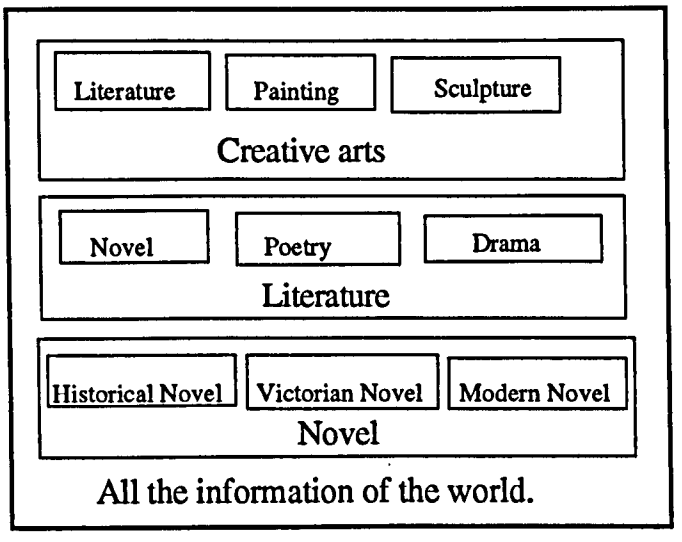
> Guide is an excellent program to start with while the doors and windows (not Microsoft) [are] still open (p 311).

### 5.5.4 HYPERCARD

HyperCard is very user-friendly. The most important quality of HyperCard is its programming (what is known as 'scripting' in HyperCard terminology) language - HyperTalk. HyperTalk which has a structure following natural English syntax. For example the instruction 'Now go to the next card' will be written 'go to next card' or "go next cd". Unlike traditional programming, scripting in HyperCard is much easier because HyperTalk is object oriented. Scripts are written to carry out local commands and functions. Faults can be easily detected. Object Oriented Programming (OOP) is writing separate instructions for every individual piece of information chunk existing as independent at the same time integrated to the main body of the programme. We can say objects are sub-sets of a set. In this context novel, poetry, drama are sub-sets and so objects of literature. At the same time 'Historical novel', 'Victorian novel' and 'Modern novel' would be objects. Independent programming is done for the behaviour of each object and also global programming for the behaviour of the programme itself. In a different situation where this programme becomes a part of a larger database it can become an object. Explaining OOP Adam (1993 : 23) said it is a:

> programming in which every element (text, graphics, and audio files say) is a co-equal object with the rest. Objects contain, besides data, a description of that from which each derives its own definitions of the other object - a definition that can be modified to suit the user's purpose.

If this argument is further and further extended the whole information of the world will become an object. The definition of an object will change according to context. Just as objects can be defined according to context they can also be defined according to their behaviour, quality, size and other features.




(Figure 5. 1 : Objects in Object Oriented Programming (OOP))

The concept of object can be made clear from the above rectangle which encompasses a number of rectangles in it. Each rectangle irrespective of the size in the above figure represents an object. In HyperTalk separate instruction or script is written to monitor the behaviour of each object. At the highest level a 'global programme' is written to monitor the behaviour of the whole programme. At the lower level programme is written to monitor the behaviour of each button or field. Goodman (1988 : 352) explaining HyperCard objects says:

> To HyperCard each of these items (the button, the field, the card, the background and the stack) is known as an object. HyperCard objects are the familiar "things" that you work with, either as a browser or author. You may not be able to physically touch a HyperCard object, but each object has a certain three-dimensionality to it that lets your mind grasp it.

In hypertext objects are known as nodes and these nodes are joined by links. These links help view/read related information placed on a separate object immediately without losing track of the main text or line of thought that is being followed. The main hurdle in OOP is identifying objects. Some piece of information may look like a related relevant information but when it is approached from a different place in a

particular context it may seem irrelevant. For example if a reader, for a quick definition of Formalism, when reading on Structuralism clicks on Formalism, s/he may be confronted with a big note which for this moment may be irrelevant.

New objects can be added and objects existing elsewhere in some other programme can be incorporated without altering or disturbing the existing program. Information can be added (or deleted) with ease by adding (or deleting) new nodes and links from the node to other nodes in the system. Compatibility is easy. Conjoined with this is the task of defining relationships between nodes. Ideally all information is related but it would not be physically possible to make all the relations and show them. Individual preferences have to prevail on this issue. Even otherwise the system has an inbuilt mechanism to point to the line in scripting with an error message.

HyperCard automatically saves changes so it is important to lock stacks or cards to which users are not allowed to make changes. Before the 2.1 version of HyperCard it could not display colour but now it is possible. HyperCard still does not have the option to alter the card size for individual convenience. The present size of the card is too small because it was designed to fit into the screen of the original Macintosh machines.

Having surveyed the technology available for developing Hypermedia programme it is now necessary to mention about the expected efficacy of this medium and the empirical situation of technology available in the Indian universities. In the next section we will present an argument based on facts in favour of adopting new technologies for teaching English in India.

## 5.6 SELECTION OF GEOGRAPHICAL AREA OF STUDY, TIME TAKEN AND THE UNIVERSITIES VISITED

### 5.6.1 CHOICE OF INDIA

India has one of the oldest traditions of university education with Nalanda and Taxila which were responsible for the spread of Buddhism the world over. Nalanda began around 5th century B C and flourished for eight hundred years. It is said that it had ten thousand students and teachers. The medium of instruction was Sanskrit. With the advent of Moghuls around 1000 AD came Persian and Arabic languages and Madarsa, the new form of institution. Sanskrit education continued side by side with the Persian. With the British came the English language and Western liberal education. In 1857 the first three universities of modern India were established in Bombay, Calcutta and Madras. The number has grown to two hundred now. These universities were set up on the model of the University of London and as such they were affiliating universities. According to the U.G.C. statistics at the time of independence there were 229,611 students studying in the 491 colleges; the number has gone up to 4,425,247 with the number of colleges going up to 7,120 in 1991. The task of teaching is fulfilled by 7,509 Professors; 43,790 Associate Professors; and 200,484 Assistant Professors (Singh : 1993).

University education was limited to undergraduate teaching until 1902 when the *University Commission* set up by Lord Curzon recommended higher education and research to be taken up in the universities. Along with these recommendations came also the permission to teach Bengali at the post graduate level. In the late thirties, when Congress party shared power with the British government, many states adopted Indian languages as the medium of instruction.

Even today most north Indian universities have English and Hindi as the languages of instruction and examination. In the universities which fall in areas where there is a sizeable Muslim population, Urdu is one of the languages used for university education. Hindi is replaced by one of the regional language in other parts of India. English is common to all areas. The Osmania university at Hyderabad had Urdu as the medium of instruction along with English. The same university adopted English as the medium of instruction after 1947 when the country became independent. Even today the university has only English as medium of instruction for professional courses and English, Hindi (2 Colleges), Urdu (2 colleges), Telugu and Marathi (1 college) as media of instruction for teaching all different courses and disciplines.

India is a linguists workshop as it has more than three hundred languages and dialects spoken by nearly eight hundred and fifty million people. Of these only sixteen are recognised as the national languages. English is not one of them. Sanskrit is one of these languages but it has perhaps few native speakers. English has the status of an 'associate official language', but Hindi is the official language of India.

English is spoken by less than three percent of the population but this small percentage accounts for more than twenty-five million speakers. Numerically there are more speakers of English in India than there are in Australia, New Zealand or Canada. This is the largest single country with the largest number of non-native speakers of English. Only the United States of America and the United Kingdom have more English speakers than India. Even in the publication sector India is the third largest nation. There are more than three thousand six hundred newspapers in English in India.

Even though India has a long educational tradition and it is reflected in the attitudes and aspirations of the masses the existing institutions and resources are over crowded and whatever facilities available are meagre and scarce. The problems in teaching of English are complex. Resources in terms of books and experts are not locally available and due to scarcity of hard currency it is not always easy to procure them. English is taken to be a language of the colonisers and also of the developed world.

Even though the developed world is taken with respect, the general attitude towards the U.S.A. and the West is one of suspicion and antagonism. As a corollary, a researcher coming from abroad is taken as challenging the system and to be something of an agent of the West. He is automatically put in a position of opposition. Even those respondents educated in West question the efficacy of research conducted in the West for India. Those who have been teaching British literature for decades start questioning the usefulness of it. This attitude has also led to more and more Indianisation of the syllabi. The situation is very well narrated by Spivak in one of her interviews. Gayatri Chakravorty Spivak, an authority on Deconstruction and an established critic in one of her interviews given after completion of her six month teaching assignment at the Jawaharlal Nehru University, observed the same. She said:

> I was confronted by the people who wanted me to prove that I was in fact not a sort of anti-Indian racist. Mind you, I was asked to teach all this stuff, ("Recent theories of Interpretation - by which was meant Foucault, Derrida, post modernism, and how related to historiography, but I had to prove at the same time that I was also authentic Indian, and a real Marxist (Spivak 1990 : 77).

This changing attitude of the academic is reflected in the policy of the U.G.C. The U.G.C. has made it compulsory for all universities to add one paper as

Indian English even though quite a few senior teachers still do not accept Indian writing in English as a good case for inclusion in the university syllabus. The inclusion of language and Linguistics as part of the syllabus is also contested by some. Most often the Indian English component has been added at the cost of 'English Social History'. This has happened because the students do not have enough classroom hours to be taught any new component added to the syllabus. English Social History' had to be removed to add other components. In such situation one hopes modern technology to do what is otherwise not possible

### 5.6.2 SELECTION OF TIME

The universities in India reopen after summer vacation for the new session in the month of July. The teachers are comparatively free during this time of the year as time-tables are in the process of getting prepared, students are opting in and out of courses and also selections for the 'Honours' classes are being finalised. As the universities reopen after a very long vacation the teachers are likely to be fresh and not too academically pressured. So it was decided to conduct the study trip during this period. The universities again close for 'Durga Puja'/'Dussehra' during October so the study had to finish before that.

### 5.6.3 IDENTIFYING UNIVERSITIES

The selection of universities was done on the consideration that in the first instance the outcome of this study might be implemented in the state of Rajasthan as the researcher is the main policy planner for the English courses for the Kota Open University which has its clientele spread throughout that state. An objective and in-depth understanding of the area might prove helpful in planning pragmatic courses and making feasible suggestions. It is also expected

that a detailed study of one state compared and contrasted with other representative universities from other states would help form an overall impression. Haryana, Rajasthan, Bihar and Orissa are generally considered the most backward states of India. The teaching of English as such has also lagged behind. Kurukshetra from Haryana, Ranchi from Bihar and Sambalpur and Bhuwaneswar from Orissa were taken as representative universities. The educational institutions in Delhi generally maintain high standards of English teaching and the better teachers aspire to get a place in the universities in Delhi. The Indira Gandhi National Open University (IGNOU)) which has the whole of the country as its territory is situated in Delhi and has the largest clientele from Delhi itself. The Universities in Delhi are better off in terms of funding and they can, if they have the expertise, procure necessary equipments for teaching. IGNOU has already got the latest machines available from Japan. One important factor which guided selection of universities was that the universities in consideration should not fall in the flood prone area as floods come during this time. In 1993 the monsoon arrived late, however, and only when the study was on did the monsoon come. The universities of North Bihar were deliberately kept out of plans. It might not be unimportant to mention that because of this reason the elections are not held during this period. In elections teachers are inveigled into the election process. The universities almost come to a standstill during elections.

In the study all the universities (except agricultural) were taken up from Rajasthan for the reasons mentioned in the Introduction chapter and earlier in this chapter. An extensive study of Delhi was also done. To compare and contrast the situation one representative university was taken from Haryana, Bihar and Orissa. From the map of India in Appendix 3 it will be apparent that the study has data from west to east in northern India. In the following section a

brief profile of universities selected for study will be presented.

### 5.6.3 (a) University of Rajasthan, Jaipur (Rajasthan)

The University of Rajasthan is situated in Jaipur the capital of the state of Rajasthan. The population of the town is about 1,500,000 but as the university commands a reputation for excellence and tradition students from all parts of the state come to study in this university.

Founded in 1947 it has university departments where only post-graduate teaching is done. The university has affiliated colleges where basically undergraduate teaching takes place but some colleges have been allowed to undertake post-graduate teaching in some subjects. The languages for instruction and examination are English and Hindi for Arts, Commerce, Education, Law, Nursing and Science for 1st degrees; English only for engineering, medicine, pharmacy and postgraduate courses in law and science.

The English department has been known for its excellence and the publication record of the department is considered important. It has been a pioneer centre for language studies and recently the department has taken a lead in women's studies under Professor Jasbir Jain.

### 5.6.3 (b) Jai Narayan Vyas University, Jodhpur (Rajasthan)

This was the second university to be established in the state of Rajasthan. It was founded in 1962 as the University of Jodhpur but the name was subsequently changed to Jai Narayan Vyas University. The jurisdiction of the university extends only within the town of Jodhpur which means the affiliated and

constituted colleges of the university are situated within the town of Jodhpur. The population of Jodhpur is 400,000. Incidentally one of the Educational Media Research Centres (EMRC) is situated in this university. EMRCs are responsible for making video programmes which are shown on the national television network known as the *Countrywide Classroom.* One of the teachers had dramatised one act of *The Waste Land* but perhaps surprisingly he did not think very favourably of media in terms of teaching.

The languages of instruction and examination are English and Hindi. The Dean of the Arts, Social Sciences, and Education professor of English Dr. J.N. Sharma and the Director of the Kamala Nehru College for Women Professor Kamini Dinesh, both professors of English, were interviewed besides others of the department of English. The Director of Kamala Nehru College has been arranging short term practical courses for women and 'Speaking English' is one of these. On the kind invitation of Professor J.N. Sharma a lecture demonstration on the hypermedia programme was given to the students and teachers of the PG departments of English and Hindi.

### 5.6.3(c) Mohan Lal Sukhadia University, Udaipur (Rajasthan)

This university was founded in 1962 as Rajasthan Agriculture University but in 1963 was turned into a regular university and in 1982 was renamed as the Mohan Lal Sukhadia University on the name of the first Chief Minister of Rajasthan. In 1987 the disciplines related to agriculture teaching were bifurcated and put under a new university named Rajendra Agriculture University with its headquarters at Bikaner. The M.L.Sukhadia University is a teaching and affiliating university.

The university has English and Hindi as the languages of instruction and examination. The English department of the university had a fairly big staff but because of the retirement of a number of teachers in recent years the number has dwindled. The load of teaching on individual teachers is quite high and they are obliged to teach texts from diverse areas. It is because of this reason that teachers are not able to specialise in any area.

### 5.6.3(d) Maharshi Dayanand Sarswati University, Ajmer (Rajasthan)

The university was established in 1987 bifurcating the University of Rajasthan. The residential wing remained with the University of Rajasthan but the 103 affiliated colleges were transferred to this new university. The university has been established with a view to promote only non-traditional courses on campus but the first departments it established were the departments of Botany, Economics, History, Mathematics, Political science and Zoology. Until 1993 no appointments were made in the department of English.

At the time the state of Rajasthan was been created Ajmer was the first choice for the capital. The town lost in the contest because of its geographical location and perpetual scarcity of water. So many important state government offices are situated in this town. The town has been host to a number of well known educational institutions. Meo college (though it only imparts education up to high school) and Sophia College for women are well known. The Government College at Ajmer is an autonomous institution and has more than six thousand students.

### 5.6.3(e) Kurukshetra University, Kurukshetra, (Haryana)

The Kurukshetra University was founded in the year 1956 and it started by teaching Sanskrit, Pali and Prakrit. In 1974 the university was turned into an affiliating university. From 1974 its jurisdiction extended over the whole of the state till another university was declared at Rohtak in 1977. For one year during April 1976 to April 1977 the name of the university was changed to Birendra Narayan Chakravarty University, but again the original name was restored. Since 1877 another university has been functioning at Rohtak but still Kurukshetra University is the major and more prestigious university of the state. The population of the town of Kurukshetra is only 50,000 but the university attracts students from all parts of the state and even other states. As the town is only 156 km from Delhi the university also pulls students from Delhi.

The university possesses a Super-32 mainframe computer with a capability of 128 terminals which operates under SINTRAM. The university offers a Masters in Computer Application and a Post Graduate Diploma in Computer Application. The university also has a language laboratory for teaching English. The medium of instruction for undergraduate classes is only Hindi but for most postgraduate courses it is both English and Hindi. The medium for writing examinations is also both English and Hindi.

### 5.6.3(f) Jamia Milia Islamia, New Delhi

Jamia was set up in the year 1920 by Sir Syed Ahmed to provide educational opportunity basically for the Muslim community. This was felt necessary because the university system was seen as a threat to the Madarsa. The foundation of this institution was part of the national freedom movement. The

institution could not earn the status of a university until 1963. In 1977 postgraduate teaching started and in 1988 the university was given the status of a Central University. The university has Urdu, Hindi and English as the languages of instruction and examination.

### 5.6.3(g) Jawaharlal Nehru University, New Delhi

Jawaharlal Nehru University was founded in 1969 to provide an ideology and expertise to the country which was not being provided by any other university. The university has been designated as an institution of higher learning and research and as such undergraduate studies are not part of the curriculum. Undergraduate teaching only in foreign languages like German, French, Spanish, Bhasa Indonesia etc. are offered. The medium of instruction and examination is only English except in relevant foreign language departments. The university provides and promotes interdisciplinary studies and is conscious of its national character. The admission to the university is through all India written competition held at different centres of the country.

The university has a VAX 11/780 with 4MB memory, 32 terminals and 2 Tektronix terminals; Microvax II with 9MB of memory. The university is on ERNET. The university also has a very efficient language laboratory for teaching foreign languages. Audio and video devices are used for teaching languages and Linguistics.

### 5.6.3(h) Ranchi University, Ranchi (Bihar)

Ranchi University was founded in 1960 to cater to the needs of the peoples of South Bihar. The university was established keeping in mind the tribal

population of the state. The university excelled other universities in the keeping of schedules. When all other universities were running late in holding their examinations this university was able to hold examinations and publish results. This was a great incentive for the good students to join this university and get the degree before fellow students in other universities. The St. Xavier's College at Ranchi, run by the Christian missionaries, built a reputation for discipline and performance but over the years the college has failed to perform very well because the seats for admission have been reserved for the 'Scheduled Castes' and the 'Scheduled Tribes'. Performance at the Honours level has not suffered so much but more than three teachers said most of the bright students now go away to Delhi.

**5.6.3(i) Utkal University, Bhuwaneswar (Orissa)**

Ever since Orissa was carved out of Bihar in the year 1936 demand for an university was made. Students from all over this state went either to Calcutta or Patna universities. The university was founded in the year 1943, and 1993 was the Golden Jubilee year of the university. This was perhaps the only state university under study which had English as the only language of instruction and examination.

The town of Bhuwaneswar has a population of 650,000 but the university pulls students from all parts of the state, as a degree from this university commands more weight than others. Technically the university, which is a teaching and affiliating university has its jurisdiction over the eastern districts of the state.

The university has a language laboratory for teaching foreign languages. The university also offers courses in computer science. The English department had

simple electronic equipment like televisions and cassette players available for teaching. The university is on ERNET.

### 5.6.3(j) Sambalpur University, Sambalpur (Orissa)

The university was founded in 1967 to cater to the needs of Western Orissa. There had been a long demand for a university in this part of the state. The first admissions were made in the year 1972. This is a teaching and affiliating university. The population of the town is 300,000.

The languages for instruction and examination are English at the masters level but for the undergraduate classes English and Oriya are both accepted.

The library has microfilm and reprographic services. The university has computer facilities for teaching, research and administration. It is difficult to say how much they are used. Computer links to outside networks are also said to be available.

## 5.7 SUMMARY AS JUSTIFICATION OF PLATFORM

It was also found that the Department of Electronics (DoE) in conjunction with the Indian Institutes of Technology (IIT) at Bombay, Delhi, Kanpur, Kharagpur and Madras and the Centre for Development in Telematics (C-DoT) has set up the ERNET the academic network in India and there are already more than two hundred organisations on the network and it should not be long before the students can use the network for academic purposes. The sites are connected through GOPHER and anyone from anywhere in the world can log in and read the contents.

Ideally, then, the database should be developed as it has been done at IRIS which anyone from anywhere in the country can log into and read but it is perhaps not possible at the moment. I say it is not possible because it has not been done anywhere for teaching purposes. But theoretically it is possible because users are already getting information from distant sites. The most frequently sought information are about recipes for cooking and finding jobs. Developing such a database would involve collaboration of a number of departments and involve large funds and also quite some time.

The second best choice would have been to produce a CD keeping the Indian students in mind but again developing databases for CD would have been a project involving time and finance of the scale which was not available for research of this sort.

From the information gathered it was appropriate that the universities had sufficient hardware available for teaching at least in the university departments. It is never easy to find out about the availability of software. Availability of software varies from place to place depending on the preferences of the faculty. It was not possible to find from here which university was using Macintosh and which IBM and also if the universities had HyperCard or Guide available to run the programme.

Before selecting HyperCard to be my platform I had rejected other platforms because of different reasons. I neither had the machine available to run and demonstrate a CD - ROM disk for my readers nor the time and resources available to prepare a CD - ROM. Another important consideration for choosing HyperCard was that Macintosh PowerBook 100 was made available to me by Dr. Richard Andrews (my supervisor for this research) for my study trip to India.

Hypertexts can have different forms: reader centred or text centred or in teaching environment teacher centred. All the three are demonstrated in this case. *Technocriticism* is reader centred, *Cat in the Rain* is author centred and *Test* is teacher centred. *Technocriticism* is reader centred because the reader can browse on his/her own and record her comments and points of view on the programme or even put new ideas. The reader does not have to go in a linear fashion instead s/he can browse through, only reading portions useful to individual needs. *Cat in the Rain* is author centred because the author has devised the format and the user has no control on it. The user can put one's comments in the space provided by the programmer. The comments would finally be screened by the editor and either retained or discarded. *Test* is teacher centred because the examinee has only very little say on the programme. The user can attempt the questions and know the result but cannot re-take the test. The user does not have access either to the question bank or to the score obtained by the examinee. Entry to the *Test* can be permitted only by entering a password if a password is given to the users.

In spite of all the efforts to explain the qualities of different types of multimedia programmes, I will reiterate Looms' (1990 : 128) statement that "There is no simple solution to the issue of experiencing multimedia first-hand rather than reading about it." In the next chapter I will explain the process of development of *Technocriticism.* It is advisable that you view *Technocriticism* before reading the next chapter or keep swapping between the next chapter and *Technocriticism* as and when desired.

# CHAPTER 6

## PUTTING IDEAS TO PRACTICE IN DEVELOPING *TECHNOCRITICISM* - A HYPERMEDIA LITERATURE TEACHING PROGRAMME

**CONTENTS**

## 6.1 INTRODUCTION

From the studies reported in chapters one to three it was clear what information needed to go in a hypermedia programme for teaching literature written in a foreign language. Discussions on the format of a hypermedia programme in chapter 4 has already provided the framework for building the hypermedia programme. From the survey of the available hypermedia technologies and the technology available for this research presented in the last chapter it was decided to develop a hypermedia programme on HyperCard.

The aims of this chapter are to demonstrate the structure and process of functioning of a HyperCard programme and how the ideas were put into *Technocriticism* - a hypermedia programme.

## 6.2 SELECTION OF THE NAME

The name *Technocriticism* has elements from two areas - technology and literary criticism. This name was selected because this method of critical analysis relies equally on two things: first the hardware and software technologies which help to present the ideas in the manner desired and second the schools of criticism which give creative ideas to understand any work of art. *Technocriticism* - to define it precisely - is the method of critical analysis which relies heavily on modern technology. (see the objective of *Technocriticism* in Appendix 2, Card 3). Jonassen and Grabinger term this quality as restructuring. They say that after a certain level the user is unable to:

> accommodate or interrelate all of the information. The learner begins to restructure his or her knowledge by adding schemas or developing new conceptualisations for existing ones. The results of restructuring are new

knowledge structures, which enable the learner to interpret or access their knowledge in new ways. The ideas are rearranged sufficiently to provide new meanings to ideas.

It is certainly not expected that this effort will give birth to a new school of criticism like Modernism or Post-Modernism but it is hoped it will promote the rearranging of all the ideas to provide new meanings, through a new method of thinking, somewhat different from the present practice in which too much reliance on one school of criticism breeds pedantism.

In the majority of existing methods of teaching most of the times students are either given one particular approach or no approach, but Technocriticism will prod students to evolve their own method of criticism through their own readings and understanding.

This method may not be found very suitable for very young learners of literature as a critical discipline who are not familiar with any school of criticism because they may get lost in the mountain of information pouring in about all different schools of criticism. This method may also take a bit of time for such learners of literature who have no previous exposure to the use of the computer. They, instead of learning anything of literature, initially might spend all their time learning how to manipulate a computer.

## 6.3. TARGET CLIENTELE OF *TECHNOCRITICISM*

*Technocriticism* is planned primarily for students of English literature studying it as a non-native literature but it may also be found useful by students whose native tongue is English but who are not well versed with the jargon of literature. This aims to become a learning tool for students studying on their own or with very little

tutorial support in the developing Anglophone countries. The target clientele is university and college students of English literature at the advanced level in 'developing' countries. The 'advanced level' is not quite advanced compared to the native language speakers and the word 'developing' connotes unavailability (or scarcity) of computers in education. Such users are also not exposed to flashy computer games so their expectation is not high. This simultaneously aims to become a learning tool for students who have minimal face-to-face interaction with teachers but who want to develop communication with fellow students and teachers and help develop interaction. The format would be helpful in developing students' understanding and also enrich the database through the responses and enquiries of the users.

From the very beginning the aim had been to prepare the programme for users with little previous computer experience. This has forced me to make the structure very simple. Where this hurdle does not exist as what Huntley (1991) mentioned "Students had to understand the HyperCard at a fairly sophisticated level and master special HyperCard devices in the Milton stack" it becomes much simpler to create the programme. It has always been high on the priority list that minimal computer skills be expected of the users and minimal programme specific instructions be given. These concerns make the programme general in nature and universal in use. The programme was not intended for commercial distribution so the saleability and the appearance (of the screen) were not very important issues. It was intended to make the programme easy to use and fun to go through. It was the intention to test it as an instrument which can make available to students as many viewpoints as possible and through this approach to understand the text more clearly. This approach will enable the common understanding of major issues and their implications to emerge.

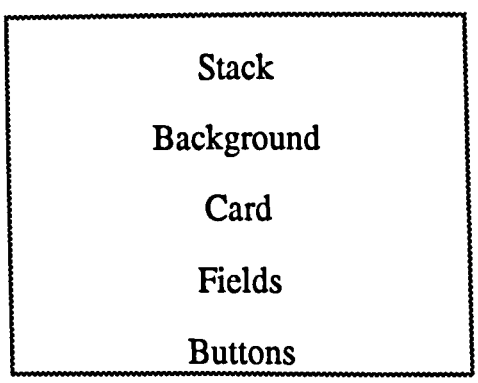
It was under these considerations that HyperCard was selected as the platform for developing my programme. HyperCard was found to be capable of supporting all different aspects that were considered important in teaching of literary texts. More explicit reasons for selecting HyperCard have been given in the Introduction Sections 0.7. and 5.7. and later in this chapter. I will in the next section describe how *Technocriticism* was developed on Apple Macintosh's HyperCard.

## 6.4 DESCRIBING THE SELECTED TOOL

Once the HyperCard is up and running a stack is created by choosing 'New Stack' from the 'File' menu. The first card of the stack appears on the screen. The HyperCard platform for information presentation is the 'Card'. Even though more than one field can be placed on a card and both can be independent nodes, but we can call a card a node as it is the minimum visible area at any time. There might be some invisible fields as well on a card but to activate them some icon will have to be visible on the card. Some icons may lead to an altogether new card. For example the button 'Technocriticism' on Card 1 (see p. 270) leads to Card 3 (see p. 270) but the button (invisible) created around Ramayana on Card 46 (see p. 285) pops up an invisible field which has some information on the epic. This is the function foot-notes/end-notes perform in any printed text. The added advantage of hypermedia referencing is that the user does not have to close the page where he is reading and open a new one. The reference can keep directing the user to new references like the one created on 'Cat in the Rain' button on Card 1 Appendix 3. Such buttons can also perform the function of illustrations. If the user clicks on the button (invisible) placed on 'Ernest Miller Hemingway' the picture of Hemingway along with some biographical details of the author appears. The picture of Hemingway could have been shown without any biographical note but Landow (1990 : 82) says:

> Images bare of text or images with only titles confuse readers, who cannot quickly and easily determine why links to such material have been included. Once confused, readers resent the presence of the link.

Because of this reason the first screen was time framed for four seconds and did not requisition any action from the user. This was also the reason why the creator's name (of Technocriticism) in Card 2 (see p. 270) was added so that the readers don't get confused by the new term. Similarly some verbal/auditory information can be placed to be played on the click of the button. The great difference between the print based pointers and computer based pointers is that computer based pointers are dynamic and give the feeling of physical proximity whereas print based pointers do not (Simpson 1989) . The basic structure of a HyperCard stack is :

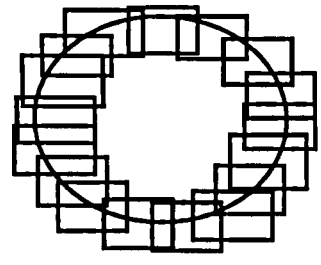



Background is a structural feature rather than a functional feature. The programme maker can decide on the broad appearance of the cards and put such features on the background. For example the fields and buttons created in the background will appear on all the new cards created in that stack unless 'new background' is created. Whatever changes are made to these background features will affect those features on all cards. This is why all cards on a particular genre have identical appearance. Local variations to the appearance of a card can be

made. For example fields and buttons created on a card will not be visible on other cards.

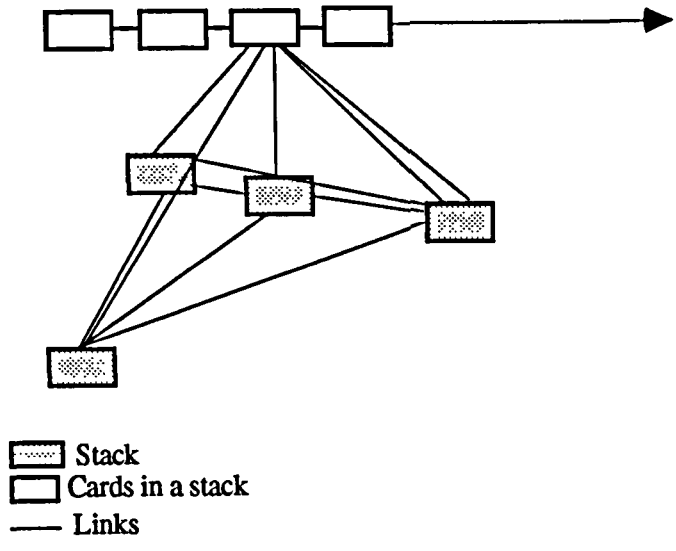
Most of the functions that are performed in a HyperCard stack are carried on through the buttons. Paths (or links) may be author-generated or system-generated (which are often in background) but if the author wants s/he can delete the system-generated paths. For example all background cards come with three buttons 'Next', 'Previous' and 'Back' but these have been deleted from most of the cards in *Technocriticism.* 'Fields' are the units that are used for presenting the information in the desired format. These can be manipulated in the fashion desired. Both buttons and fields sit on Card. Cards are independent entities but their behaviour is preempted by the activities of the buttons and fields. The buttons can be highlighted by making them bold or underlined. In *Technocriticism* most of the times comments and notes put under a button are not highlighted so that the inquisitive user can find more information whereas those readers who just want to go through the text can go on without finding stoppers in the form of underlined, italicised or highlighted texts. These sometimes pose hindrances in the reading and comprehension process. They also force the author's (in this case the researcher's) ways of seeing and reading.

The structure of *Technocriticism* is (as is of all HyperCard stacks) like a ring and if one likes on can keep going from one card to another without coming to an end. The structure of a stack can also be equated with that of a library catalogue. Each catalogue card has information which may be considered complete if one wants to know only about the publication details of the book but can also go further and search for the book and read the contents. A 'stack' can also be compared to a word processing file. Just as a file can have so many leaves or pages a stack can have so many cards. For the sake of convenience and providing a beginning point a certain card (the one which is created first) is



(Figure 6. 1 : An imaginary structure of a HyperCard Stack)

numbered one. All other cards are numbered consecutively. If one opens the 'Card Info' from the 'Tools' menu the 'Card number' and total number of cards is displayed. Every card is also given a unique 'Card ID' number. As the consecutive card number of cards of a stack may change, because of deletion of any card the ID number is assigned to give a permanent identification and this number can never be given to any other card on the same stack. This number is used to send messages from anywhere in the same or another stack to a card in the same or another stack. So the instruction for sending message from a card to a different card will be 'go to card id [say] 1234' but if the instruction is to be written to send the message to a different stack then the instruction will be prefixed with the instruction 'go to cd id [say] 1234 of stack [say] 'Cat in the Rain'. These instructions will be understood by the machine if the named stack is installed on the floppy disk or the hard disk. In case the machine is not able to find it will ask where the named stack is placed and the user will have to tell once but after that it will be able to find it on all other occasions. The concept can be pictorially presented as:




(Figure 6. 2 : Hypertext stack in a hypertext web)

Card will always be addressed to a card number. All other variables on a card will be known by this card number. So a typical instruction will be:

```
on mouseUp
  go to card id 3683 of stack cat in the rain
end mouseUp
```

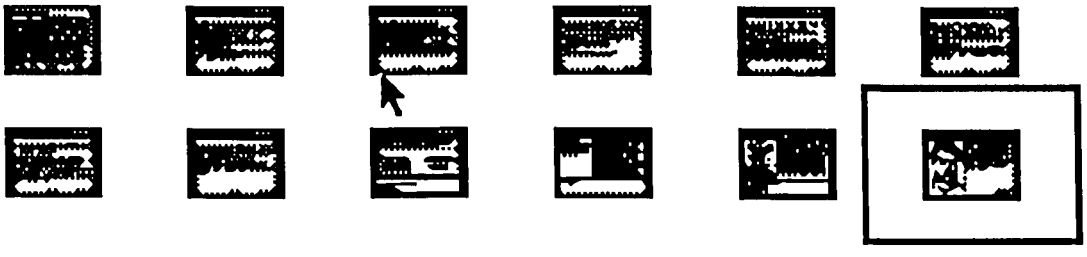
The structure of any hypermedia will have to be defined on the basis of its uses (if it is not intended to be a programme like *Xanadu*). Even a hypermedia programme on literature cannot include everything on literature. It will have to define an area and even then only a small fraction of information on that area can be accommodated. The structure of the hypermedia will have to be decided on the basis of the area of information and its uses (for the users). *Technocriticism* is intended to be a reference tool and not as a text to be read in one go and as such definitions, contextual supporting information on similar texts, culture, author, historical period and such aspects seem relevant with the facility to navigate from one area to another. For a non-sequential text it was best thought to have a central point where any user could return and then to go for a new search or return to if finding oneself lost. This function is performed

by Card 8 (Appendix 2) in *Technocriticism.* Use of browser (the graphical display of the web on the monitor) can save one from getting lost and give easy access. A broad browser has been provided. A detailed browser could have been provided but this would have occupied a large space on the screen and because of the permanent nature of the card size this was not attempted. The user has the option to go to the first card of that particular genre or area of study but from there s/he could either go in a linear fashion or jump to any point through the system search by choosing 'Find' from the 'Edit' menu. If any particular information is sought like when information on story form is sought by clicking the 'More on Story Form' button in 'Cat in the Rain' (see Appendix 3, Card 10) story stack, then the screen containing information on story form opens up.

Nearly all hypertext systems have some sort of an 'index' or 'contents' in the programme. This is a helpful means to access the desired piece of information. In the hypertext format some prefer to keep in the tree diagram form, some in alphabetical sequence and some in a wheel form as in *Technocriticism.* When the list is big as in the IRIS programmes the alphabetical list is preferred as searching can become difficult. In a small list like that in *Technocriticism* the wheel shape was preferred.

Similarly 'content' cards could be prepared for different genres but as the contents is not too big this has not been added. For all such cards where a user can go only to refer to a source (what in book reading readers do by putting in their finger to mark their current position) a 'pop-card' button has been pasted on the top level. If the user clicks the mouse once s/he will be back to the original card from where s/he went there. For example the user can go to the further reading list but if s/he clicked the mouse once the original screen will open.

Due to the non-availability of the video capture device in the University it was not possible to include a video. A few pictures were scanned and pasted on the cards in the stack 'Cat in the Rain'. The quality of pictures was considerably reduced because HyperCard does not support very high resolution. In the absence of a sound capture device a small script in the button 'Chandra Bhushan Sharma' was written so that the users were sure and convinced of the programme's capability of incorporating sound (see Appendix 1 card 1). Because of the non-linear nature of hypermedia, getting lost in hypermedia programmes is a common problem. HyperCard tackles this by giving the option to the user of going to the 'Go' button and then clicking at the 'Recent' button. This presents to the user pictures of the last thirty-two cards in small icons. The user can click on any one to arrive at the desired card.



(Figure 6.3 : Picture of 'Go Recent' Screen)

Some (e.g. Simpson 1989) hypertext users have suggested that to save the time of readers from reading the same information twice it is a good idea to leave a mark on the card already 'visited' (or read) by the user. This was not considered in this case because in a reference tool the reader may be allowed to read the same text (without the embarrassment of being told 'you are reading it twice') as many times as s/he needs to.

Some blank cards are added and also at the bottom of some other cards blank fields are added for the users to give their comments. From I.A. Richards' *Practical Criticism* to W. Empson, F.R. Leavis and Umberto Eco - all have emphasised the role of the reader in the interpretation of the text. Richards'

experiment with practical criticism was based on the "reaction of the students to the poem. He organised his lectures around these and based his book on his analysis of them" (Fusella 1993 : 80). This is particularly important because computer-based criticism/learning is often castigated as monotonous and as a single channel transfer medium bereft of scope for discussion and dialogue. It is expected response-demanding fields will develop a habit of thinking amongst students and the teachers can 'correct' or help the thinking in the right direction which is one of the primary roles of the teacher. The computer 'conversation' - what is known as 'computer conferencing' - provides equal opportunity without letting in the favour of the teacher or the domineering nature of a particular student come in. Cooper and Selfe (1990 : 852) say:

> Classroom discussions are traditional academic forums that are predominantly shaped by the value our society places on strong authority and competitiveness. Classrooms centre on the teacher, who maintains control of the topic, the direction, and the pace of the discussion. Students who have the willingness and ability to co-operate with the teacher's goals in these discussions are privileged. Hence, students who are willing to demonstrate their knowledge publicly and students who are more articulate about their knowledge are rewarded by the smiles and nods of other students and of the teacher. Students who are willing to compete for attention, by speaking frequently, offering answers, and arguing for their views, are also rewarded. In addition, because the forum of the class discussion is based on face-to-face encounters, visual and aural cues - cues of dialect, clothing, skin colour, gender, age - enable the social hierarchies of our culture to apply, again privileging some students over others.

Such computer conferencing also provides an opportunity to the students to acquire the role of manager and fight to defend their own views. Cooper and Selfe (op cit. : 857) further say:

> Once students become used to setting their own agenda for the conference - determining the topics, the tone, and the direction of the discussion - they resist any suggestions the teacher made in class designed to influence the nature of the conference. The students have assumed power within this alternate forum, and they did not welcome the intrusion of the power structure of the classroom into the computer conference. This was their place and they knew best about what to do in it.

It might seem from Cooper and Selfe's experiments that the students might become parochial and deaf towards others' and new ideas. If this happened this would not have been a healthy sign but again Cooper and Selfe (op cit. : 857) say:

> Students become much more likely to question their own opinions as well as the information featured in the course and to learn how knowledge develops when different opinions and ideas come into contact.

Such an interactive medium can work and grow into an 'ideal' programme if every one in the group (see section 6.3) is given access and right to participate in the debate. Even though we have encouraging messages from the technologists (see section 7.5), I would hope to begin with, literature students in a particular university, then a group of universities and finally students nation-wide can have access to the database.

It is apparent from Cooper and Selfe's experiment that unlike classrooms, computers can provide that opportunity. Computer conferencing can work only while the dialogue or discussion continues but when the dialogue reaches a stage where final selection for adding to the database is to be made it will have to be the teacher editor/co-ordinator who will have to do the selection. I suggest this because Huntley (1991) has already experimented with surrendering this role to

students, but at the end realised "editorial control over what was submitted and what ultimately entered the stack wasn't tight enough" (p 81).

## 6.5 TESTING *TECHNOCRITICISM* ON PRESCRIBED STANDARDS

Different people have proposed different standards for the authors of hypermedia programmes. Landow's (1990) seem to be the most exhaustive so I decided to first test *Technocriticism* on the questions suggested by Landow. He has proposed the following seventeen 'rules' for the authors of hypermedia:

*Rule 1: The very existence of links in hypermedia conditions the reader to expect purposeful, important relationships between linked materials.*

It is agreed that links can pre-determine the readers to see the links as a purposeful, sacrosanct approach to a programme. This to our understanding can decelerate the reader's cognitive process so in *Technocriticism* as far as possible they (link buttons) have been left invisible because they are likely to force the users down the path set by the author.

*Rule 2: The emphasis upon linking materials in hypermedia stimulates and encourages habits of relational thinking in the readers.*

Promoting relational thinking seems to be the essence of the hypermedia approach. It is important to interpret a text in relation to not only one but different schools of criticism and also different media and means of communication. It has already been proposed that relationships between different means of communication (viz. painting, music, literature ...) need to be examined to make truly relational multimedia programmes. The Sumerian

invention of mosaic form (5,000 years ago) of creating design by arranging coloured glasses; a montage of creating design through cutting and pasting pictures and film shots from different sources and the more recent (since '20s) collage form initially started as a pictorial technique but developed into combination of photographs, news cuttings combined with painted images (*The Oxford Companion to Art* 1970, '84).

*Rule 3: Since Hypermedia systems predispose users to expect such significant relationships among documents, those documents that disappoint these expectations appear particularly incoherent and nonsignificant.*

This rule has significance but quite vaguely. Significance of an information/programme or significance of links and visuals can all be subjective issues. To reduce the subjective elements it has been said that creation of hypermedia should be a group endeavour involving experts from different disciplines.

*Rule 4: The author of hypermedia materials must provide devices that stimulate the reader to think and explore.*

All possible devices have been adopted in the limited circumstances to make the programme stimulating and absorbing. But there must be much more scope for improvement.

*Rule 5: The author of hypermedia must employ stylistic devices that permit readers to navigate materials easily and enjoyably.*

Some devices have been adopted but it has already been mentioned that because of paucity of facilities and limited function of the programme more eye-catching symbols could not be included. To incorporate symbols not included in the package programming in 'C' would have to be done but in the time frame this was not possible.

*Rule 6: Devices of orientation permit readers (a) to determine their present location, (b) to have some idea of that location's relation to other materials, (c) to explore materials not directly linked to those in which they presently find themselves.*

This has perhaps been well taken care of through the web on the cards in *Technocriticism* and other buttons in 'The Cat in the Rain' stack. Also because the programme is not very big the problem of getting lost should not crop up.

*Rule 7: Authors should consider employing several overviews to organise the same body of material and to assist readers to gain easy access to it.*

What Landow calls 'overviews' has been provided in the form of a web in *Technocriticism.* To avoid getting lost and facilitate easy access this web has been provided on all cards. It has been kept in mind in creating the programme that repetition of information and easy availability of navigational nodes is always helpful in hypermedia programmes.

*Rule 8: Never place link markers independent of accompanying text or image.*

Floating links (i.e. links without any visible name or graphics) can confuse the users so they have always been assigned a visible name so that the user has some idea before clicking on it about what s/he should expect from it.

*Rule 9: When creating a link marker that indicates the presence of a link, remember that all links are bi-directional.*

HyperCard links are uni-directional and as such returning to the place from where the user arrived at a particular place can be difficult. As far as possible the 'pop up' buttons facility has been used to return from references.

*Rule 10: Avoid linking to words or phrases that only provide appropriate points of arrival but give the reader no suggestion of where the link might lead on departure.*

As 'pop up' buttons help return to the point from where the user arrived this problem is largely avoided. For example in *Technocriticism* card 50 can be arrived at from card 33 buttons 'Wordsworth' and 'Lyrical Ballads' and also card 47 buttons 'Wordsworth' or 'The Prelude' but on clicking once on the card the user will return to the card from where s/he arrived. In those instances where pop-up buttons could not be pasted web buttons will have to be used to navigate.

*Rule 11: Place the link marker in close proximity to a text that indicates the probable nature of the link destination.*

To avoid this confusion and also the one mentioned in Rule 4 links have always been made through a genre or a theme and the buttons have been placed on texts which act as their names so this is taken care of in *Technocriticism*

*Rule 12: When creating documents, assist readers by phrasing statements or posing questions that provide obvious occasions for following links.*
*Rule 13: When possible provide specific information about a link destination by directly drawing attention to it.*

Didactic language has been used whenever necessary and at times users have been urged to follow some possible links. Names of buttons are quite suggestive like 'Now go to Prose', 'Further Reading' etc. which clearly indicate what the user should expect on arriving there.

*Rule 14: Linked graphic materials must appear with appended texts that enable the user to establish a relation between a point of departure and that of arrival.*

Invariably graphical material is accompanied by some text. It was suggested (although without much empirical evidence) that a combination of media has greater impact than a single medium. It was also kept in mind that a graphic without any textual explanation may confuse some users.

*Rule 15: The entire text accompanying visual material and not just the opening sentence or two serves as an introduction. And*
*Rule 16: The text accompanying an image does not have to specify all relevant information the author wishes the reader to have; rather, emphasising that a relationship exists at all may be enough. From which follows:*
*Rule 17: Texts serve not only to provide information but also to reassure the reader that the link embodies a significant relationship and to provide some hint, however, incomplete, of how that relationship can be formulated by the reader.*

Initially it was intended to have scrolling fields but later it was decided to have a fixed field because on arriving on a card the user may find the information open on the screen irrelevant and out of context. The 'first sight' should succeed in instantly making some sense to the user. Wherever information exceeds the space available on the card, the rest of the information is put on the next card with the suggestion 'More' on the card for the readers to follow.

Having confirmed that *Technocriticism* had all the qualities experts have prescribed for any good hypermedia programme to possess it was now thought that the programme was ready for the users. We will now discuss the inbuilt questions included into the programme.

## 6.6 THE INBUILT QUESTIONNAIRE

### 6.6(a) Questions asked before viewing *Technocriticism*

The programme has eight inbuilt questions. The first six questions are asked before a user gets access to the contents and the remaining two questions are put to the user before s/he quits. The first question is "What is your name?" This question was a neutral question from which no conclusions were expected to be drawn. This question could have been avoided but it was thought that respondents would be attentive and serious in browsing the programme because they would have a feeling of going on record or being watched. The functions of this card are managed by the following script:

```
on openCard
put number of lines in cd fld id 1 of cd id 20181 into LnNo
add 1 to LnNo
hide cd fld "Sex"
hide btn "Male"
hide btn "Female"
hide cd fld "age"
```

```
hide btn "below 20"
hide btn "20 - 40"
hide btn "above 40"
hide cd fld "profession"
hide btn "teacher"
hide btn "other"
hide cd fld "using computer"
hide btn "frequently"
hide btn "Sometimes"
hide btn "never"
hide btn "technical"
hide btn "conventional"
hide btn "distance education"
ask "Your Name Please"
if it is empty then doMenu quit hyperCard
put it into line LnNo of cd fld id 1 of cd id 20181
show cd fld "Sex"
show  btn "Male"
show btn "Female"
end openCard
```

The second question asks for the age of the user. Age was asked to find if the age of a teacher/student influenced his/her attitude towards new technologies. As so many people don't like to disclose their actual age and also actual age could not reveal much, 'age' was divided into three age groups; up to twenty years, twenty to thirty-five years, and above thirty-five years. This question was devised to make the attitudinal study. It was hoped that the attitude of the people of the three age groups would vary towards the use of new technologies. The under twenty category was retained, keeping in mind the student respondents, but as it was decided later on not to involve student respondents this option became redundant. I met no teacher who was below twenty years of age. The whole group of respondents was divided into two groups (see Appendix 6 for details).

The third question asks the sex of the respondent. This question has special relevance in the Indian context. Most working women are in the first generation of working women. Those women who have succeeded in taking up jobs are

trend setters and pioneers. My expectation was that female teachers would respond more favourably to new ideas.

The fourth question was again devised to divide the total respondents into teachers, students and others. It was planned that if the respondent was a teacher or a student the next question would be the type of institution the respondent attended. If the response was 'other' it would skip the next question on the type of institution and ask the frequency of the use of computer.

The 'other' category was included because in the course of study I expected to meet many people who would be interested in the programme and that it would be difficult to avoid them. But their responses would not have been relevant in this context. It was planned that all responses with profession as 'other' would be deleted.

The next question asked the stream of education system that the respondent was part of. The three streams mentioned were 'Distance' 'Conventional' and 'Technical'. The 'Distance' (including open) teaching institutions are different from the conventional because they incorporate different media and method to communicate with the learners. Before the teaching material of IGNOU came to the market nearly all distance teaching institutions relied almost totally on printed correspondence material and contact classes but ever since the IGNOU started its courses institutions even those outside the open universities have been incorporating new technologies and reshaping the educational material on the multimedia format.

It was thought [the exposure and so familiarity with new technologies of the student and teacher] that respondents with frequent use of technology would

respond more positively than those in the conventional system where nearly no modern technology is used. This question aspired to confirm whether what the technologists have said - familiarity and training in a particular medium/technology is necessary for pedagogic returns - was true or false.

Technical education was kept as a separate head because besides their focus on teaching English for special purposes technical institutions are slightly better equipped. Quite often technical institutions possess modern electronic devices and language laboratories which other institutions do not normally possess. All universities have at least one engineering and one medical college and they normally have departments of English. These departments teach English for specific purposes.

The last question before starting on the programme was 'on the previous experience and exposure to the use of computers'. This question was general and not specifically concerned with the use of computer for pedagogic purposes so that all types of uses were considered in responding to this question. Two types of responses were expected. First one could be that those who used computers frequently do not feel much inclined to see a new programme and those who have never used computer before would be very interested in it. The second could be that those who used computer before would be interested in knowing and learning how a multimedia programme worked and would spend more time with the programme as against those who have never used a computer before and would feel hesitant and would quit it sooner.

### 6.6.(b) Questions asked after viewing *Technocriticism*

Once the user has finished reading *Technocriticism* and decides to quit the programme the programme demands the user to answer some more questions. But before the questions are put the user is thanked for the valuable time s/he spent with the programme (see Appendix 2, card 6). The first question that is put to the user is about the interactivity of the programme. As it was said in the previous chapter interactivity is one of the most important factors in hypermedia programmes. The respondent is asked "Did you find the programme interactive?" to which s/he could respond either saying 'Very', 'Moderate' or 'Low'. Once this question is answered the next question asked is 'Would you like to read more texts on hypertext?" The choice of answer could be 'Yes' or 'No'. This question was in fact devised to substantiate the previous question. If the respondent said 'Very' to the last question and 'No' to this question then it would mean that the respondent has appreciated the programme either in humility or in ignorance. But if the respondent was consistent in appreciation or criticism then that would be taken as a positive response. This question finally leads to asking the respondent once again to reconsider the decision to quit by asking the question "Do you really want to quit?" with the options 'O! Yes' and 'Not now'. Clicking on yes helps the user come out of the programme and the exit time of the user is recorded.

It is also expected that users will also add comments on the general features of *Technocriticism* and the missing features of *Technocriticism* in the fields added in the stacks from place to place. Such fields have been accommodated wherever possible because the success of such programme will depend on the active participation of the users.

Before embarking on the actual field study to test the programme on the target users it was thought necessary to get the responses of experts in the areas of English language and literature teaching and also in the field of hypermedia. Even though the responses of the experts in UK were not expected to match the responses of the target clientele because of the differences in needs and expectations, this was still done to get whatever remedial suggestions possible. With this in view I first tested my programme on four experts from different areas. In the next section I will summarise the views of my respondents of the pilot survey.

## 6.7 THE PILOT SURVEY

My first respondent was Richard Andrews (RA) of the School of Education. RA saw the programme twice first time in the preliminary stage of development. At this stage neither the story nor the *Test* stacks were added. RA was convinced by the different approaches that were taken to explain the text but he argued in favour of including a text through which the efficacy of such a programme and approach could be demonstrated. It was on his suggestion that Hemingway's story 'Cat in the Rain' was taken up. He saw it again when it was joined by the two accompanying stacks.

RA's observation was that to test the efficacy and usefulness of such a programme the same lesson should be taught in the classroom through the traditional method. This was a very important suggestion but there were other implications of this approach. The person chosen to deliver a lecture on this story may or may not be a very good classroom teacher or may not be able to give a very satisfactory lecture on that particular day. So the subjective considerations come in. With the machine such subjective issues do not come in. The other factor which did not permit me to take up this dimension was time constraint.

Other suggestions given by RA were to keep meticulous record of time, place of interview and other details of the field study. It was decide to interview five students and five teachers from ten universities but RA also suggested that instead of taking a large number of respondents the study should concentrate on five teachers from each of ten universities and the senior most person from the department could be interviewed and the interview be recorded.

Between the first and the second version of *Technocriticism* that RA viewed the questionnaire was added. As soon as the respondent opened the programme the entry time was recorded. It was detected only when the programme was opened and quit a couple of times and navigated, that as one went from *Technocriticism* to *Cat in the Rain* and back, the entry time was once again entered. So during the course of one viewer the programme recorded entry time as many times as the user navigated to other stacks. This bug was removed by adding a new card at the beginning of the programme. Now when the user enters the programme the first screen opens and waits for four seconds and the entry time is recorded. No user can go to the first screen twice during the course of viewing unless the programme is quit and opened again.

My second respondent was Dr G.E. Buscher (GB), Director of the Language Teaching Centre, University of Hull. GB was appreciative of the programme but she felt it was geared for literature teaching. It could also provide important stimulus for language learners if adopted for such a purpose. She was particularly happy about the on-line availability of English translation of Italian expressions in the story. Even though GB had promised only thirty minutes to look at the programme she spent ninety minutes.

My third respondent was Professor John Thieme (JT). JT is Professor of New Literatures in English in the University of Hull. It was a long interview with JT but only parts of his interview are been transcribed and answers to his queries attempted here. Answers are not exactly as they were given during the time of demonstration.

JT: "The main point I was making is that while one is looking for open endedness of approach presumably the programmer of the package must be operating within certain constraints. The virtue of the package is that more than one person could be involved. I suppose the gradual evolution could involve a number of people.

CBS: Yes, it will not only involve a number of people but also provide a platform to all the members to interact and think via this platform. It is because of this that Conklin describes hypertext as "a computer based medium for thinking and communication". One is that the readers evolve their own ideas comparing and contrasting with others and also with one's own. Conklin further says "The thinking process does not build new ideas one at a time, starting with nothing and turning out each idea as a finished pearl. Thinking seems rather to proceed on several fronts at once, developing and rejecting ideas at different levels and on different points in parallel, each idea depending on and contributing to the others".

JT: I was slightly puzzled by seeing prose poetry and drama - three of the traditional literary genres used in relation to the story but presumably there can be other texts there and then you might have material here which would be more relevant. If you are talking about 'Cat in the Rain' how is drama going to be relevant?

CBS:*Technocriticism* is like an umbrella construction so we have all the information that teachers of literature normally refer to in teaching a text. This will particularly be helpful in a comparative literature teaching context. The expectation is that the users would like to see the developments taking place in other genres at a particular period.

JT: In looking at the text in this way with the underlined passages are you not doing something very similar in this medium to what the book does in using footnotes whether at the end of the book or at the bottom of the page?

CBS: Hypertext, Conklin (1987 : 33) says "allows annotations on a text to be saved separately from the reference, yet still be tightly bound to the referent". This helps the reader to choose whether he would like to read the author's text or read the text each previous reader has created. In a printed text the reader has the views available only of the author of the annotated text but in a hypertext views of all previous readers can be made available with the added advantage of viewing them only when wanted; in a printed text they are always there interfering with the reading of the text. Also, in a hypertext the process of reading can go both ways from the main text to the references or from the references to the main text. This will be helpful if a reader is interested in finding out where and in what context a particular reference has been mentioned. It is not easy in a traditional text but very easy in a hypertext because hypertexts are normally bidirectionally referenced.

JT: Supposing an individual reader comes along and has a comment to offer in the work. Can that reader then add something to the programme?

CBS: Yes. At certain points in the programme a few screens have been provided where the readers can write/type their own comments as in the stack 'Cat in the Rain' at the end of the programme (see Appendix 2) where certain comments on the story have been given by the author (of *Technocriticism*) a space has been provided for the users to give their comments. So it becomes a platform for discussion and dialogue. The last reader will have access to all the comments given by the author and also all the previous users.

JT: How can a reader, say the 15th reader, how can he actually pick or choose among the earlier material and the earlier users? Is there a way?

CBS: This facility is inbuilt in HyperCard. You have to go to 'Go' menu and click on 'Find ...'. This will then open up a dialogue box where you can type the words or name of the person whose comments you want to read. Then press 'Return'. This will make visible the first comment given by the reader. Once you have read the first comment given by that particular user you press 'Return'. It will give you the second occurrence of that name or word. This way you can browse through the whole programme and find all instances of this name.

JT: The problem for me at this point is that what you have really done is to isolate a number of themes that are obviously central in literature or really subjects rather than themes. And these represent sort of specific and limited choices. If one could mention, if one talks about the English novel in the 19th century probably this will be true in Hemingway. 'Death' for example will be a major subject but this is not in your list.

CBS: Death is not a theme or subject because in this programme I have chosen only positive terms. The assumption is that binary oppositions are natural part of

these terms. So you will find 'life' as a topic and references to life and death both would be found here.

It was not thought proper to construct the hypertext around specific themes because there is no limit to themes in literature. Literary themes have temporal life. If a hypertext is constructed around themes then perhaps after a certain time these themes would lose relevance and also there would be large number of themes with only a few examples in literature. But genres are relatively fixed and limited. There might be divisions according to type and period and that would still be manageable. Jefferson (1982 : 20) had aired a similar view when he said "There are no inherently poetic themes: the poetic subjects of Romantic poetry (moonlight, lakes, nightingales, roses, castles, etc.) having given way in the modern era to the most prosaic and mundane of items. Similarly, poetry cannot be defined just in terms of its devices because these change over time. Poetry can be delineated as a specific area of analysis only by a comparison with what is not poetry". It was because of this idea that the programme is built around genre but themes have been included only on the secondary level.

JT: My problem will be to have the same categories for all texts and I will see it being more useful if one worked on a particular text and then came along and adapted four categories of material relevant to that [text]. Instead of seeing language in general see Hemingway's language; instead of seeing biography in general see Hemingway's biography.

CBS: Because I want to develop a universal database which will at some point provide a reference tool to all texts from all genres I am adopting this format. This will be, to my understanding, the proper use of hypertext and demonstrate intertextuality of texts.

JT: My problem at the moment is that specificity of the information in regard to a text that I might want to use isn't, I think, there and perhaps you feel that can only come with time but it would still leave you with the problem and how does one make this leap.

CBS: I know this question cannot be answered at the moment because all the information needed to explain this text isn't there but I hope with time it will be able to provide answers to all queries related to all texts.

JT: I think that it is strongly to be encouraged because first of all it will give people a diversity of viewpoint but it will also involve them in the reader-response way which finally makes the teacher/editor take responsibility for the learner.

My fourth respondent was Barry Prescott, an expert and creator of hypermedia systems. Barry has mainly worked on 'SmallTalk' and had little exposure to HyperCard. His observations were mainly focused toward the structure of the programme. His first comment was that all buttons should have 'go back' button so that the user could go forward or return on the same path to clear confusions.

Barry's second observation was that the screen was too small and it was pretty difficult to read from the screen. It has already been mentioned that HyperCard's screen has a fixed size and it can not be manipulated.

Barry's third observation was that there should be two screens side by side containing the same text so that the same or similar idea dealt with at two different

points in the same text can be compared and contrasted with the help of the copy whenever needed. Further expanding the idea he said this could also be helpful in teaching themes dealt with in different texts. For example if the imagery of death is being taught and there are three or four texts with the description of death and all the four texts can be opened on the same screen it would give a better chance to the students to compare texts. It was a brilliant idea. The constraint with HyperCard however is that it can have a number of fields in the form of screens open on the monitor but all of them have to be opened on the given screen size. The size would go on decreasing and the space allocation to each screen and visibility reduce.

Barry also felt the screens moved quite slowly and the intermediate periods between change of screens were quite boring. But the most important aspect that Barry raised was that the readers should be able to get answers to their critical enquiries as and when they have one during the process of reading. It has already been pointed out that the only aspect that the machine lags behind is the creative thinking process and perhaps because Barry is himself a programmer he can expect the machine to do that but for the researcher this is an impossibility at the moment.

Before Barry was invited to look at the programme the script for collecting personal information from the respondents was written and it worked quite well. After Barry had quit the information collected read:

Entry time 4:12 am*
Barry Prescott
Sex: Male,
Age: 20 - 40,
Profession: Other,
Computer Use: Frequently,
Interactivity: Very,
MoreHypertext: Yes,
Exit Time: 5:20 am.

* The entry and exit time may look awkward for an interview but there is a time difference of five and half hours between UK and Indian time. As the data was to be collected in India the clock on the computer was set to Indian time.

Barry was at the end quite impressed with the possibility of including music and pictures. As the final comment he wrote:

Barry: Very nice, Bhushan!

## 6.8 SUMMARY

Any hypermedia programme is capable of incorporating a large amount of information and the success or defeat of a hypermedia programme should be seen only in the light of the relevant information which is included in it and the amount of the total information being used by the users. A hypermedia programme created to be accommodated on a disk can have only limited functions. It cannot be expected to perform as well as a CD and provide as many questions as a CD or a hard disk based hypermedia programme can provide. The most important function that hypermedia can be expected to perform is of enhancing the cognitive power through the combination of different media but as the hardware technology is not so developed (or is not easily available) to do that the best performance cannot be expected at this moment. The disk based hypermedia is further handicapped in the sense that it cannot accommodate reasonable video for measuring pedagogic differences because of the memory limitation.

This programme is relevant to the extent that it will provide an opportunity if the teachers of literature in a developing country like India can find it suitable and acceptable to be used for teaching foreign literature. Any positive responses will be taken to be promising because the ultimate form of multimedia (or hypermedia) will be much bigger and more attractive.

Even though the test stack in this case plays only a minor and insignificant role, it can have a very important role to play in an actual teaching situation. Problem solving can be a useful method of teaching and if each incorrectly answered question can be designed to open automatically before the learner the right answer, or even suggest one probable path for finding the answer which it can very easily handle, it can be usefully integrated into a teaching situation.

The ideas expressed and the method adopted to develop *Technocriticism* were based largely on the subjective understanding of the researcher. There was no scope for a proper pilot study on an actual sample so objections or criticism of the actual users could not be foreseen. In the next chapter I will present the views of my respondents but it might be a good idea to read the instructions sheet (enclosed as Appendix 1) given to the users of *Technocriticism* and also browse through *Technocriticism* enclosed with the thesis.

# CHAPTER 7

## THE EMPIRICAL STUDY

CONTENTS

## 7.1 INTRODUCTION

The aim of this chapter is to present the findings of the study conducted in India. The findings are in the form of analysis of data collected through the inbuilt questions in the programme and also through interviews conducted with the respondents. A critical analysis of the experiences from the field study has also been presented.

The study was undertaken between the 24th of August and the 6th of October 1993. As the study was conducted in the very advanced to the very remote universities the attitude of the teachers and the actual situation varied. In the next section I will explain what I saw at different places.

The study consisted of an efficacy and acceptability test of the instrument of hypermedia in the form of *Technocriticism* for teaching non-native literature. In this case examples of British and American literature were used. The principal text was *Cat in the Rain* by Ernest Hemingway and the other examples, to explain terms and concepts, were taken from British literature. Different schools of criticism as shown in chapter 1 were also discussed with the respondents to find out how much of teaching is based on the theories of criticism and literary appreciation. A central question was whether this instrument will be helpful in taking a wider perspective than a human teacher can provide and whether this method of literary application can lead to new and 'original' ways of text analysis and appreciation. The main purpose of hypermedia programme is to let the user learn by exploring. But if the programme is not able to answer most of the enquiries the user won't be satisfied. The question of tiring students does not arise because unlike the classroom the user is at liberty to quit the programme any

time s/he likes.

As it has been generally emphasised in the previous chapters the meaning of a text depends, to begin with, on the understanding of the *word*, what we can define as the minimal meaningful unit of literature. Above this level is the level of idioms and phrases, and then the levels of sentence and discourse. A secondary question was to find out if the teachers of British and American literature in India felt it was important to pay special attention to the teaching of the meaning of words, idioms and phrases used by the natives. This may prove helpful in teaching the contextual meaning of words and phrases as used by the author which may not be clear to an Indian reader.

The study was also indirectly focused on the attitudes of the teachers of literature in English towards the use of media and technology in teaching. On looking at *Technocriticism* Mukherjee* said "I suppose in your teaching career you will see this actually happening. I don't think so hopeful about my teaching career because I tell my students that I'll prefer term papers typed but they can't manage. It may be as you say the scene is very fast changing ... twenty years ago Xeroxing was not common". This statement perhaps summarises the views of most senior teachers.

Ideally many more additions should have been made to demonstrate all the qualities suggested for making a hypermedia programme but because of the lack of facilities this was not possible. Amongst the most important aspects that could not be incorporated were real time video and context relevant audio. Even before taking up the study in India I was aware that I was not going to meet many teachers who would be familiar with this technology and I was also conscious of

* See Appendix 6 for complete names of all respondents and other information about them.

the caveat that Landow and Kahn (1992) mentioned that "Evaluation of hypertext often measures the performance of subjects who have never previously used the technology. This approach suffers from two major problems. First, insufficient account is taken of the learning curve involved when encountering any new technology. Second, by implicitly comparing novices' performance with hypertext to that with printed matter, such studies 'naturalise' book technology as an unexamined baseline" (p 155). But as computers have recently been introduced in India in the non-technical institutions there was no option but to approach teachers who would not be very familiar with this technology. This caveat was proved to be true when talking to Dr. Sharma. He insisted that there should not be too much information in one programme because that might tire the students. He was perhaps not able to look at the programme as a non-linear hypermedia reference tool and always saw it either as a substitute for a classroom lecture of the conventional teaching or a unit of a distance teaching course book. He said "I think you have covered many areas and there shouldn't be too many areas under the same programme because that might tire the student. So in one programme there shouldn't be too many things. It's enough for one going". He further qualified his statement and said "It is I think more helpful for the learner to have different programmes for different volumes as it were on related subjects, may be, rather than have one programme in which you went on giving thirty pages of text on intertext, or intertextuality. It might have been very difficult for a student to learn everything. You could have explained intertext and then you can explain narratives and then you explain metanarratives and then you explain the difference between metanarratives and metafiction then it can become really difficult for the student to pursue very far. Instead if you have a programme in which you talk about narratives or narratology, for instance, if you prepare such a programme on narratology then that would be a very good idea but I won't expect one programme to cover the world's information even if it is related only to literature".

It was clear Dr. Sharma was not able to see the potential of non-linear hypertext in providing learners with enormous data to prod them to probe further and further on areas of their interest.

## 7.2 THE STATE OF THE ART IN THE USE OF MEDIA AND TECHNOLOGY IN INDIA

Most respondents said media could be used creatively and usefully but most confessed they had not made any effort to do it. The reasons given were that the use of media was not given serious thought or it was not a common practice. Quite a number of universities had television sets and cassette players but they were not used because they were either not in working condition or there were no video programmes available to play. It was said that the British Council used to supply video films and audio cassettes but it has for some reason discontinued the practice. It was thought to be a bad decision and the general feeling was that the practice should be revived. Quite a number of universities had language laboratories but they were rarely used. Ranchi University got funds for setting up a language laboratory but the authorities spent it for something else, said one of my respondents.

Most respondents had used no other gadgets like cassette players, TVs or video cassette players for teaching either. As against this some teachers reported using media in very innovative ways. Prasad said "If I'm teaching poetry I might play a tape once in a while; while teaching grammar I actually get my students to go and watch performances. I'm not using a technological aid I'm just telling them to watch performances. Sometimes we get together and see a video recording of a play. Rarely we get together and go to watch movies because people are not very

fond of that. That's a different ball game altogether. So we watch video recording perhaps, that's again I said depending on the availability which is extremely rare. I might show photographs of actual productions so that it underscores how costume in drama can actually change the way you perceive what is being performed. If I wanted to teach Shakespeare's performances I would show the same play performed at different times by different troupes and if I can show *Macbeth* performed in Japanese costume or in Indian costume, I can take off from there to get the class to talk about how they would actually receive this play if it was performed in that costume".

Media and means of communication were used very creatively and one can hope if they had more facilities they would have made good use of them. There were contradictory responses and evidences as well. Computers worth 1.25 million rupees were bought by the Kota Open University to be installed at Regional Centres of the university but they were not installed for more than a year of purchase, when I visited. Ironically one of the respondents at Kurukshetra showed a 3.5" disk which he got from a publisher from Australia which he could not read as the computer centre of the university did not have the necessary facility to read it. As the Jawaharlal Nehru University and the Utkal Universities were on Educational and Research Community Network (ERNET) they had *E-mail* facility but none of the teachers who was interviewed or whom I met was using it for one reason or the other. IGNOU has been fortunate in procuring the most advanced machines through developmental assistances provided by the British and the Japanese Governments. The faculty members did not seem to be using the equipment available to IGNOU except when they were invited by the producers to act as presenters for the audio or video programmes. Their role was only that of a presenter. At Udaipur, for example, two interviews were conducted in the language laboratory of the English department. The Head of the department

had offered his recording device to be used. The air conditioning device was not working because there was high electric fluctuation and as a consequence the atmosphere was quite stuffy. After the interviews it was detected that nothing was recorded because the recording device had not worked. The external microphone was not attached because it had not been bought. Almost all universities that I visited had language laboratories, television sets, audio cassette players but most teachers said that they were not using them. At Jamia Milia Islamia it was learnt that the administration had asked the departments to pronounce their computer requirements. They could, if they wanted, get computers for teaching purposes.

It is apparent from the empirical situation that it is not that the machines cannot be made available because a computer capable of running a hypertext programme would not cost more than a language laboratory. The familiarity with the equipments and training in their use are important factors which need more attention.

## 7.3 THE FIELD STUDY REPORT

### 7.3.1 ANALYSIS OF INBUILT QUESTIONS

To find out about the familiarity of the English teachers with the computer and its use in their day-to-day working the question 'How often do you use the computer?' was asked and the three options given were "Frequently, Sometimes and Never". Twenty percent of the respondents confirmed using a computer, but only sometimes. They used word processors once in a while for typing their essays. It is important in this regard to report that not more than one or two respondents expressed the desire to browse through *Technocriticism* on their own. Nearly everyone wanted the programme to be demonstrated. No respondent

read the story ('Cat in the Rain') or any portion of *Technocriticism.* So in essence the effort became a demonstration of the qualities of the programme and the instrument. While planning the questionnaire 'sex' was kept as one of the questions because it was thought that female teachers should respond more favourably to the use of technology. Out of the ten English departments of the universities selected for study two were headed by women and two other female professors were interviewed who had been heads of their departments. Their views were no different than those of the male teachers. Most teachers below thirty responded positively towards introduction and use of computers in the teaching of English.

All the teachers interviewed responded that they would like to view and use more such hypertext programmes if the machine and the programmes were made available. This response was received in answer to the question "Would you like to use more hypertext programmes?" The options were "Yes" and "No". Ninety percent of the respondents said yes. Quite often the interviewee tried to enquire about the price, make etc. of the machine which obviously proved that they felt inclined to use it either for personal use or for teaching if they could procure one personally or through their department. The teachers at the Jamia Milia Islamia, New Delhi showed keen interest in the programme but they were suspicious that it might not be easy and possible in the time frame to learn the programming language necessary to make such programmes.

It was planned that all responses with the profession as 'other' would be deleted but this was not needed as all such viewers were given entry through 'Cat in the Rain' stack and then brought into *Technocriticism* and the questions were avoided. Recording of 'Exit time' was avoided by exiting through menu-File and Quit HyperCard.

## 7.3.2 INTRODUCTION GIVEN TO THE RESPONDENTS ABOUT THE PROGRAMME

As a student of English literature at the undergraduate and the postgraduate levels and also as a teacher of English literature quite often I have felt that there are portions in the text originating from a different culture which I failed to comprehend because the 'signs' and 'symbols' used were alien to me. The understanding of these culture specific symbols is difficult because they don't form part of my social milieu, culture, domains of operation or surrounding. Sometimes when I look up the dictionary to find the meaning of a word or a phrase the meaning is not clear because the lexical meaning explains the word in the British or American context, depending upon the country where the dictionary was compiled. A dictionary gives the meaning of a word in the context it is used by the native speakers. The meaning is as displaced and beyond a non-native's domains of experiences as the text itself. What we actually need is pictorial dictionaries and I'll go a step further and say we need dictionaries which can show meaning in action through the help of video clippings. As a very simple example I would like to remind you of Keats' 'Ode on A Grecian Urn'. Keats translated the paintings on the Grecian Urn in words. When we teach this poem we are again translating the poem. Our job might become easy if we show a picture of the Grecian Urn to the students. I am not talking only of visual medium; I would like to take help of any stimulus which can assist instruction and enhance communication or decoding of texts.

By non-native literature I mean literature emanating from a different part of the globe from that in which it is read. The effect of this fact results in the encounter of symbols used in texts which are not part of the reader's physical and social world. Even at a synchronic level a text written by an author from a different part

of the country (particularly a culturally diverse and physically large country like India) would not be understood because the symbols used would not be part of the reader's world. For example the description of Pongal, Dravidian architecture and customs would not be understood by a north-Indian reader but they can find similar type of festival in their region. For this study only British and American texts would be discussed because they have traditionally been part of the university syllabi but they are also distant culturally.

### 7.3.3 SUMMARY OF QUESTIONS ASKED IN THE INTERVIEWS*

#### Question 1

It seems to me that when I read a text I develop a proximity with the text if I have seen the picture of the author and have known the milieu in which he was writing and the context associated with it. On a number of occasions such information has come to me from pictures, films and audio cassettes. For example in teaching *Wuthering Heights* I used pictures of Yorkshire Moors to explain the ruggedness of the landscape. While teaching the same novel I used the map of Yorkshire to situate the story. Have you ever felt the need to use non-verbal media for teaching your students?

#### Question 2

We, the teachers of English, try to give a literary explanation to texts in the classroom and that's how we groom our students in appreciation of literary texts.

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* The arguments put forward through these questions do not exactly (only largely) represent the views of the researcher. These are summaries of questions asked in personal interviews. They were meant to start a debate between the researcher and the respondents. For example in conversation with Professor Sharma the researcher had to take an anti-technology stand to encourage debate.

What happens in the process is that we can't hold so many different points of view and it is intellectually not feasible to be master of different schools of criticism. As a consequence one who is a Feminist or a Marxist has a Feminist or Marxist interpretation of the text. In all probability the teacher will give to the students the reading list which refers to the books and to the critics who subscribe to this particular school of criticism. This is to my understanding biasing students or limiting students' capabilities as to their own choice. Do you think it happens? and if so, how do you react to it?

**Question 3**

In teaching I normally compare and contrast the text in consideration with other works. I make comparisons from the same literary tradition or sometimes I compare it with a text from the native literary tradition. Say if I am teaching a poem on nature I would like to refer to works written on nature from different literatures of the world. Do you think this is a good method of teaching non-native literature or not?

**Question 4**

Is it possible and is it necessary to understand the target language with the same precision and accuracy that we understand our mother tongue? There are words and expressions which do not explain objects, ideas and actions from our own society, say for example words like pub or broth (too many cooks spoil the broth) which we don't have in our society. Do you think we should make efforts to explain what these are or should we leave these by saying 'forget about it'? Humour, wit and other specific expressions will also pose similar problems.

### 7.3.4 METHOD OF ADMINISTERING THE PROGRAMME

In the beginning of the survey an introduction (mentioned above) about the idea of this research and its development was given and then the programme was showed to the respondent. It was found that respondents started comparing this programme to their classroom and either claimed to be doing everything this programme could do or started talking in superlative terms about this programme. Teachers from the same department made counter claims. The situation turned to be something of a confrontation where the researcher was seen as possessing an invaluable source. Communication became much more difficult in this situation.

After about the first ten respondents the method was changed. I first started by giving the introduction and asked for their experience and their solutions to such problems. It was noticed that the attitude was very different. Now they had a feeling that I was there to know their opinion and think about solutions. They found themselves in the position of authority. After they had said everything I said I had tried to find a solution through hypermedia and then introduced the instrument. By now a friendly relation was established and they did not seem to mind looking at my programme from a friendly point of view.

Initially it was decided to interview and record the interview of only one - preferably the most senior member of the staff. After the first half dozen interviews it was felt that while noting an interesting point made by the respondent the communication was broken. The respondent stopped speaking and started looking at my face. It was then decided to record all interviews. Some interviews were very short, some very long and dragging, but everything was recorded. Once or twice the tape finished and the respondent was reminded of the time and stopped abruptly. Once the battery ran out of power and the recording was poor.

But the strong point against recording was that the respondent was normally too formal and cautious not to speak anything which they did not want to commit. These were comments mainly regarding students' performance and government policies regarding English teaching.

## 7.3.5 RESPONSES TO QUESTIONS ASKED IN THE INTERVIEW

### 7.3.5(a) Do you use different media in teaching?

In response to the first question most teachers had similar views about the problems faced by teachers of English. Professor Sharma's response summarises views of most teachers. In response to the first question Professor Sharma said "Yes of course when it comes to the teaching of literature the multimedia approach is not only very helpful I think we ought to think of it as something essential. Wherever possible it ought to be made available, for example when you are doing a non-native text you are dealing with a non-native alien culture and I think around most of the world as in India you can be pretty sure your students will be quite unfamiliar with the British or American or Canadian or Australian landscape, cultural landscape, the physical, geographical landscape the social landscape, their foods, their houses their clothing their modes of interaction, manners the way of life. I think showing them movies, to start with, about this variety of landscapes associated with a culture, a country, a society will be very helpful indeed. You could show them say three to five hours of it. It will vary from situation to situation, depending upon the time you have, how much footage you have: you can show them films on the cultures where the texts belong, exactly motivates, vets and satisfies their curiosities". Dr. Gupta held the same view about showing life and society through the visual medium. Dr. Gupta said "You'll have to increase the cultural input in one way or the other. What you would require as any

teacher in the classroom would require [is] more information on that culture from which the literature has relation with - Romantic poetry or nature poetry in English. Then I guess some kind of visual descriptions as well as visuals on the English landscape for example or seasons. We can talk as we are sitting here in India about the rain. Indian rain is not like the British or the English autumn or spring, English landscape. There is nothing like a kind of landscape you can see in India I think visuals specially when you are talking about the scenes, scenery, landscapes or the seasons you'll have to have lots of visuals. Similarly customs and usages and conventions which are deeply British and which even a trained teacher of English literature sometimes might find it hard to explain. They would somehow or the other have to be painted to the programme".

Dr. Gupta's observation was relevant in the context of including pictures and also in the context of explaining idioms. The sort of rain that will be termed 'raining cats and dogs' in England will only be shower for the Indian climate. To explain this to the readers perhaps real-time video is the only option.

Professor Sharma was subscribing to my views totally so to get the opposite arguments I asked "When it is some general introduction to the country that might be fine but in teaching a text we don't exactly teach the landscape because an author does not only describe the surroundings. He recreates his experiences filtered through his imaginative genius. Should teaching not be directed towards understanding this imaginative recreation?" In response Professor Sharma said: "I would say to myself let me show them the contours of the country of the culture where the text is rooted. Let them get some idea. Well if it's a modern novel and if I am teaching it in a small village then they ought to have some idea what sort of clothes people wear in England specially in the time period where the book is located. What kind of clothes men and women wear, what kind of furniture they

use and what kind of homes they live in and that sort of thing, ideally.

Then from the general I would move to the particular and I would look for films that relate either to the text itself and I'll give you examples, because we have done this, I have done this myself, either related directly to the book or to the period. For example, ideally when I teach *Scarlet Letter* to my postgraduate students I ask them to read the text then show them the movie and they would read the novel again, or most of it again after watching the movie. And I used to ask them if it made a difference. And they invariably said 'Yes'. And then I would question them more closely just to make sure they are not being nice to me and ask "How?". They would tell me. And it is quite often that when you are teaching fiction or narrative poetry or drama the characters succeed in bringing out the underlying emotions, moods much more vividly than the printed word would".

In response to the same question Dr. Gupta said "Non-natives very often fail to appreciate English literature because they do not know anything about the English culture or English way of life, the English landscape. When I say the landscape what I mean is the total thing - the traditional modes of behaviour, traditional modes of speech, traditional modes of communication - all of these are culture specific things. The ordinary English teacher or the average teacher of English in India for example doesn't have that information. There are very few of us who have been to England or who have had exposure to that world. Whatever information we provide our students is at best second hand and to the extend that is possible for a single teacher to bring as much information from books as possible. In this kind of programme may be you can bring some authentic culture specific items and build them into this programme so that the student can refer to a particular word over a particular genre or a particular school of criticism or a particular episode in the history of English literature. He can also refer to a certain

cultural pattern or certain mode of speech or certain mode of behaviour for example I will cite things which an Englishman might say in a living context and which would sound very rude to the Indian student. He might say well I couldn't say this, this is not polite at all or the reverse might be true and illustrate those things. In order to understand and appreciate any given literature you have [to] sort of penetrate that culture get into that culture and it's the job of the teacher ...". Most other teachers echoed the issues raised by the above quoted respondents. Nearly all the teachers felt making some kind of visual support available to the students would be useful. At least three teachers (now professors) recalled one of their teachers who had been to the Lake District and taken some slide films and showed them to his students. This had left a lasting impact on all these students. It was apparent it is entirely necessary to include visuals at least pictures for making a stronger impact. Discussion on the use of media automatically led us to the aspect of providing the students the context of a foreign text.

### 7.3.5(b) How do you provide the context of the text which for obvious reasons is missing?

Most universities either never had or have done away with the social history aspect of literature and as such the context of the text in lost. The texts are read in a vacuum. Even those universities which have a paper on literary theory do not have a very good outline. The syllabus ends with T.S. Eliot or F.R. Leavis. The result of the removal of the social history aspect from the syllabi is that most texts are found irrelevant in the Indian context. A number of teachers now argue in favour of replacing these texts with Indian texts. Dr. Sharma gave a very relevant example from his own experience. He said "I think there are very great number of such ideas, experiences that cannot be easily explained. I have been a student and

a teacher of English literature for about twenty-five years and so I feel there are fewer such areas in which I find difficulties but I'm sure my students find difficulties in many many areas. For instance fighting a duel - in teaching [Samuel] Johnson's *Life of Savage* (1748) and killing someone in a duel being a valid thing was just not acceptable to my students".

Dr. Anita Gupta said "They [the students] cannot relate to [the text] because they don't understand what we [the teachers] are talking about. For them it is just a poem which is in the course which has to be understood somehow because they have to answer a few questions and they must get through [the examination]. It is necessary that the students appreciate the things [and] related [sic] to it. Literature should be a thing of pleasure".

Even though Dr. Anita Gupta opined that literature should be appreciated and not be taken as a subject she sympathised with the students for not being able to do that. She said "It is difficult for Indian students to relate to an experience that they have never seen. They have not even heard about it because in the environment in which they have grown up there is nothing like it. To bridge that gap I think a multimedia approach would certainly help because [the most common] approach that is followed in India is [the] lecture method where there is almost a monologue". She saw some in *Technocriticism* (quoted below).

Dinesh felt there are certain things students could never be taught because they were beyond the students' socio-psychological imagination. As an example she said "As in Hopkins the idea[s] of Sin and expiation need more explanation in order to be communicated to them. But they cannot get to the root of it because it needs faith in order to fully understood what Hopkins is communicating so that difference would of course be there".

To all those who raised the issue of a foreign text being beyond the students' domains of daily life the solution proposed was the method of comparative study. This aspect was highlighted and covered in *Technocriticism.* So I proposed to the respondents that this problem could be overcome if we compared examples from different literatures, including native.

### 7.3.5(c) Is the teaching made comparative?

"I hope so, but I doubt it very much. Partly it's a question of how much your students, your class is familiar with. You don't want to take your examples with lots of unfamiliar material because it can be very discouraging. As often happens, even getting your class familiar with the world of the text itself is not an easy job and if you start taking illustrations for purposes of comparison from other cultures the task of learning is made more daunting. The student is discouraged. I would certainly do [this] but within the limits of what the student is familiar with. I would take my examples from the students' culture that the class is familiar with. If I teach the English novel to enrich my student's experience [and] start taking my examples from French or Russian literature which he or she is not familiar with then I am wasting time and confusing the student, making his job of appreciating the text more complicated. If he is a Hindi speaking man and if there is a comparable situation or set of characters or a single character in a Hindi novel and if he has read it I will build on it more often than not. The point is that these days you find that a postgraduate student has not read half a dozen decent Hindi novels either" said Professor Sharma.

Dinesh raised a very important point that we do not need to make an effort to situate only foreign texts but also need to adopt similar approach to teach even

native texts. She said "I felt very disappointed when I was teaching Raja Rao's *Kanthapura*. I thought that was within the experience of the students, what he describes about the freedom struggle and all that [it] meant. But, what I found was that the freedom struggle and what it describes didn't mean anything to them. So it is not only an English text it is sometimes we are not able to communicate or get through to the students what is the real feeling behind it and make them feel that experience. It's even in an Indian text. There is something which is distance from us in time ... If you ask me how I try to bridge the gap I find that I did not use other media or means but made them refer to the film *Gandhi* and to stories that are there about the martyrs for the country to make them realise how strongly people felt about these matters and how Raja Rao had transported the same ideas to a small village to communicate what the 'Freedom Struggle' meant".

Similar views were expressed by most other respondents but some denied doing that because of the limited readings of the students. Those who desisted from doing that said the students might get more confused. As an alternative the critical analysis of text was proposed to which the following answers were given.

### 7.3.5(d) Are Students given a critical appreciation of texts and introduced to different schools of criticism?

One of the prime aims in the development of *Technocriticism* was that it would provide users access to different approaches to textual analysis. This was considered essential for individual freedom of choice and selection. This was not possible in a classroom situation because any particular teacher is influenced by his/her own understanding and background. Most of my respondents agreed to this idea in principle (as expressed in question 2 above), but most teachers found it difficult to accept that existing practice was lopsided.

Literary theory seems to be one of the neglected areas of English literature syllabi. Most teachers said they relied on the printed text because the students were not capable of assimilating more but perhaps Kaul is right when he says:

> Institutionally and personally, most members of Indian university and college departments of English still doggedly ignore the entire production of contemporary literary and critical theory, and reject especially any examination of the ideology or history of their academic activity. For older academics, this ignorance is sanctioned and justified in the name of Arnoldian and Leavisite models of literary and cultural values; for many younger academics, such ignorance is the result of their restricted exposure to a curriculum and a pedagogy that celebrates the unexamined virtues of 'organic form', 'moral/ethical vision' and 'creative genius', and systematically excludes all other social, philosophical and historical concerns (p 208).

Prasad was the lone respondent who said he was using audio tapes for teaching about different schools of criticism and different critics. It is important to mention here that in JNU teachers have the freedom to select their own area of teaching and design their own course outline. They are not constrained by the type of fixed syllabuses as are teachers in other universities. As a consequence JNU has quite innovative courses. Prasad said "I use audio tapes where various peoples' theoretical positions have been outlined; like Gayatri Spivak, what does she stand for? what she has written and a kind of bibliographical [list for further reading] thing is also there, what books she has written? All positions were covered and leading exponents. We have (like) Feminist, Marxist and then leading practitioners and what books they have written. I use it with students. In the context of teaching you can talk about costume, setting, language and the framing devices that one has for judging all performances. By framing devices I mean where it is performed which city, which auditorium. For example if it is Delhi,

say, not talking about London, talking about Delhi we'll start, who is doing it, for what reason? ... You immediately start thinking in what you would call ideological terms".

As against Prasad's beliefs and practices Professor Sharma said "As a matter of fact in most literature teaching in India those at the undergraduate and postgraduate levels, the teacher's personality or his ideology doesn't get into the act at all because most of the times, and that is our problem, he doesn't seem to interact with the text as an independent, autonomous reader. Most of the time he pays scant attention to the text and he gets his teaching material from the critics, respectable or otherwise, and that is what he passes on to the students. So we are luckily safe in India, though ironically, safe of the ideological bias or influence. Even at the postgraduate level very few teachers would bring their own ideology. I doubt that most teachers of English literature have an ideology. There are very few. Most of us, my perception is, when we take our job seriously, use the approach of the Formalists or the New Critics. So we mostly focus on the meaning that a close linguistic, stylistic analysis of the text gives. We stick to that. First of all and ideally even today we have left New Critics ages behind but even today as a teacher I will say that the most useful and the most trouble free approach is the Formalist approach. Now what are we talking about is the meaning that would be available to any intelligent and careful reader of a literary text. That's the meaning that he should get out of it. Now it is for critics to say new significant things about the text, to burrow deep into the text and go beyond this plain, intelligent, careful reading because a rich text can yield all sorts of meanings to people from different ideologies to different predilections. So that's fine but in the classroom I will be horrified if I found a teacher, who is a Marxist, giving the class just the Marxist interpretation of the text and then giving a bibliography that is nothing but Marxist criticism. I am not a Marxist and I teach

James. Arnold Kettle's work on James, and there are six others, is a must because I think the Kettle interpretation enriches the student if he has the patience to read the readings I suggest. It will be very irresponsible of a teacher to do that".

CBS: There are different schools of criticism and you say most of us are still with the New Criticism. There are other very important schools which you are aware of. Would you not want your students to know about Formalism? about Structuralism? about Deconstruction? and about Hermeneutics? If yes how do you do that?

"We are familiar with different schools, some of them, not all of them. For example if you ask me, my ignorance of the Deconstruction approach is truly profound. I know so little about it, but Feminist and a few others, Marxist yes. If a student comes to me and tells me he came across this word somewhere and would like me to enlighten him a little bit on it - I might do that but otherwise it is not particularly important to know about this school. To tell you the truth as a teacher of literature I would want to have as little to do with different critical approaches as I can. I would be concerned with the text because that is literature for me, the novel or the poem or the play, and that is the most important thing and I would say get as much out of it. I much rather read a text three times and get the student to read three times rather than ask him to read faintheartedly in the lackadaisical manner and send him to half a dozen critics. That makes no sense to me, not at all. No intelligent teacher would want to do that.

To tell you the truth at the undergraduate level I wouldn't like the students to know any of the schools of criticism in India unless I am dealing with a very sophisticated group of undergraduate students. At the masters level I would like all these '-isms' to be taught in a separate paper. Why would I tag all these to a

text; of course apply all these to different texts. I would use the text as illustrative material".

Dr. Gupta implicitly accepted that the teachers of literature are not able to do justice to the critical appreciation of the texts because of lack of understanding of different schools of criticism or personal convictions to a particular approach. He said "It also depends upon the extent of an individual teacher's own reading; it all depends upon the individual teacher's own way of looking at literature or his own set of beliefs about literary criticism. Very often what happens [is that a] teacher's reading is limited in a certain direction which is conditioned by what he believes literature to be what he believes the function of literature to be or the function of criticism to be. Any single teacher can't possibly do justice to all these schools of criticism or all the schools of thought, not in equal measure. What he can do is possibly read up different schools of criticism and then give his own version of thoughts". It was clear that *Technocriticism* was able to provide a better introduction to different schools of criticism and develop a discussion amongst the users.

A number of respondents had favoured the text-based approach where they emphasised the close reading of the text. As the last question they were asked if they paid any special attention to the teaching of words and phrases.

### 7.3.5(e) Is it necessary to teach the meanings of words, phrases and idioms as used by native speakers?

From the discussion on the nature of language and literature in Chapters 1, 2 and 4 above it was clear that the basic units of literature - words, idioms and phrases - are crucial in the proper understanding of a text. The words and phrases carry the

meaning and in the event of misunderstanding or non-understanding of these the meaning of the text may not be understood. This view has been held by the Formalists, Hermeneuticians and the New Critics besides others. This aspect was well covered in *Technocriticism* by the use of buttons provided in the HyperCard. This aspect was put to the interviewees through question 4 mentioned above (see section 7.3.3).

In explaining this aspect often examples of explanatory words like pub, broth (including too many cooks spoil the broth) were given. In response to this question Professor Sharma said "We don't want them to have the vocabulary of Milton but I, more than the meaning, would like my students to get some idea of what kind of place a pub is, what kind of ambience it has, what place it has in British social life and that sort of thing, certainly. As a matter of fact these things are learnt cumulatively over a number of years, through reading experience and so on. But if I am teaching a first year class and I find that in a story or a book I can get on without explaining what a pub means they are getting an idea what the place is meant for or is like. I won't worry too much about it. It will depend a great deal on the context and significance of it".

Dr. Gupta wanted to highlight the cultural questions instead of the idioms of a language. He said "Understanding the English idiom not the idioms and how you reach that higher level thing called the English idiom through these components - words and phrases, idioms, ways of saying things, ways of communication - I don't think components are important if the whole is important then the components are not important". What Dr. Gupta was referring to was the 'essence' of the English texts. He was hinting that teaching at that micro level was not desirable because the overall understanding of the text is important.

Dinesh held similar views about the idioms and she said "When there are such terms for example 'the apple of discord/the apple of one's eye' the image behind it has already died away and such terms have become sort of current usage, having lost the earlier imagery that was there and that's why we call them hackneyed. It's not necessary to give [their] background. If I say 'bury the hatchet' so this is not a term that is now used often in colloquial English or in writing. These are the old left overs of what was considered a very idiomatic English".

In the course of the study some respondents raised interesting and also important points against and also in favour of use of media which are presented in the next chapter. Some respondents commented on the positive and negative aspects of *Technocriticism.* In the next section I will present these views.

## 7.4 SOME SUGGESTIONS ON *TECHNOCRITICISM*

Quite a few respondents were not happy with the structure of *Technocriticism.* The suggestion was that it should be more intensive on a text or a particular topic like 'Metaphysical poetry', 'Daffodils', etc. and not be of general nature. Professor Mukherjee suggested that "some more illustrations like buildings, carriages etc. should be used". Trying to draw from her experience in teaching Indian English literature she added "If I am teaching Indian texts abroad I have found films useful because they altogether give an ethos which a single picture cannot ... In order to actually work it out you work on something intensive, say *Macbeth.* You do a complete study on that text".

Jain had doubts about the clientele of hypertext programmes and queries about marketing these programmes. But she was happy such programmes would help make a collage and let the meaning emerge out of the text. As a suggestion she

offered "Define objectives more clearly and more specifically. If it is an aid to class room teaching it can perhaps be used with greater use because institutions can afford certain gadgets and a certain amount of technological instruments and teaching aids and then the teacher might use it for something more than a blackboard or more than a audio programme with three or four things - sound, picture, words, video and the transparency all put in one. So if you are looking at it from that point of view may be it is a very good thing. May be perhaps I would also like to use it. It's so much easier to use one thing and say this is this function and say this is this function; it becomes a multifunctional kind of thing. If you are looking at it as a way of improving educational standards for the private students it will become a good substitute for the 'guide books'. They will not go further than this. They will still learn much more, so it's all right".

Professor Kanwar saw the potential of this instrument as very great in arresting the drop out rate in distance teaching. She said "In distance education set-up we have a very high drop out rate and that is because students are isolated and are full of their own insecurities without being able to share them with anybody ... In such cases if we have this kind of technology which is going to create [a] network of students where people can get back to each other then I think a lot of this kind of attrition rate can be arrested. People will have support from other people like themselves and they will have so many things in common without actually going out of the house or without actually having to face the aggressive situation which in the first place prevented them from entering the conventional institutions. That's the most exciting thing about this technology for distance education".

The above mentioned interviews are of special significance. All the professors do not show much concern about the unavailability of the programme. They are or have been heads of their departments and are aware of the budget of their

departments. They are only sceptical about the usefulness of the programmes. But it has to be kept in mind that this was their first exposure to such a programme. If more such programmes are shown they would get inclined to procure machines to run such programmes and become more critical. All the three said they would like to see more such hypertext programmes.

Commenting on the problems of adopting *Technocriticism* in the Indian context Jha felt that because the level of students varies so much it may not be relevant for all the students. Jha said "It's a non human interaction, more than one way, and that's the idea I think that there may not be a teacher in the classroom and the student can interact with computer and get the relevant information. In that case what I want is certain kind of improvement on this. When the teacher is in the classroom he knows who is a better and who is not a better student. What is the standard. Supposing you are in a first year class you know that the kind of information you are imparting to the BA first year students you are not going to impart that to the MA first year students. So you know the difference. But all the students are equal for this machine. This will do the same sort of mechanical exercise. Why don't you start the interaction with the computer where the student should clearly say that I belong to this level of understanding literature like 'O' level 'A' level or whatever. One would give that information to the computer that I am, say, starting to read English literature. Now he goes on reading the text now he has some enquiries - so he goes on asking the questions - the computer should have the device to tell the student that it is not needed for you. Group in the sense of level other than the level of BA and MA. As you start the programme the computer gives you certain questions and you answer these and the computer will decide what is your grade".

Similar views were expressed by Dr. Gupta. He said "I consider all teaching to be

some kind of a educational management. What I mean is that when a teacher goes to a class he knows what is the level of attainment of the students. He knows how much of input he has to provide within the stipulated time period and he divides the class hours accordingly keeping in mind the goal that this much of information has to be provided in this time. Now this involves education management and also time management and within this stipulated time what the teacher as a human input mechanism has is that he builds into his teaching to the best of his abilities certain mechanisms by which additional information as and when required by different individual members of the class is available. But teaching also is built upon withholding of certain information - withholding not in the negative sense - withholding because the teacher feels and the system agrees that at this MA level the other information is not relevant, not required, that is what I mean by withholding information". He wanted such a mechanism to be included into the programme so that if a student fails to answer self check questions appearing from time to time he may not be allowed to go beyond a further point.

The issue of teaching to large groups is a problem to be reckoned with in most teaching situations in India because of the swelling classrooms. Dr. Anita Gupta expressed the same view in very genuine terms when she said "If the class is segregated into small groups where we cater to a particular level of understanding it makes sense. It will be a meaningful experience but the whole exercise becomes meaningless when in a class of two hundred fifty or three hundred girls you are screaming at the top of your voice, you are looking at the watch when the bell will go and the class will be over".

In response to suggestions for improving the input to *Technocriticism* Dr. Gupta said "One component which I think can be added; if you want to go into more detail - for example the typical British understatement what the Americans are

known for overstatement. Suppose a teacher who makes this kind of statement to the class. You'll have to provide some kind of input in order to explain [what] is meant by that and that is a very culture specific thing. You are teaching English literature to those who are not natives and if you make this kind of a statement that the British are known for making understatement and this is something which is true of the entire gamut of English literature whatever writing you take up. Now how do you illustrate this? For that you have to think of some kind of an input and that is a typically British cultural pattern or cultural thing".

Dr. Gupta had raised a very important point. Normally such generalisations are made about races and cultures and often people try to prove these generalisations through examples from literatures. I asked Dr. Gupta how he did it in his teaching. In response Dr. Gupta said "Conventionally what we have been doing is reading up wherever was available. Presenting it to our students in the best way possible but I think since you are going into this *Technocriticism* thing possibly this thing itself marks an advance on conventional modes of teaching and one way that advance can be highlighted, can be meaningful is by putting as much information as possible which a single teacher possibly can't bring into the classroom".

Dr. Gupta was inclined to promote the instrument and support it to be used for teaching in the universities. To know about the practical developmental aspect of the instrument he asked "How many people do you think would have to sit down together and build up this kind of a programme?" I explained to him the modalities of the development of the programme. In reply then he said "What I visualise is that for this kind of a programme you would need to have a team of people for one individual can't build up a whole course of this kind for different levels for different sets of students and when you have a team of teachers they'll be like the

'too many cooks spoil the broth' because if you are teaching a poem and you build up a programme for that poem - teaching of *War Poetry*, another teacher, your colleague is doing another poem. Now his perspective is very different, his orientation is very different, his ideology is very different. He might build up a programme which would be perhaps radically different from the programme that you have developed. Now if it's a beginner's programme and he is exposed to those two programmes built up by these two different teachers then there is a possibility that the student would go away from the discussion [a] rather confused person not knowing which line to take, which programme to believe".

## 7.5 SUMMARY

The study generally reflected that teachers responded positively to the programme and were appreciative of the qualities of the instrument. As the potential of media and technology has not been given any serious thought and also the teachers have not got any education/training in their use their potential has not been explored. Having said that one must also mention the reasons for this. Developing countries generally follow the western pattern and use of non-textual means is a recent addition to the western practice itself. Books and journals reporting research on them and advocating their use would slowly reach the Indian libraries and they would be incorporated in the curriculum.

Modern gadgets may reach the users faster because of the new technology policy of the Government of India and the special focus on it. Kohli (1994 : 32) says "In less than a decade Indian software exports have soared more than tenfold, from US $ 24 million in 1985 to an anticipated US $ 350 million this year".

# CHAPTER 8

# CONCLUSION

**CONTENTS**

## 8.1 INTRODUCTION

The reason for taking up this research was the inability to understand and/or explain symbols appearing in non-native English texts. So the primary research question was : 'Can hypermedia perform the dual purpose of ascertaining context and provide an approach for teaching English Literature to (Indian) students in India'. As the answer to this question could only be provided through evidences from studies on media, technology and the possibilities of their application in India the discussions and evidences have been presented in different chapters and are also analysed in the following sections.

I was told by one of my respondents that our students are bombarded by media information and what we need to do is to help our students 'escape from the visuals'* . This observation was true and not quite true. It is true in recent years the channels of communication have improved manifold compared to ten years back but not quite true because it is nowhere comparable to developed countries. It might be thought that the bombardment of media messages is preparing the learners for the educational format of the future. There are contradictory but empirically substantiated arguments in favour of both stands that exposure and familiarity with the media of instruction is helpful. Salomon (1984b) says it is not the training but effort invested; and Salomon (1974) and Arnheim (1974) say it is the training in the media which accelerates the process of learning. Clark's (1983) finding of 'no significant difference' has made media specialists reconsider research on the use of media in teaching. Clark (1983) opined that

> media are mere vehicles that deliver instructions but do not influence student achievement any more than the truck that delivers our groceries causes changes in our nutrition (p 445).

* From the interview it was apparent the respondent meant media when he said 'visuals'.

It is precisely because in foreign language teaching we have no appropriate 'vehicle' we are looking for a vehicle which can deliver the goods. Neither print nor video nor audio alone is capable of catering to the needs. We are aware research says:

> if print is compared with video ... the effect of video will be no better than print. In fact, it may sometimes be worse because there are some teaching functions for which print is superior to video (Koumi 1994 : 43).

There is no consensus amongst media specialists and taxonomists about the qualities and sequencing of media. Perhaps this aspect of research was never before felt as today because the symbiosis was not quite required. With the flourishing of hypermedia in recent years the issue of proper mix and role assignment may take a priority position on the research agenda. Heidt's suggestion that "What we need is a very detailed description of each single medium which works with more refined categories than the simple 'applicable - partly applicable - not applicable'. Thus the developer or the teacher will be able to construct his own classification and decision model according to the particular instructional problem in question" (Heidt 1975 : 20) remains to be fulfilled. What foreign literature teaching requires is a platform to make available information in different forms - visually represented, read, sung, enacted etc.

## 8.2 THE BACKGROUND AND FINDINGS

Every teacher of non-native literature is handicapped. S/he belongs to a culture where enough information for decoding foreign symbols is not available. Such teachers find themselves performing an inferior job compared to their peers in

other disciplines. They suffer from an inferiority complex because they cannot compare to their peers in native literature teaching ( for example English teachers from India to English teachers in the UK or Hindi teachers in India). This handicap is because of the unavailability of information and understanding of the milieu of the target literature. So the effort should be to make available all desired information to the target readers.

It was clear before I embarked on this research (in October 1991) that the compact disk technology had made available a platform where unimaginable amounts of data in different forms could be stored. Quality of data (particularly video) even today (in July 1994) is not quite satisfactory but one can hope the technology will provide satisfactory solutions in the near future as very rapid progress is taking place in this area.

Available large (i.e. CD) multimedia programmes are not addressing the pedagogic needs and the small (i.e. disc based) multimedia are not capable of making truly hypermedia programmes because of size. The research findings which seem to motivate the print-based multimedia techniques like providing self-check exercises and using didactic language have not been applied. What print-based multimedia did by altering page size and including pictures is innate to computer-based multimedia because most hypermedia programmes are interactive and intelligent systems. In *Technocriticism* this aspect has led to the addition of the 'Test' stack. One hopes because the active hypermedia teaching programmes would hold large databases and would be interactive every time a learner used s/he will go through a new path and so the major criticism against media that it loses its impact because of repeated use (Arnheim 1974) would not be true about the use of media in hypermedia. Every time the same visual can appear in a new context.

The English literature syllabi of most Indian universities do not include components on media and communication and so I had no idea about the possibilities of using different media for teaching. I felt the helplessness in explaining the symbols appearing in my English texts without providing the context. In trying to find ways to make my teaching relevant to my students in India I had researched on teaching English through television. My research (See Sharma 1989) assured me of the potentials of television. Television, like other media, had its limitations as well which I have mentioned at several places in this research. Multimedia, I had expected, would overcome the limitations of a single medium if a proper mix of components was made.

I had started the research with the idea of establishing the efficacy of available media in explaining non-native literary signs. The intention was to examine the possibility of decoding the literary signs through the symbiotic relationship of different media.

The issue was not limited to the bringing in of different media. The application of a non-teaching tool involves other questions like the availability and training of the learners in the use of the means involved. Application of multimedia not only involved the reexamination of the efficacy of different media involved but also the familiarity with the computers. Available research in media and media taxonomies becomes to a great extent irrelevant. Media research will have to see the relevance of each medium afresh in the context of multimedia. The cognitive effect of a film and the cognitive effect of a film in a multimedia programme will not be the same. Their use and focus will also not be the same. These questions are very important but they clearly fell outside the purview of the present research. The present research has taken the findings of the available

research as it is but a re-examination of different media will be necessary in the context of a multimedia programmes. To ascertain the needs, priorities and the future of multimedia in teaching literature this aspect was discussed with the Indian teachers. Their responses on *Technocriticism* have been presented in Chapter 7. Here I present some views expressed generally about the use of media. The opinions of the respondents were divided in favour and against the use of media.

## 8.2(a) ARGUMENTS IN FAVOUR OF USE OF MEDIA

Most teachers showed familiarity with the use of one or the other medium in teaching. Nearly everyone had experienced the benefits either as a teacher or as a student. For example Jain said "When I was teaching Wordsworth I took a whole book on the Lake District and showed them, places, Grasmere Cottage and these things so that they relate to them. I got the film on *Ancient Mariner* from the British Council when I was teaching 'The Ancient Mariner'".

When talking to Professor Sharma he seemed to confirm my views so I put the opposite argument and said to him that a film or a video is not an author's creation but a director's creation. These are likely to be the director's interpretation of the text. Why should we expose our students to yet another 'inauthentic' interpretation? In response Professor Sharma said "Especially when it's not a native text you want to ease your students into the text. In any case even the most conventional and the most unimaginative teacher provides some kind of an introduction to the culture, to the times the text belongs to, and so on. I think the more imaginative, enterprising teachers even before the advent of electronic age and non-verbal aids, for example even before we got into the television age the age of the over-head-projector and so on used maps for

teaching. In my own teaching of American Literature as often as I can I like to put up a map of North America on the wall in the MA class. They should have some idea of where this blessed country is in relation to the rest of the world and what do I mean when I refer to the East Coast, what do I mean when I refer to Middle West America? So we use these aids. So you are right, no film, no text nothing can be totally free from ideology and on this earth we are condemned to making use of what is most suitable and is available".

Teachers are generally concerned about the falling standards of English in the university departments and the use of 'guide books' which are popularly known as 'bazaar notes' (bazaar = market; i.e. cheap notes) in India. Someone said students don't come to the class because, they say, they don't understand the lecture and they can manage with the 'guides'. It was especially mentioned that I should not confuse 'guides' with the *Methuen* or other standard casebook series. Some were optimistic *Technocriticism* and similar programmes might prove to be a good substitute for the notes whereas some were suspicious this might become another form of cheap notes. In this context it was suggested that programmes be prepared on the texts prescribed in the university because students won't use it if it does not help them pass the exam.

Mukherjee said "I am impressed by the system and the technology of the system but I think the usefulness of the programme will depend on what you are putting in it ... I am saying that the potential of the system is very great but one has to be very careful that it does not become what at one time guide books used to be. You have given clear answers, clear statements, capsule information. So the really important thing is to put the ideas in such a way that they do not simplify it ... This is fantastic as far as information based courses are concerned but the problem with literature is that it is not information based but interpretation".

Dr. Anita Gupta was very happy the programme had mechanism to get some feedback from the students. She felt handicapped in the classroom because she had no way to know if she was making sense to the students or not. She said "The teacher speaks; the students hear I don't know whether they listen, they are only physically present. We have no feed back whether what we are communicating to the students - how much of it we have succeeded - we are not aware. In a large class it is not also possible to ask the students but I feel that if the lecture method was supplemented by other method - as you are suggesting - I think it would certainly help".

Professor Kanwar saw *Technocriticism* as a supplement to the classroom teaching but not a substitute for the teacher. She said "I don't think anybody has any problems with the techniques that you are employing or with the whole system as such and as far as distance education is concerned I think it is very useful. In the conventional system when we teach we might teach in a classroom which is fairly interactive but since the lecture halls are big a tutorial system is better. We [in distance education] have an option to that also plus we use multimedia approach in the sense that we use video etceteras to supplement what people have actually been teaching in terms of text and so on. There I don't think it's going to be very useful because already the teacher is there". Though the technology has not made a place for itself yet it is still seen as a substitute for the existing methods.

### 8.2(b) ARGUMENTS AGAINST USE OF MEDIA

John suggested minimising use of media in education because the students have already enough of it from other sources and the academics, the teachers and the

institutions he believed should concentrate on the texts instead. Regarding the use of media he said "The students need to escape from the visual for long periods. I say 'escape from the visuals' because what has happened now is he (*the student*) is becoming excessively visual-oriented. I will give you the instance. You look at your magazines. Earlier on you never had magazines with so many pictures and advertisements. Wherever you go the visual is emphasised. The consequence is the impoverishment of the ability for abstract thinking. It is a genuine danger. We are thinking of man developing all his faculties, not just *one* faculty, and the ability to read something without any picture and enjoy. That's a delight man is entitled to and he shouldn't be denied this by a training which has been completely visually oriented. See what the telephone and the telegraph have done; letter writing has been ruined by this. See, no one stops to write a letter; you pick up a phone and talk".

The criticism and a rather strong one has been that teaching through computers may not help develop relational thinking (see end of section 6.4 above). Mukherjee had opined that this could become a good platform for content-based subjects but this may not be very good for analytical (i.e. interpretation based) subjects like literature. Even though this problem was beyond the scope of the present research there is some evidence to suggest the contrary. Schmidt (1992 : 9 - 10) says:

> The media used up to now have been essentially presentational media ... The dynamic activity, which is so important for teaching and learning, can so to speak, only be developed beside or after the media show, and the media cannot, as a rule, be influenced by the learner ... Only the computer ... has altered the situation fundamentally. It allows the coordination of different media, such as, for example, films, pictures, diagrams, texts, language and music to be regulated with ease, and above all, it makes possible active, or rather interactive doing and learning with media (p 9 - 10).

This aspect of teaching will be further strengthened by the Intelligent Tutoring Systems (ITS) quality of the computer. ITS "aim at developing the computer - based instruction to the learner's prior knowledge and his/her learning progress" (Tergan et. al. 1992 : 148) which has not been possible in classroom teaching. Relational and analytical thinking can develop through discussion and dialogue with the teacher and the taught but in a classroom situation this is not possible because of the class size and also because no teacher can have the patience to answer similar queries in a repetitive manner. The ITS can not only tailor the programme to the needs of the individual learner within no time but it will also be ready to answer the questions as many times as the learner asks it to answer.

Dinesh saw the use of simple visual means of communication as inappropriate in teaching to grown up, mature students. She said "Frankly if I take a picture and show it to them the students would think it's rather childish, looking at the picture ... It is the unimaginative student who needs pictures because I think if our students have been reading novels and poetry and English fiction and other things they do get the milieu and they do have an idea about it. One has to use more of one's imagination. How far do you need these pictures to boost your imagination?"

Similar ideas were expressed by Sinha. It might look childish because normally teachers don't bring in such artefacts into the classroom but overwhelming majority feel it is necessary. Those who have at some point or other been exposed to similar material feel it was very helpful. Research on the ageing and picture recall also says that "older adults showed no facilitation of recall for pictures whereas younger adults did" (Winograd et. al. 1982

: 75). The target learners this research aims at could be between 17 and 24 years of age who could benefit from visual stimuli.

Professor Kanwar was very happy with the programme but she specially mentioned two drawbacks about it. Her first observation was "How many computers are we going to provide?" This was not one of the questions this research was aiming to answer, so she went on to put her second observation. She said "What's going to happen to the job situation? There are already cutbacks in our country, resources and so on and so forth. So again these people [the administrators] will have a bigger excuse to cutback in people's positions and departments will be axed and so on because they will say we've got this kind of computer programme and we are going to have just one person to sort of handle this or deal with this and the rest can go ... You know when there is going to be large investments in machine[s] then obviously the administrator will think of throwing the teacher out and keeping the machine instead". Professor Kanwar is in the national open university of India. Her university relies on different means of communication for teaching and prides in possessing all the latest gadgets but it seems the university has not counselled the staff of the importance of modern technologies and the place technology is bound to occupy in our teaching sooner of later.

Dr. Sharma had doubts the programme may not be able to support as much information as the researcher was trying to put together. He said "It [*Technocriticism*] has certain limitations and if you hang too many pieces from this peg they may not hang together."

### 8.2(c) Analysis of sections 8.2(a) & 8.2(b)

To the return to the question of the efficacy of multimedia in teaching the non-native literary sign the research finding is on the positive side. Even though there are not many visual and auditory stimuli the respondents felt quite enthused about the possibility of finding means to explain the signs through pictures and sound. It was no less appealing that the platform could make available related information on the same platform.

From the beginning we were aware of the problem of non-availability of the resources and it was one of the subsidiary aims raised in section 0.1, that I would find if the Indian users have the equipment available and the required training. More on it has been said towards the end of this section. The empirical situation is that most target users do at present neither have the equipment nor the training. But Indian users are not in a much disadvantaged position in relation to most multimedia users. Multimedia is a recent addition to most situations and all users will have to learn to use this. All users of multimedia are in the same position - they all need equal training in reading multimedia lessons. Communicative potential of the component media will have to be reassessed and employed in an innovative manner.

The work force which is going to make the difference is the force of systems analysts. India has already caught up in this area and it is said:

> Since 1986, however, there has been a growing recognition that greater use of computers is necessary to step up the tempo of economic and social development ... computerisation has become a part of government policy" (Kohli 1994 : 32).

Most of the industrialised countries like the USA, the UK, Switzerland and others have one or the other major systems created by the Indians. One can hope sooner than later the benefits of these experts will also reach the Indian institutions and they will be utilised for teaching. Even though the scene on the software side is encouraging on the hardware it is not so encouraging. Machines are being assembled and the prices of the machines have come down but still it is quite out of the reach of the common man. In section 0.1.1 I had taken it upon myself to find the place of hypermedia in the Indian context. From the study we can say it could be adopted for all different uses i.e. classroom presentation through 'data-show' (some call it 'tablet') supplementary material or even independent study but only few users would be able to use it presently at home at their own pace. The medium would have immense use as reference material in libraries or teaching departments because institutions possess the hardware facilities.

In section 0.1 (p 3) the aspect of learner's pace was raised and it was thought the present research would give some insight to that. Hypermedia because of its engaging capacity, large database and interactivity will allure the users and extend the time to learners. They will be allowed to learn/use at their own pace but if it is used as a reference tool the pressure on the machine may be too much and individual users may not get enough time on the computer to follow their own pace.

## 8.3 COMMENTARY ON RESULTS

I have put the views of most of my respondents verbatim so that distortion due to the researcher's interpretation is at a minimum. However, someone may argue that the comments were made in a different context and that the statements are

misquotes. I have argued this all through the thesis that discourses can only be properly understood in a non-linear hypertext situation. The thesis is constrained by the linear form of presentation and also limited by the choice of length. From my empirical study I have drawn the following inferences:

(1) The technology is capable of being used with greater usefulness in densely populated than in less populated countries.

(2) Teachers are not well informed about the state of the art in the development of multimedia technology. The familiarity necessary for the use of an instrument with ease is missing. For a study on the teaching usefulness and getting proper responses the gadget will have to be used for some time by the teachers to get them over the initial hesitation with the technology and develop familiarity.

(3) Every member of the staff should have proper training so that he/she can suggest and demonstrate the benefits of using media and particularly hypermedia.

(4) In a couple of years when the ERNET project has started delivering goods the resources (both goods and human resources of which there will always be a short supply due to economic backwardness) can be used more fruitfully.

What needs to be brought home is that technology has arrived on the threshold; we only need to open the door and let it in.

## 8.4 LIMITATIONS OF THE RESEARCH

In the process of studying the aspects and issues of multimedia the research had to cover quite wide and at times diverse areas. All aspects had to be seen in the context of their suitability and relevance to India. The treatment of the themes could well have taken much greater space for a proper exploration. As this research is not a development of any previous work or follows any readily available line of research, in trying to formulate a guideline, it gropes in different directions for clues without the occasion of in-depth study.

Application of computers to different uses in business and education is fashionable but computers are also very fascinating in their own right. They tend to pull in experts and possess them. My experience not very long after I started the research was that experts who start dealing with computers devote more or most of their time in understanding and developing computer skills. They become more of a computer professional and lose contact with the parent discipline. My effort has been to keep a balance. I am not sure if the balance is a proper one. Perhaps more labour on *Technocriticism* would have made it more impressive but less time spent on it would have made the suggested model more perfect.

It will be apparent that throughout the thesis the emphasis has been only on the printed texts and the symbols created therein. We have also talked about the cultural specificity of visual symbols. With the multimedia texts the comprehension (i.e. phonetic and phonological aspects) of the audio sounds will also come in. Learners may need some training in listening comprehension. We are aware of the communicational problems that take place between speakers of English from two different parts of the world. This aspect was not taken up

because this will only be relevant when auditory inputs in the programme are increased.

I have said before that there was no previous research from which this research could take its direction or build its arguments but now that I sit to write the conclusions of the present research I would like to think how would I do it if I were given a chance again. The multimedia approach was thought of because the learner in open distance institutions is in a certain disadvantaged position compared to the classroom learner in reading literary texts. The classroom teacher along with the vibrant atmosphere of the class make the classroom a dynamic learning place.

If the research were to be taken up afresh I would like to concentrate more on the learners and their experiences. From the interviews of the teachers some of the areas which need more attention have come up but the areas are quite general. More specific areas could have been identified. For this we needed to concentrate on a text or texts written in a specific area at a certain period. It is not that this problem was not foreseen. To make the study specific the story was added but none of the respondents read the story.

Some research on media studies has highlighted the gains of reading texts with pictures or reading texts and seeing films and similar other differences in reading from a printed text and reading from a screen. Multimedia might be found a good platform to present the contents in a more appropriate and better referenced form but may not be a more appropriate platform for learning. I am not aware of any research on gains of Indian adults from media and technology. It was mentioned at the beginning of chapter 2 that vital educational decisions are taken by the Governments (i.e. ministries and authorities in the University Grants

Commission or the University Departments) which do not reflect either the needs of the learners or understanding of the 'actual' teachers. The Countrywide Classroom project has come under severe criticism (see Sharma 1989) because of poorly thought-out decisions. In spite of all such schemes no one seems to question these decisions. Further research into ideological implications of computer use in teaching, designing both in terms of content and form and also cost benefit aspects in the Indian context should be taken up.

Past research has shown us that response to media/technology differs from society to society. As discussed earlier some people thought that American children should learn more from the TV than children of any other nationality because they have more researched TV programmes (e.g. Sesame Street) than other children. But Salomon (1984b) reported that Israeli children learnt more from TV because they considered it hard and so invested more effort. Similar research will have to be conducted on Indian (urban and rural) learners with computers because their learning may differ because of the difference in exposure to computers.

Unlike TV, which was used mainly for entertainment before its academic application, the computer retains its academic and research aura. But again the implication of this aura will have to be examined in context because most of the application of computers in India has been for on-line information. The most common use of computers in India has been the repetitive enquiries that human 'enquiry counters' were unable to cope with. Such use might have changed the psychological notion of computers. The application for defence, space and communication research are known to only a microscopic minority in a vast country like India.

If the research is taken up again, instead of taking up a wide cross section I would prefer to take only two or three towns and only five or six universities. Selection of towns would be made in the similar scale like Delhi (metropolitan - maximum exposure to media and technology), Jodhpur (town - poor in terms of media exposure) and Jaipur (city - medium sized). I am suggesting this because the attitude and approach towards the teaching of English seemed to vary also according to the size of the town. Whereas on the one hand Professor Mukherjee, Dr. Gupta and Dr. Sharma (all from New Delhi) were extending the ideological points of view, on the other Professor Sharma (from Jodhpur) opined "ideology doesn't get into the act at all". Dr. Gupta was insisting 'the English idiom' should be aimed at in teaching. Professor Sharma's concern was to bring to the students' notice where the 'blessed country' America was on the map of the world. Even though it is difficult to make generalisations about India, these three towns would represent the major categories of towns.

## 8.5 MEDIATIONAL AND IDEOLOGICAL ISSUES

It has been highlighted at different points in the thesis that different media and producers of electronic media can explicitly and implicitly influence the programmes through their ideological positioning. In the context of India both the subject (i.e. English language and literature teaching) and the form (computer technology) can become topics of ideological debate. In the first part of chapter 2 these aspects were taken up. Both English teaching and computers are growing in spite of the ideological differences amongst group of supporters and opposers. Empirical evidence proves (see sections 2.2.3 and 2.2.4) their growth in India cannot be stopped.

This research had aspired to develop a hypermedia programme for teaching non-native literature to Indians. Through the medium of *Technocriticism* it fulfils that goal. In section 3.2 I have discussed the present state of research in relation to media in education. Available research concentrates on one or the other medium like TV as against radio, pictures in printed text and so on, but the issue of mediation in relation to hypermedia will have to examine the whole question once again. The issue can be 'whether hypermedia (as a combination of all available means of communication) can perform a better job than any one or possible combinations available?'. A picture that pops up on the computer screen on demand and again hides on demand may not have the same impact that a picture in a book but such issues (see section 3.2) can be examined only through further research where a hypermedia programme is used in a practical teaching situation and compared to another situation where the same topic is taught through other means or media. TV had put the visual aspect of communication at the centre of its mode of operation; audio (radio and tape recorders) had put the auditory stimulus at the centre but at present computers maintain the status of written text at the centre of communication like the printed text. This centrality will have to be examined to determine whether the process of communication, through computer screen is any better through the printed books. Hypermedia will have the added benefit of combining media that audio and visual media by themselves could not provide.

The impulse for this research came from the handicap the researcher, as an English teacher, faced in the classroom. It was thought multimedia could provide a context for the text. Bartle and White (1984) had suggested and White (1994) reiterated the three questions that need to be answered in terms of application of computer in teaching. The three questions they had suggested in determining appropriate use of computers were:

- What can a computer do more efficiently than a teacher/tutor?

- What can a computer do to extend and enrich existing practice?

- What can a computer enable a teacher/tutor to do that cannot be done by other means? (p 33)

I had been asking the same questions in regard to hypermedia. Hypermedia is capable of providing the context for the non-native literary symbols which a teacher alone is not capable of providing. TV had succeeded in presenting to the learners resources (in a more authentic form) that were otherwise not available. Poems read by authors themselves or native speakers of the target language can also be played as the learner reads the poem on the screen. The teacher or the learners themselves can make 'links' to as many resources as possible depending upon the inquisitiveness and demand of the user-learner. Laurillard (1993a) summing up the qualities of hypermedia rightly points out:

> The capacity of this type of system, and the ease of authoring the links between nodes has created great excitement in the world of educational media because it appears to solve the perpetual problem of how to create sufficient good quality courseware. Being so simple to use, teachers can create their own courseware very easily (p 121).

Hypermedia will perhaps provide a solution to the long standing demand of bringing the experts and resources to the learners who are deprived of it in the present situation. Through the response of my respondents I feel convinced *Technocriticism* is capable of performing functions that a teacher alone in the present situation in India is not able to perform. This will provide the context for the reading of non-native texts which is not available at present.

There can be so many arguments for not suggesting to use a computer and its monitor (the screen) for reading the original text, but the most important would be that it is not a very helpful format for the eyes. The eyes have to labour more than they do in reading from a printed text. This argument might become weaker in future when more friendly screens are produced and when children get adept at reading from a screen. The present generation of users is not accustomed to reading from the monitor and so it is not as convenient as printed text. This is particularly true with prose texts because they require hours of reading. Violation of copyright rules in punching original texts is another important reason for not making texts available through this format.

Approaches and attitudes towards both the above mentioned issues may change with time. Computer technology is growing fast and the computer screen may become more user friendly. A number of publishing houses (e.g. NCET) have relaxed copyright rules for academic and institutional use and we can only hope authors may relax copyright binding on use of their texts for pedagogic use through hypermedia. These are issues beyond the ambit of this research and may be taken up in further research.

Another very important negative aspect of teaching through hypermedia can be the isolation of the learner. In a traditional set up learners learn through mutual interaction. Hypermedia has two very positive points to counter this argument in the Indian context. Firstly, in less than ten years the open university system in India has grown to become one of the largest in the world. This is because most people cannot afford to go to the university because they have to take part in other jobs (domestic and agricultural) and in most areas women are not allowed to go out of the house or town to study. Through hypermedia better documented

(and at the same time cheap) study material can be made available. Secondly, women and more introvert learners can get into discussions with their peer group which otherwise they would not have access to. Fellow students can help look for appropriate material and proceed in the right direction because "The computer-based simulation is the first medium we have considered that is interactive, in the sense that it gives intrinsic feedback on students' actions" (Laurillard 1993b).

Unlike most softwares hypermedia authoring programmes have freed themselves of the fixed structures that the format programmers give them. Users can add new functions and make existing functions redundant. Technocriticism does not include all the functions either of HyperCard or of other multimedia programmes.

It was mentioned (in section 5.5.40 that the screen size of HyperCard was too small and it did not allow all the information that any multimedia programme should ideally display. But there are two encouraging developments which make us hopeful of this handicap being overcome soon. Hypertext programmes now being (e.g. Smalltalk) developed have much bigger screens and they can display much more information simultaneously than what HyperCard can do. The second encouraging development is the use of 'Tablets' which can transfer the information of the computer screen to the white-board. Users adept to reading from black-board may find this helpful.

Two more ideological questions emerge from the previous sections. The first question is that whatever dimensions added to multimedia the presentation will have to be made through the computer screen which is essentially a two-

dimensional presentation of three dimensional objects. This is an area which computer hardware engineers must consider and cater to.

The second issue is of access to computers. Can computers really grant access to all? What about those who do have difficulty reading and writing? What about those who do not have access to computer language? In section 6.3 I had described my target clientele and through my study of the availability of computers (presented in section 5.6.3) I had reasons to believe my target clientele could have access to computers if a provision for the use of computers in teaching is made. Literacy level generally in developing countries and particularly in India is quite low and access to everyone in the society at the moment is an impossible proposition. However, this is a larger question which this thesis does not intend to attempt. My target clientele will certainly have reading and writing skills. To use interactive programmes users can learn by doing and following instructions that the programme gives them. learning minimal computer handling techniques will enable them to use it.

## 8.6 SUMMARY

The research started with the aim of examining the possibility of adopting multimedia for teaching non-native literary symbols. The belief is reinforced that it is capable of becoming a powerful instrument in this area. The research which will have to precede the actual development of a truly hypermedia programme will have to determine the relationship between and use of different media.

Chapter 4 specially section 4.7. raises the question of the commonality of the contemporary creative arts. It is difficult to fully explain the idea of the 'communal art' or 'the common artistic endeavour' - what has more

appropriately been expressed as 'das gameisame Kunstwerk' in German. The notion of this idea has come to me through personal experience with the multimedia. But the idea gets reinforced by examples of artistic movements influencing different creative areas and examples of artists trying to express through different means. For example Expressionism influenced poets, musicians, architects and painters alike. We know that the Expressionist Kokoschka, basically a painter, wrote poems, plays and essays; Barlach expressed equally well through sculpture and plays; Kandinsky made paintings, graphics, poems and plays. A proper search for examples of such artists expressing through different forms from different periods and places would not be difficult. Similarly identifying common ideas expressed through different forms will also not be difficult. These exercises may prove very helpful in making multimedia programmes.

Even though hypermedia programmes are capable of holding large databases this is not an adequate platform to hold all information. An optimal list of areas will have to be made. Through reflections on studies and research on media, and via personal interviews with teachers in India the present research has attempted to begin to answer the question of whether hypermedia can perform the dual purpose of ascertaining context and providing an approach for teaching literature.

# BIBLIOGRAPHY OF WORKS CONSULTED

## Bibliography of works consulted

**Adam, John A.,** (1993). 'Applications, Implications', in *IEEE Spectrum. Vol.* 30 (March), pp. 24 - 31.

**Ambron, S. and K. Hooper.,** (1988). *Interactive Multimedia.* Washington : Microsoft Press.

**Anderson, Charles A.,** (1972). 'In Search of a Visual Rhetoric for Instructional Television', in *Audio Visual Communication Review (AVCR).* Vol. 20, no. 1 (Spring), pp. 43 - 63.

**Anderson, James A.,** (1966). 'More on the Equivalence of meaning Among Statements Presented Through Various Media', in *Audio Visual Communication Review (AVCR).* Vol. 14, no. 4, pp. 499 - 505.

**Andrews, Richard.,** (ed.). (1992a). *Rebirth of Rhetoric : Essays in Language, Culture and Education.* London : Routledge.

_____ (1992b). *An Exploration of Structural Relationships in Narrative and Argumentative Writing, with Particular Reference to the Work of Year 8 Students.* Unpublished PhD. Thesis. Hull : University of Hull.

_____ (ed.).(1989). *Narrative and Argument.* Milton Keynes : Open University Press.

**Andrews, Richard and Angela Fisher.,** (1991). *Narratives.* Cambridge : Cambridge University Press.

**Apter, M.J.,** (1968). *The New Technology of Education.* London : Macmillan.

**Arnheim, Rudolf.,** (1974). 'Virtues and Vices of the Visual Media' in D.R. Olson (ed.) 1974. Illinois : The National Society for the Study of Education. Pp. 180 - 210.

_____ (1970). *Visual Thinking.* London : Faber and Faber.

**Baggett, Patricia.,** (1979). 'Structurally Equivalent Stories in Movie and Text and the Effect of the Medium on Recall', in *Journal of Verbal Learning and Verbal Behaviour.* Vol. 18, pp. 333 - 356.

**Baggett, Patricia and Andrzej Ehrenfeucht.,** (1982). 'Information in Content Equivalent Movie and Text Stories', in *Discourse Processes.* Vol. 5, pp. 73 - 99.

**Barker, John and Richard N. Tucker.,** (eds.) (1990). *The Interactive Learning Revolution : Multimedia in Education and Training.* London : Kogan Page.

**Barthes, Roland.,** (1977, '90). *Image-Music-Text.*(Translated by Stephen Heath). London : Fontana Press.

_____ (1975) (tr. from *S/Z* Paris : 1970). *S/Z.* New York : Hill and Wang.

_____ (1964). *Elements of Semiology.* Translated by Annette Lavers and Colin Smith. New York : Hill and Wang.

**Bartle, P. and D.S. White.,** (1984). 'Careers Needs' in *TES* 4.11. '84.

**Beagles-Ross, J., and I. Gat.,** (1983). 'Specific impact of radio and television on children's story comprehension', in *Journal of Educational Psychology.* Vol. 75, no. 1, pp. 128 - 137.

**Benton, Michael.,** (1978a). 'How Authors Write . . . How Children Write' in *The First Two Rs : Essays on the processes of writing and reading in relation to the teaching of literature.* University of Southampton: Department of Education. Pp. 3 - 16.

_____ (1978b). 'How we Read Stories: Towards an understanding of recreative reading' in *The First Two Rs : Essays on the processes of writing and reading in relation to the teaching of literature.* University of Southampton: Department of Education. Pp. 17 - 33.

**Bernstein, Basil.,** (1971). *Class, Codes and Control : Theoretical Studies Towards a Sociology of Language.* Vol. 1. London : Routledge and Kegan Paul

**Blanchard, Marc Eli.,** (1982). 'Review article: 'Literary Semiotics, Stylistics, and Historical Models" (on Cesare Segre, *Structures and Time (Narration, Poetry, Models),* trans. by John Meddemmen. Chicago: University of Chicago Press, 1979) in *Semiotica.* Vol. 40 - 1/2, pp. 139 - 161.

**Brahmawong, Chaiyong.,** (1993). 'Development of multimedia-based distance learning packages', in Bruce Seriven, (et. al. eds.). Pp. 51 - 62.

**Brandsford, J.D., and M.K. Johnson.,** (1972). 'Contextual prerequisites for understanding : Some investigations of comprehension and recall', in *Journal of Verbal Learning and Verbal Behaviour.* Vol. 11, pp. 717 - 727.

**Broady, Sylvia.,** (1988). *Christmas Time.* BBC Radio Humberside. Thursday, December 22nd, 3.40. pm.

**Brontë, Emily.,** (1988). *Wuthering Heights.* London : Penguin.

**Brumfit, C.J.,** (1983). *Teaching Literature Overseas : Language Based Approaches.* Oxford : Pergamon Press.

**Bullen, Mark., G. Ronald Neufeld and Walter Uegama.,** (1993). 'The cultivation of critical thinking and independent learning in the undergraduate curriculum', in Bruce Seriven, (et. al. eds.) (1993). Pp. 68 - 72.

**Burke, Seán.,** (1992). *The Death and Return of the Author.* Edinburgh : Edinburgh University Press.

**Bush, Vannevar .,** ( July 1945). 'As We May See', in *Atlantic Monthly.* Pp. 101 - 108.

**Byram, Michael.,** (1989). *Cultural Studies in Foreign Language Studies.* Clevedon : Multilingual Matters.

**Cady, Michael and Margaret Harris.,** (1988). *The Masque of the Red Death : Hypertext Literature Lesson.* Microwrite. Rt. 4 Box 4124 LaPlata MD. 20646.

**Cain, William E.,** (1987)., 'Making Sense of Literary Theory : An Assessment of the Current Scene', in *Kenyon Review.* Vol. 9, no. 2, pp. 9 - 19.

**Carpenter, Edward Snow and Marshall McLuhan.,** (1960). *Explorations in Communication : An Anthology.* Boston (Mass.) : Beacon Press.

**Carroll, J.B.,** (ed.) (1956). *Language, Thought, and Reality : Selected Writings of Benjamin Lee Whorf.* New York, and Cambridge, Mass.

**Casagrande, Joseph B.,** (1963, 66 Second Edition). 'Language Universals in Anthropological Perspective', in Joseph H. Greenberg (ed.) (1963, 66 Second Edition). Cambridge (Mass.), The M.I.T. Press. Pp. 279 - 298.

**Cassidy, Michael F.,** (Summer 1982). 'Towards Integration : Education, Instructional Technology, and Semiotics', in *ECTJ*. Vol. 30, no. 4, pp. 75 - 89.

**Chandler, Daniel.,** (1992a). 'The Purpose of the Computer in the Classroom', in John Beynon and Hughie Mackay (ed.) *Technological Literacy and the Curriculum.* London : The Falmer Press. Pp. 171 - 196.

_____ (1992b). 'The Phenomenology of Writing by Hand', in *Intelligent Tutoring Media.* Vol. 3, no. 2/3, pp. 65 - 74.

**Chatman, Seymour.,** (1971). 'The Semantics of Style' in J. Kristeva et al. (ed.) (1971), *Essays in Semiotics.* Mouton : The Hague. Pp. 399 - 422.

**Clark, Eve V.,** (1973). 'Non-linguistic strategies and the acquisition of word meaning', in *Cognition.* Vol. 2, no. 2, pp. 161 - 182.

**Clark, Richard E.,** (Winter 1983) 'Reconsidering Research on Learning From Media', in *Review Of Educational Research.* Vol. 53, no. 4, pp. 445 - 459.

**Clarke, D.,** (April 1989). 'Communicative theory and its influence on materials production', in *Language Teaching* . Pp. 73 - 86.

**Classen, W.T.,** (1988). 'Structuring Diverse Types of Information in Hypertext: the Case of Biblical Information', in *On-line Information '88. Proceedings of the 12th International On-line Information Meeting.* Vol. 1, pp. 83 - 90. Oxford : Learned Information.

**Cole, Bernard.,** (March 1993). 'The technology framework', in *IEEE Spectrum,* pp. 32 - 39.

**Cook, Guy.,** (1989, '92). *Discourse.* Oxford : Oxford University Press.

**Cooper, Marilyn M., and Cynthia L. Selfe.,** (1990). 'Computer Conferences and Learning: Authority, Resistance, and Internally Persuasive Discourse', in *College English.* Vol. 52, no. 8 (December), pp. 847 - 869.

**Conklin, J.,** (September 1987). 'Hypertext : An Introduction and Survey', *IEEE Computer,* Vol. 20, pp. 17 - 41.

**Crane, Gregory.,** (July 1991). 'Hypermedia and the Study of Ancient Culture', in *IEEE Computer Graphics and Applications.* Pp. 45 - 51.

**Crystal, David.,** (1987). *The Cambridge Encyclopaedia of Language.* Cambridge : Cambridge University Press.

_____ (1985 2nd. Ed.). *Dictionary of Linguistics and Phonetics.* Oxford : Blackwell.

**Culler, Jonathan.,** (1983). *On Deconstruction : Theory and Criticism after Structuralism.* London : Routledge and Kegan Paul.

_____ (1981). *The Pursuit of Signs : Semiotics, Literature and Deconstruction.* London : Routledge and Kegan Paul.

_____ (1973). *Structuralist Poetics.* London : Routledge and Kegan Paul.

**Dangarembga, Tsitsi.,** (1988). *Nervous Conditions.* London : The Womens Press.

**Davies, Ivor K.,** (1981). *Instructional techniques.* New York : McGraw Hill

_____ (1976). *Objectives in Curriculum Design.* N.Y. : McGraw Hill.

_____ (1971). *The Management of Learning.* London : McGraw Hill.

**Deegan, Marilyn. Nicola Timbrell and Lorraine Warren.,** (1992). *Hypermedia in the Humanities.* Oxford : Oxford University Computing Service.

**Delany, Paul and George P. Landow.,** (1991). *Hypermedia and Literary Studies.* Cambridge (Mass.) : The M.I.T. Press.

*Dictionary of Education.* (1959). (3rd ed.).New York : McGraw-Hill Book Co.

**Doland, V.M.,** (1988). 'The Hermeneutics of Hypertext', in *On-line Information '88. Proceedings of the 12th International On-line Information Meeting.* Vol. 1, pp. 75 - 82. Oxford : Learned Information.

**Dowling, David.,** (1992). 'Authoring for English Literature in HyperCard : Where in the World is Blake's Tyger?', in *Hypermedia.* Vol. 4, no. 3, pp. 171 - 196.

**Durant, Alan, and Nigel Fabb.,** (1990). *Literary Studies in Action.* London : Routeldge.

**Durso, F.T., and M.K. Johnson.,** (1980). 'The effects of orienting tasks on recognition, recall, and modality confusion of pictures and words', in *Journal of Verbal Learning and Verbal Behaviour.* Vol. 19, pp. 416 - 429.

**Dwyer, Carol.,** (December 1993). 'Multimedia in Education', in *Educational Media International.* Vol. 30, no. 4, pp. 193 - 198.

**Eagleton, Terry.,** (1983). *Literary Theory.* Oxford : Blackwell.

**Eco, Umberto.,** (1979). *The Role of the Reader : Explorations in the Semiotics of Texts.* London : Indiana University Press.

_____ (1976). *A Theory of Semiotics.* London : Indiana University Press.

**Eliot, T.S.,** (1920, '69). 'Tradition and the Individual Talent', in *The Sacred Wood : Essays on Poetry and Criticism.* London : Metheun.

**Feustle Jr., Joseph A.,** (1990). 'Hypertext for the PC : the Rubén Darío Project', in Delany, Paul and George P. Landow (ed.) (1990). Pp. 299 - 313.

**Fish, Stanley.,** (1980). *Is There a Text in This Class ? : The Authority of Interpretive Communities.* Cambridge (Mass.) : Harvard University Press.

**Fishman, Joshua A.,** (1971). 'National Languages and Languages of Wider Communication in the Developing Nations', in *Language Use and Social Change: problems of Multilingualism with Special Reference to Eastern Africa* (Edited by W.H. Whiteley. London: Oxford University Press.

**Fleming, Malcolm.,** (1967). 'Classification and Analysis of Instructional Illustrations', in *Audio Visual Communication Review.* Vol. 15, no. 3, pp. 246 - 258.

**Fleming, Malcolm L. and Mehdi Sheikhian.,** (1972). 'Influence of Pictorial Attributes on Recognition Memory', in *Audio Visual Communication Review.* Vol. 20, no. 4 (Winter), pp. 423 - 441.

**Foa, Uriel G.,** (1964). 'Cross-Cultural Similarity and Difference in Interpersonal behaviour', in *Journal of Abnormal and Social Psychology.* Vol. 68, no. 5, pp. 517 - 522.

**Foucault, Michael.,** (1969 trans. 1972). *The Archaeology of Knowledge.* London : Travistock.

**Fusella, Patrizia.,** (1993). 'The Role of the Reader in I.A. Richard's Theory of and Teaching of Literature', in *Journal of Literary Semiotics.* Vol. 22, no. 1. pp. 76 - 85.

**Gagné, Robert M.,** (ed.) (1987). *Instructional Technology : Foundations.* Hillsdale : Lawrence Erlbaum Associates.

**Gagné, Robert M. and Leslie J. Briggs.,** (1974 '79). *Principles of Instructional Design.* New York : Rinehart and Winston.

**Golden, Joanne M. and Annyce Gerber.,** (1992). 'The Sign of a Tale : The Literary Symbol in a Classroom Context', in *Semiotica.* Vol. 89, no. 1/3, pp. 35 - 46.

**Goodman, D.,** (1988). *The Complete HyperCard Handbook. (2nd ed.).*Toronto : Bantam.

**Greenberg, J.H., (ed.)** (1963, '66 Second edition). *Universals of Language.* Cambridge (Mass.) : The M.I.T. Press.

**Greenberg, J.M.,** (1993). 'Integrating multimedia into a student's learning environment', in C. Latchen, J. Williamson and L. Henderson-Lancett (Eds.) *Interactive Multimedia : Practice and Promise.* London : Kogan Page.

**Griffith, Peter.,** (1987). *Literary Theory and English Teaching.* Milton Keynes : Open University Press.

**Guiraud, Pierre.,** (1971) (tr. by George Gross 1975). *Semiology.* London : Routledge and Kegan Paul.

**Halliday, M.A.K.,** (1978). *Language as Social Semiotics.* London : Edward Arnold.

**Halliwell, Stephen.,** (1986). 'Appendix 4 : Aristotle on Language', in *Aristotle's Poetics: A Study of Philosophical Criticism.* London : Duckworth.

**Harris, Wendell V.,** (Spring 1964). 'Style and the Twentieth-Century Novel', in *Western Humanities Review.* Vol. 18, no. 4, pp. 127 - 140.

**Harris, Zellig S.,** (1951). 'Discourse Analysis', in Jerry A. Fodor et al. (eds.) *The Structure of Language : Readings in the Philosophy of Language.* London : Prentice-Hall International. Inc. Pp. 355 - 383. Reprinted from Language. Vol. 28, pp. 1 - 30.

**Hart, B.,** (1991). *The Times Educational Supplement.* June 7.

**Harweg, Roland.,** (1968). 'Language and Music : an Immanent and Sign Theoretical Approach', in *Foundations of Language* .Vol. 4, pp. 270 - 281.

**Hawkridge, David., John Jaworski and Harry McMohan.,** (1990). *Computers in Third-World Schools : Examples, Experience and Issues.* London : Macmillan.

**Hawkridge, David G.,** (1973). 'Media Taxonomies and media selection', in *The Selection of Relevant Media/Methods for Defined Educational Purposes Within Distance Education.* Oslo : Home Study Council. Pp. 77 - 94.

**Heidt, Erhard U.,** (1975). 'In Search of A Media Taxonomy: Problems of Theory and Practice', in *British Journal of Educational Technology.* Vol. 6, no. 1 (January), pp. 4 - 23.

_____ (January 1977). 'Media and Learner Operations: The Problem of a Media Taxonomy Revisited', in *British Journal of Educational Technology.* Vol. 8, no. 1, pp. 11 - 26.

**Hjelmslev, L.,** (1943). *Prolegomena to a Theory of Language.* (revised English ed. 1961).Madison : Wisconsin Press.

**Huntley, John.,** (Fall 1991). 'Teaching Milton by Computer', in *Journal of Computing in Higher Education.* Vol. 3, no. 1, pp. 62 - 84.

**Iser, Wolfgang.,** (1976 trans. 1978). The Act of Reading : A Theory of Aesthetic Response. London : Routledge and Kegan Paul.

_____ (1972). 'The Reading Process : A Phenomenological Approach' in *New Literary History.* Vol. 3, no. 2, pp. 279 - 299.

**Jakobson, Roman.,** (1987). *Language in Literature.* (Edited by Krystyna Pomorska and Stephen Rudy). Cambridge (Mass.). The Belknap Press of Harvard University Press.

_____ (1960). 'Closing Statement : Linguistics and Poetics', in *Style in Language.* T.A. Sebeok (ed.). Cambridge : M.I.T. Press. (1960), pp. 350 - 377.

**Jefferson, Ann. and David Robey.,** (eds.). (1982). *Modern Literary Theory : A Comparative Introduction.* London : Batsford Academic and Educational Ltd.

**Jefferson, Ann.,** (1982). 'Russian Formalism', in Jefferson, Ann and David Robey (eds.) (1982). Pp. 16 - 37.

**Jonassen, David H.,** (1991). 'Hypertext as Instructional Design', in *Educational Technology Research and Development.* Vol. 39, no. 1, pp. 83 - 92.

_____ (1985). 'Learning Strategies : A New Education Technology', in *Programmed Learning and Educational Technology*. Vol. 22, no. 1, pp. 26 - 34

**Kachru, Braj B.,** (1986). *The Alchemy of English.* Delhi : Oxford University Press.

**Kaul, Suvir.,** (1993). 'The Indian Academic and Resistance to Theory' in Rajeswari Sunder Rajan (ed.) (1993). Pp. 207 - 228.

**Kinzie, Mable B. and Richard L. Berdel.,** (1990). 'Design and Use of Hypermedia Systems', in *Educational Technology Research and Development.* Vol. 38, no. 3, pp. 61 - 68.

**Kohli, Faqir C.,** (1994). 'Software : A recognizable export, at last', in *IEEE Spectrum.* Pp. 32 - 44.

**Korac, Nada.,** (Summer 1988). 'Functional, Cognitive and Semiotic factors in the Development of Audio-visual Comprehension', in *ECTJ.* Vol. 36, no. 2, pp. 67 - 91.

**Koul, B.N.,** (1992). 'English as Medium of Instruction in Distance Education - 1', in *Indian Journal of Open Learning.* Vol. 1, no. 1, pp. 37 - 43.

**Koul, B.N. and Charlotte Creed.,** (1993). 'English as Medium of Instruction in Distance Education - 3', in *Indian Journal of Open Learning.* Vol. 2, no. 1, pp. 47 - 54.

**Koumi, Jack.,** (1994). 'Media comparison and deployment: a practitioner's view', in *British Journal of Educational Technology.* Vol. 25, no. 1, pp. 41 - 57.

**Kozma, Robert B.,** (1991) 'Learning With Media', in *Review of Educational Research.* Vol. 6, no. 2 (Summer), pp. 179 - 211.

**Kristeva, Julia. et al.,** (ed.) (1971). *Essays in Semiotics.* Mouton : The Hague.

**Landow, George P.,** (1990). 'The Role of Hypermedia : Some Rules for Authors', in Deelany and Landow (ed.) (1990). pp. 81 - 104.

_____ (Spring 1989a). 'Course Assignment Using Hypertext : The Example of Intermedia', in *Journal of Research on Computing in Education* , pp. 349 - 364.

_____ (1989b) 'Hypertext in Literary Education, Criticism, and Scholarship', in *Computers and the Humanities* .Vol. 23, pp. 173 - 198.

**Landow, George P. and Paul Kahn.,** (1992). 'Where's the Hypertext? The Dickens Web as a System-Independent Hypertext', in *Proceedings of the ACM Conference on Hypertext*, Milano, 1992. Pp. 149 - 160.

**Laude, Jean.,** (1972). 'On the Analysis of Poems and Paintings', in *New Literary History.* Vol. III, no. 3, pp. 471 - 486.

**Laurillard, Diana.,** (1993a).'Hypermedia' in *Rethinking University Teaching : a framework for the effective use of educational technology.* London : Routledge. Pp. 120 - 130.

**Laurillard, Diana.,** (1993b).'Interactive media', in *Rethinking University Teaching : a framework for the effective use of educational technology.* London : Routledge. Pp. 131 - 147.

**Levie, W. Howard and Kenneth E. Dickie.,** (1973) 'The Analysis and Application of Media' ,in *The Second Handbook of Research on Teaching (ed.)* R.M. Trevers. Chicago: RandMcNalhy. Pp. 858 - 882.

**Levi-Strauss, Claude.,** (1963). *Structural Anthropology.* New York : Basic Books.

**Looms, Peter Olaf.,** (1990). 'Interactive multimedia in education', in Colin Latchem, John Williamson and Lexie Henderson-Lancett (eds.) *Interactive Multimedia : Practice and Promise.* Pp. 115 - 134.

**Macherey, P.,** (1966 trans. 1978). *A Theory of Literary Production.* London : Routledge and Kegan Page.

**Macherey, P. and E. Balibar.,** (1978). 'Literature as an Ideological Form ; Some Marxist Propositions', in *The Oxford Literary Review.* Vol. 3, pp. 4 - 12. Also in Pugh, A.K. et al. (eds.) (1980) *Language and Language Use.* London : Heinemann Educational.

**Mapp, Leslie.,** (1993). 'Introduction' in *envision.* P. Inside cover.

**McAleese, Ray and Catherine Green.,** (eds.). (1990). *Hypertext : State of the Art.* Oxford : Intellect.

**McLuhan, Marshall.,** (1964). *Understanding Media.* London : Routeldge and Kegan Paul.

_____ (1962). *The Gutenberg Galaxy : The Making of the Typographic Man.* London : Routledge and Kegan Paul.

_____ (1960). 'Classroom without walls', in Edward Snow Carpenter, and Marshall Mcluhan (eds.) (1960). Pp. 1 - 3.

**Megarry, Jacquetta.,** (1988). 'Hypertext and Compact Discs : The Challenge of Multimedia', in *British Journal of Educational Technology.* Vol. 19, no. 1, pp. 172 - 183.

**Meredith, Patrick.,** (1965). 'Towards a Taxonomy of Educational Media', in *Audio Visual Communication Review (AVCR).* Vol. 13, no. 4, pp. 374 - 384.

**Meringoff, L.,** (1982). 'What pictures can and can't do for children's story understanding'. Paper presented at the annual meeting of the American Educational Association, New York.

**Merwe, D.P. van der.,** (1988). 'Annotating Literary Texts with Hypertext', in *On-line Information '88. Proceedings of the 12th International On-line Meeting.* Vol. 1, pp. 239 - 247.

**Mishra, Arpita.,** (1992). *English in Cross-Cultural Communication.* New Delhi: Creative Publishers.

**Montgomery, Martin., Alan Durant, Nigel Fabb, Tom Furniss and Sara Mills.,** (1992). *Ways of Reading ; Advanced reading skills for students of English literature.* London: Routledge.

**Morgan, Thais E.,** (1985). 'Is There an Intertext in this Text? : Literary and Interdisciplinary Approaches to Intertexuality', in *American Journal of Semiotics.* Vol. 3, pp. 1 - 40.

**Morris, Charles W.,** (1939). 'Esthetics and the Theory of Signs', in *The Journal of Unified Science (Erkenntnis)* . Vol. 8, pp. 131 - 150.

Mukherjee, Meenakshi., (1993). 'Mapping a Territory : Notes on Framing a Course' in Rajeswari Sunder Rajan (ed.) (1993). Pp. 229 - 245.

**Narayan, R.K.,** (1961). *The Man-Eater of Malgudi.* London : Penguin.

**National Council for Educational Technology.** (1994a). *The Future Use of Information Technology in Guidance.* Coventry: NCET.

**National Council for Educational Technology.** (1994b). *Information Technology Works : Stimulate to Educate.* Coventry: NCET.

**Neurath, Paul.,** (1960). *The Radio Rural Forum - Report on the pilot project.* New Delhi : Government of India.

**Nihalani, Paroo., R.K. Tongue, Priya Hosali.** (1979). *Indian and British English : A Handbook of Usage and Pronunciation.* Delhi : Oxford University Press.

**Olgren, Christine.,** (1992). 'Modelling Active Learning in Print Materials', in From Vision to Reality : Providing Cost-Effective Quality Distance Education. *Report of the Proceedings of the Eighth Annual Conference on Distance Teaching and Learning.* August 5 - 7, 1992. Madison : Wisconsin. Madison : University of Wisconsin. Pp. 121 - 125.

**Olson, David R.,** (1977). 'From Utterance to Text : The Bias of Language in Speech and Writing', in *Harvard Educational Review.* Vol. 47, pp. 257 - 281.

_____ (ed.) (1974). *Media and Symbol : The Forms of Expression, Communication, and Education.* 73rd Yearbook of the National Society for the Study of Education. Chicago : University of Chicago Press.

**Park, Denise Cortis and J. Thomas Puglisi.,** (1985). 'Older Adults' Memory for the Color of Pictures and Words', in *Journal of Gerontology.* Vol. 40, no. 2, pp. 198 - 204.

**Patrick, John., Iona Michael and Angela Moore.,** (1986). *Designing for Learning : Some Guidelines.* Birmingham : Hopkins and Bailey.

**Pattison, Robert.,** (1982). *On Literacy : The Politics of the Word from Homer to the Age of Rock.* New York : Oxford University Press.

**Pedersen, Hans-Jørn.,** (December 1993). 'Multimedia - interactive media', in *Educational Media International.* Vol. 30, no. 4, pp. 219 - 220.

**Peeck, Joan.,** (1989). '15 Trends in the Delayed Use of Information from an Illustrated Text', in H. Mandl, J.R. Levin (Eds.) *Knowledge Acquisition from Text and Pictures.* North -Holland: Elsevier Science Publishers B.V. Pp. 263 - 277.

_____ (1987). 'Delayed Retention of Orally Presented Text with Pictorial Support', in *British Journal of Educational Psychology.* Vol. 57, pp. 412 - 416.

_____ (1974). 'Retention of pictorial and verbal content of a text with illustrations', in *Journal of Educational Psychology.* Vol. 66, pp. 880 - 888.

**Peeck, John and M.W. Jans.,** (1987). 'Delayed Retention of Orally Presented Text with Pictorial Support', in *British Journal of Educational Psychology.* Vol. 57, pp. 412 - 416.

**Perzylo, Lesa.,** (1993). 'The Application of Multimedia CD-ROMs in Schools', in *British Journal of Educational Technology.* Vol. 24, no. 3, pp. 191 - 197.

**Pike, Kenneth L.,** (1954). *Language in Relation to a Unified Theory of the Structure of Human Behaviour.* (In three volumes). Glendale (California) : Summer Institute of Linguistics.

**Poe, Edgar Allan.,** *The Masque of the Red Death.* Microwrite.Rt 4 Box 4124. LaPlata MD. 20646. Hypertext Lesson.

**Potter, Rosanne G.,** (1988). 'Literary Criticism and Literary Computing : The Difficulties of a Synthesis', in *Computers and the Humanities.* Vol. 22, pp. 91 - 97.

**Poythress, Vern S.,** (1982 a). 'A framework for discourse analysis : The components of a discourse, from a tagmemic viewpoint', in *Semiotica.* Vol. 38 - 3/4, pp. 277 - 298.

_____ (1982 b). 'Hierarchy in Discourse Analysis : A Review of Tagmemics', in *Semiotica* Vol. 40 - 1/2. Amsterdam : Mouton Publishers. Pp. 107 - 137.

**Preece, Fenny.,** (1990). 'Interactive multimedia in education', in Colin Latchem, John Williamson and Lexie Henderson-Lancett (Eds.) *Interactive Multimedia : Practice and Promise.* Pp. 135 - 150.

**Protherough, Robert.,** (1983). *Developing Response to Fiction.* Milton Keynes : The Open University.

**Radcliffe-Brown, A. R.,** (1952). 'Historical note on British Social Anthropology', in *American Anthropology.* Vol. 54, pp. 275 - 277.

**Rajan, Rajeswari Sunder.,** (1993). *The Lie of the Land : English Literary Studies in India.* Delhi : Oxford University Press.

**Richards, I.A.,** (1974). 'Powers and Limits of Sign', in David R. Olson (ed.) (1974) Media and Symbol : The Forms of Expression, Communication and Education. the Seventy-third Yearbook of the National Society for the Study of Education. Chicago : University of Chicago Press. Pp. 99 - 121.

_____ (1924 a). 'The Interaction of Words', in *The Language of Poetry.* (ed.) Allen Tate. Princeton : Princeton University Press. Pp. 65 - 87.

_____ (1924 b). *Principles of Literary Criticism.* London : Routledge and Kegan Page.

**Ricoeur, Paul.,** (1981). *Hermeneutics and the Human Sciences : Essays on Language Action and Interpretation* (Edited, translated and introduced by John B. Thompson). Cambridge : Cambridge University Press.

_____ (1973). 'Creativity in language : Words, Polysemy and Metaphor', in *Philosophy Today.* Vol. 17, pp. 97 - 111.

**Riffaterre, Michael.,** (1985). 'The Interpretant in Literary Semiotics', in *American Journal of Semiotics.* Vol. 3, no. 4, pp. 41 - 55.

_____ (1983). 'Hermeneutic Models', in *Poetics Today.* Vol. 4, no. 1, pp. 7 - 16.

_____ (1960). 'Stylistic Content', in *Word.* Vol. 16, pp. 207 - 218.

_____ (1959). 'Criteria for Style Analysis', in *Word.* Vol. 15, pp. 154 - 174.

**Robey, David.,** (ed.). (1973). *Structuralism : An Introduction.* Oxford : Clarendon Press.

**Rosenblatt, Louise M.** (1968 Revised Edition). *Literature as Exploration.* New York: Noble and Noble. First published 1938, New York: Appleton Century.

_____ (1964). 'The Poem as Event" in *College English.* Vol. 26, pp. 123 128.

_____ (1969). 'Towards a Transactional Theory of Reading' in *Journal of Reading Behaviour.* Vol. 1, no. 1, pp. 31 - 49.

**Rowntree, Derek.,** (1986, 1990 Rev. ed.) *Teaching Through Self Instruction : How to Develop Open Learning Material.* London : Kogan Page.

**Salomon, Gavriel.,** (1984a). 'What is Learned and How It Is Taught : The Interaction between Media, Message, Task and Learner', in D.R. Olson (ed.) (1984). Pp. 383 - 406.

_____ (1984b). 'Television is "easy" and print is "tough" ', in *Journal of Educational Psychology.* Vol. 76, pp. 647 - 658.

_____ (1979). *Interaction of Media, Cognition, and Learning.* San Francisco : Jossey-Bass Publishers.

_____ (1974). 'What is learned and how is it Taught : The interaction between Media, Message, Task and Learner', in D.R. Oslon (ed.) (1974). Pp. 383 - 406.

_____ (1972). 'Can We Affect Cognition Skills Through Visual Media? An Hypothesis and Initial Findings', in *Audio Visual Communication Review.* Vol. 20, no. 4 (Winter), pp. 401 - 422.

_____ (1970). 'What Does it do to Johnny?; A Cognitive-Functionalist View of Research on Media', in *Viewpoints. Bulletin of the School of Education, Indiana University.* Vol. 5, pp. 33 - 62.

**Salomon, G., and Leigh, T.,** (1984). 'Predispositions about learning from print and television', in *Journal of Communication.* Vol. 34, pp. 119 - 135.

**Schmidt, Hermann.,** (1992). 'The Series "Multimedia Learning in Vocational Training" ', in Tergan, Sigmar-Olaf et. al. (eds.) (1992). Pp. 9 - 10.

**Singh, Amrik.,** (1993). 'The Universities of India', in *Commonwealth Universities Yearbook.* Vol. 2, pp. 1009 - 1015. London : Association of Commonwealth Universities.

**Saussure, Ferdinand De.,** (1983). *Course in General Linguistics.* Edited by C. Bally and A. Sechehaye with the collaboration of A. Reidlinger (First published in French in 1916 by Lausanne, Payot). Translated and annotated by Roy Harris. London : Duckworth.

**Sayce, R. A.,** (1957). 'Literature and Language', in *Essays in Criticism.* Vol. VII, no. 2 (April), pp. 119 - 133.

**Scholes, Robert.,** (1974). *Structuralism in Literature : An Introduction.* New Haven : Yale University Press.

**Schramm, Wilbur.,** (1977). *Big Media Little Media : Tools and Technologies for Instruction.* London : Sage Publications.

**Selfe, Cynthia L. and Billie J. Wahlstrom.,** (1988). Computers and Writing : Casting a Border Net with Theory and Research', in *Computers and the Humanities.* Vol. 22, pp. 57 - 66.

**Selinker, Larry.,** (August 1972). 'Interlanguage', in *IRAL.* Vol.. X/3, pp. 209 - 231.

**Serge, Cesare.,** (1973) (trans. by John Meddemmen). *Semiotics and Literary Criticism.* Mouton : The Hague.

**Seriven, Bruce., Roy Lundin and Yoni Ryan.,** (eds.) (1993). *Distance Education for the Twenty-First Century : Selected papers from the 16th World Conference of the International Council for Distance Education.* Thailand, November 1992. Queensland : Queensland University of Technology

**Sharma, Amiya Bhushan.,** (1992). *The Growth and Evolution of Classical Rhetoric : Self Instructional Material.* Delhi : Ajanta Publications.

**Sharma, Chandra Bhushan.,** (1989). *Language Teaching Through Television : The Case of English in India.* Unpublished M.Phil. Dissertation. N. Delhi : Jawaharlal Nehru University.

**Shepard, Roger N.,** (1967). 'Recognition Memory for Words, Sentences, and Pictures', in *Journal of Verbal Learning and Verbal Behaviour.* Vol. 6, pp. 156 - 163.

**Shotton, Richard.,** (1991) (March). 'Culture Studies in Foreign Language Studies', in *Language Learning Journal*. No. 3, pp. 68 - 70

**Simpson, A.,** (1989). 'Navigation in Hypertext : Design Issues', in *On-line Information '89. Proceedings of the 12th International On-line Information meeting.* Vol. 1, pp. 83 - 90. Oxford : Learned Information.

**Skinner, B.F.,** (1968). *The Technology of Teaching.* New York : Apple-Century Crofts.

**Slatin, John M.,** (December 1990). 'Reading Hypertext: Order and Coherence in a New Medium', in *College English.* Vol. 52, no. 8, pp. 870 - 883.

**Snow, Richard E. and Gavriel Salomon.,** (1968). 'Aptitudes and Instructional Media', in *Audio Visual Communication Review.* Vol. 16, no. 4, pp. 341 - 357.

**Spencer, Ken.,** (1988). *The Psychology of Educational Technology and Instructional Media.* London : Routledge and Kegan Paul.

**Spivak, Gayatri Chakravorty.,** (1990) 'Postmarked Calcutta, India', in *The Post-Colonial Critic: Interviews, Strategies, Dialogues.* Edited by Sarah Harasyam. New York: Routledge. Pp. 75 - 94. [Interview done by Angela Ingram and first published in *Women's Writing in Exile,* edited by Mary Lynn Broe and Angela Ingram (Chapel Hill: University of North Carolina Press, 1989)].

_____ (1987). 'A Literary Representation of the Subaltern : Mahasweta Devi's Standayani', in Ranjit Guha (ed.) *Subaltern Studies V : Writings on South Asian History and Society.* N. Delhi : Oxford University Press.

**Steadman, S., C. Nash and M. Eraut.,** (1992). *CD-ROM in Schools Scheme : Evaluation Report*. Coventry : NCET.

**Stoneman, Patsy. (1992).,** 'Reading Across Media: the case of Wuthering Heights', in Richard Andrews (ed.). (1992). *Rebirth of Rhetoric: Essays in Language, Culture and Education.* London: Routledge. Pp. 172 - 196.

**Stones, E.,** (1988). *An Introduction to Educational Psychology.* London : Metheuen and Co. Ltd.

**Sutherland, Kathryn.,** (1990). 'A method for the analysis of the Structure of Narrative Texts', in *Literary and Linguistic Computing.* Vol. 5, no. 3, pp. 221 - 225.

**Tergan, Sigmar-Olaf et. al.** (Eds.) (1992). *Open Learning and Distance Education with Computer Support.* Nürnberg : B.W. Bildung und Wissen Verlag und Software GmbH.

_____ (1992). 'Computer-Based Systems for Open Learning : State of the Art', in Tergan, Sigmar-Olaf et. al. (Eds.). Pp. 97 - 195.

**Todorov, Tzvetan.,** (1969). 'Structural Analysis of Literature', in *Novel : A forum on Fiction.* Vol. 3, no. 1, pp. 70 - 76.

**Toolan, Michael J.,** (1988). *Narratives : A Critical Linguistic Introduction.* London : Routledge.

**Tosti, Donald T. and John R. Ball.,** (1969). 'A Behavioural Approach to Instructional Design and Media Selection', in *Audio Visual Communication Review.* Vol. 17, no. 1, pp. 5 - 25.

**Tseëlon, Efrat.,** (1992). 'Fashion and the Significance of Social Order', in *Semiotica.* Vol. 91-1/2, pp. 1 - 14.

**Tucker, Richard N.,** (1990). 'On InterActivity and Open Learning', in Barker, John and R.N. Tucker (ed.) (1990). Pp. 25 - 33.

**Ullman, Stephen.,** (1964). *Language and Style.* Oxford : Basil Blackwell.

**Valdes, Joyce M.,** (ed.). (1986). *Culture Bound.* Cambridge : Cambridge University Press.

**Volosinov, V.N.,** (1929 trans. 1973). *Marxism and the Philosophy of Language.* London : Seminar Press.

**Vygotsky, L.S.,** (1962, 1968) *Thought and Language.* Cambridge (Mass.) : The M.I.T. Press.

**Waugh, Butler.,** (1966). 'Structural Analysis in Literature and Folklore', in *Western Folklore* no. 25 pp. 153-164.

**Wellek, Rene and Austin Warren.,** (1949-'61). *Theory of Literature.* London : Jonathan Cape.

**Westman, A.S.,** (1975). 'Effect of a retention interval on recall of presentation mode', in *Perceptual and Motor Skills.* Vol. 40, pp. 127 - 130.

**Wheelwright, Philip.,** (1940). 'On the Semantics of Poetry', in *Kenyon Review.* Vol. II, pp. 263 - 283

**White, D.S.,** (1994). 'The use of IT in the light of changing learning styles, the curriculum and professional practice in careers education and guidance' in NCET (1994) *The Future use of Informational Technology in Guidance.* Pp. 31 - 38.

**Wiggins, Lyna L. and Michael J. Shiffer.,** (1990). 'Planning With Hypermedia : Combining Text, Graphics, Sound and Video', in *APA Journal.* Pp. 226 - 235.

**Willis, Barry.,** (1993). 'Improving the Multi-Cultural Relevance of Distance Education Programmes', in *Indian Journal of Open Learning.* Vol. 2, no. 1, pp. 29 - 31.

**Willows, D. M. and H.A. Houghton.,** (1987). *The Psychology of Illustration Volume 1 : Basic Research.* N.Y. : Springer-Verlag.

**Winograd, Eugene., Anderson D. smith and Elliott W. Simon.,** (1982). 'Ageing and the Picture Superiority Effect in recall', in *Journal of Gerontology.* Vol. 37, no. 1, pp. 70 - 75.

**Wittich, Walter A. and Charles F. Scheller.,** (1973, 5th Edition). *Instructional Technology : Its Nature and Use.* New York : Harper and Row.

**Yankelovich, Nicole, George P. Landow and David Cody.,** (Spring/Summer 1987). 'Creating Hypermedia Materials for English Literature Students', in *SIGUE Outlook.* Pp. 12 - 25.

# APPENDICES

CONTENTS

## Appendix 1

### SOME HELPFUL INSTRUCTIONS FOR USING '*TECHNOCRITICISM*'

Put the disk *'Technocriticism'* in any MACINTOSH computer which has HYPERCARD installed on it. Technocriticism is developed on HyperCard 2.1. To be able to read Technocriticism you must have HyperCard 2.1 installed on your computer* . Double click (i.e. press the mouse button twice in quick succession) on the icon 'Technocriticism'. You will see three icons appear on the screen. They will be 'Technocriticism' 'Cat in the Rain' and 'Test'. Again double click on the icon 'Technocriticism'. You will see before you a screen appear welcoming you to the programme. Wait for some time and let this screen disappear and another screen appear. Click anywhere on this (the second screen) and you will get the response from the programme directing you to make the appropriate action. Move your cursor around on the screen and click to explore for any hidden texts. To go forward or backward click on the arrow (or hand pointer) pointing towards right or left.

Before you actually start browsing the programme there are a few questions provided which you'll have to answer otherwise the next screen won't appear. Please give some time to answer them.

On some of the screens you will find small rectangles with some word like Prose or Further Reading written inside it. If you double click on any one of these some more explanatory text will appear on the screen. Some of the words have been underlined. They denote that there is some explanation provided underneath. Click on them if you want to see what explanation they

* For the convenience of the examiners copy of HyperCard has been provided on the enclosed disk.

have to provide. All texts with explanations have not been underlined so it may be a good idea to click even those texts which have not been underlined to find if there is something underneath. If you click once on the explanatory text appearing on the screen it will close and the original screen (from where you went there) will appear. Sometimes you may have to find similar rectangles to click on them to get back. Sometimes you also have been provided with the icon  . If you want to get back to from where you had come click once on it and you will go back to the last screen.

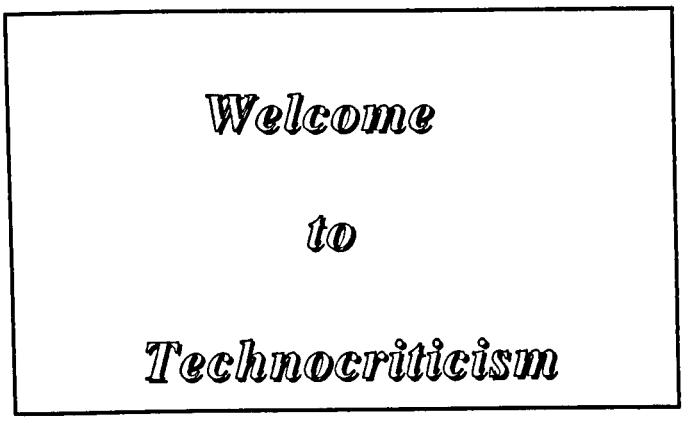
Wherever you see a screen with  sign on the right hand side think that it is a scrolling field and you can look at more text by clicking at the top or bottom arrow.

The 'buttons' Further Reading provide you references to other books and articles on the topic you are looking at. You may like to click on them to see the list.

Your comments: Accompanying a few screens you will find a small screen towards the bottom with the same sign as shown above. At the top of the screen is written "first write your name and then your comments in the column below". If you want to add your opinion take the cursor inside this screen click once and write whatever you want to. Once you have finished writing click anywhere else on the screen and start browsing again. This will remain there for the users viewing after you to read and respond to.

## Appendix 2+

Card 1*

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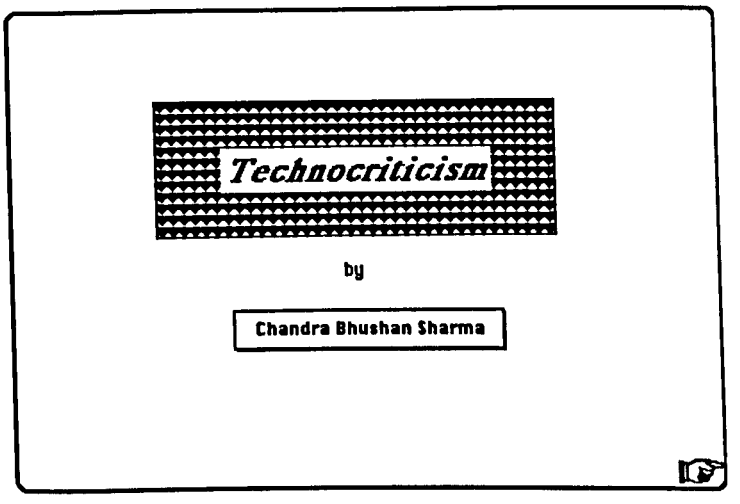


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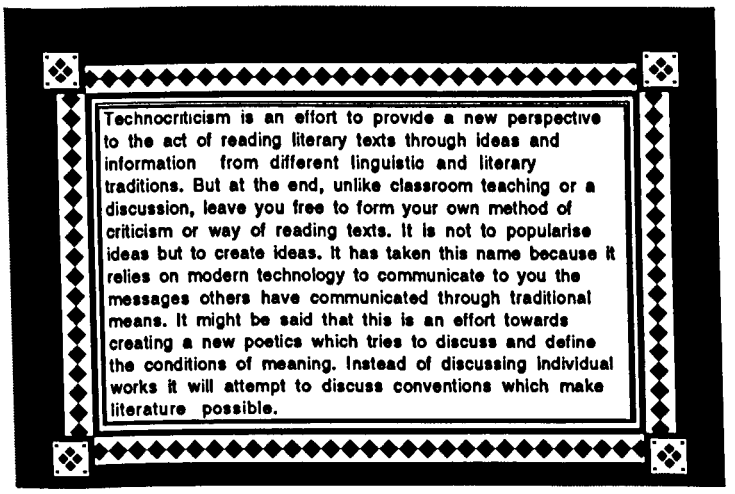


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+ Helpful notes to * marked cards have been provided at the end of Appendix 2

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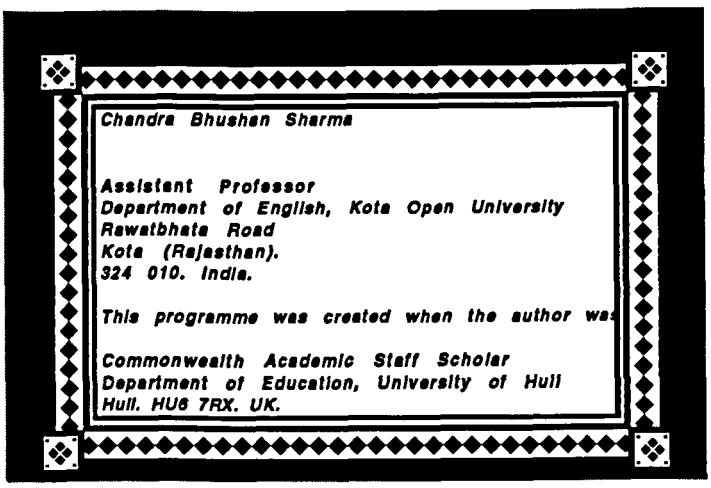


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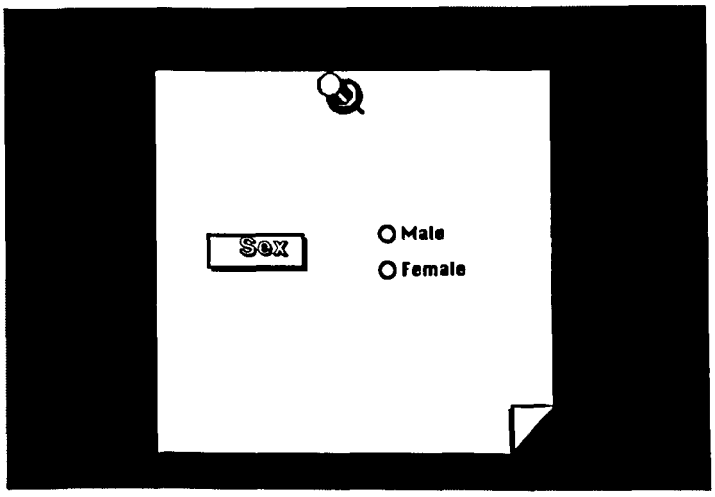


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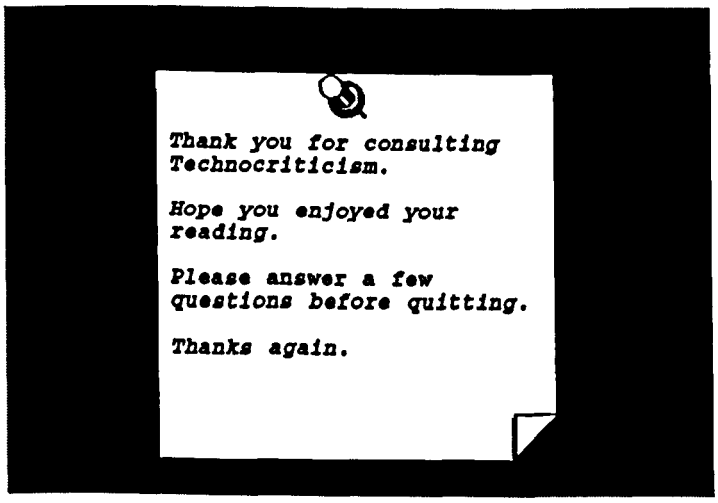

Card 7*

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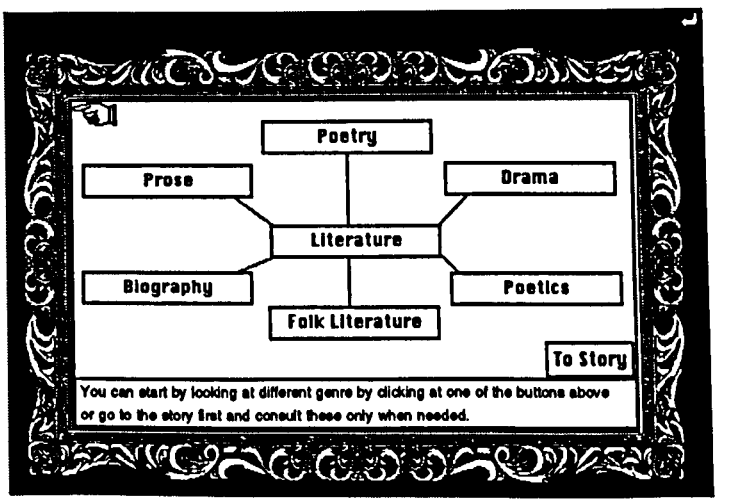
age: 20 - 40,
profession: other,
Computer Use: Frequently,
Interactivity: very,
MoreHypertext: Yes,
Exit Time: 5:20 pm.
Entry time 6:27 pm
Amiya Bhushan Sharma
sex: male,
age: above 40,
profession: teacher,
Stream: DistanceEducation,
Compurter Use: sometimes,
Interactivity: Moderate,
MoreHypertext: Yes,
Exit Time: 8:14 pm.
Entry time 3:11 pm
Prof Jasbir Jain

Card 8*

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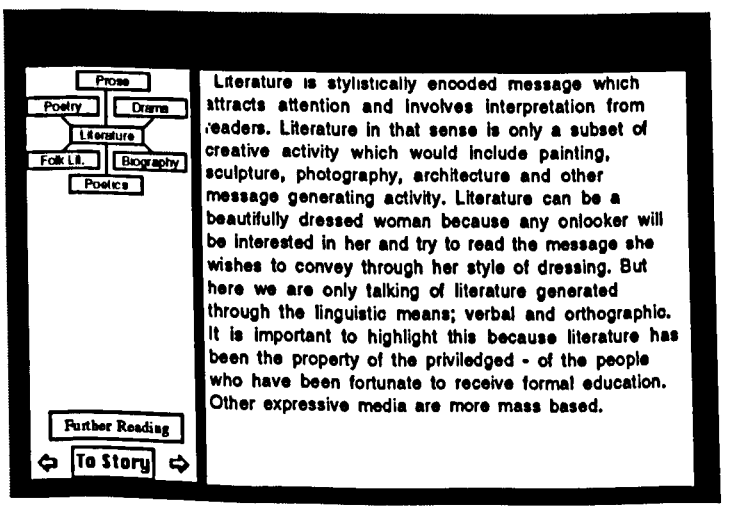

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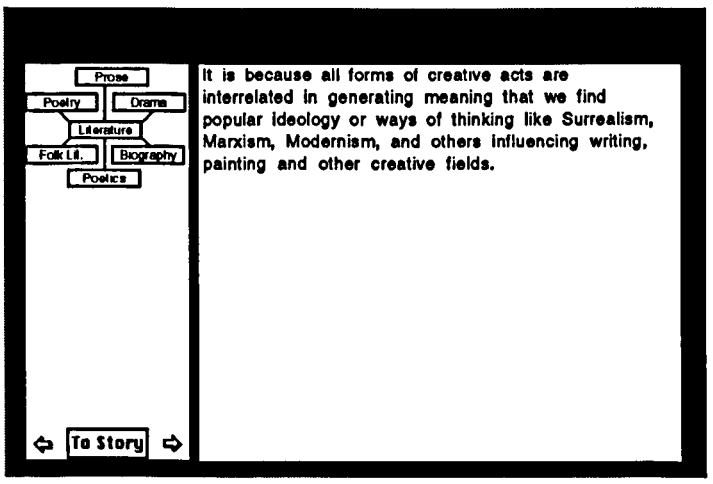


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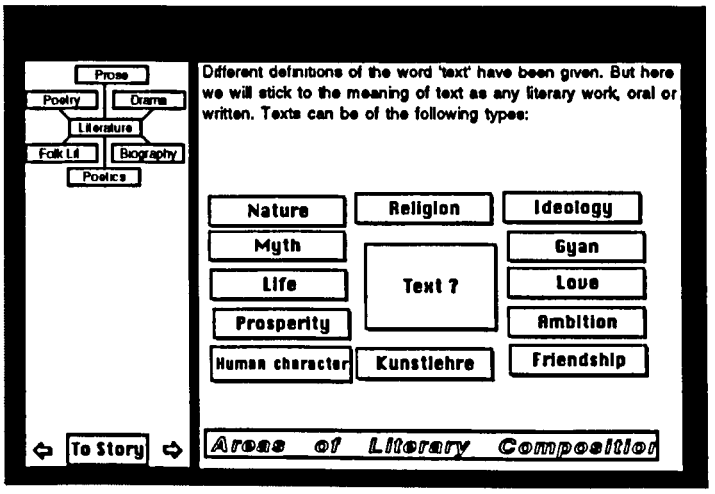


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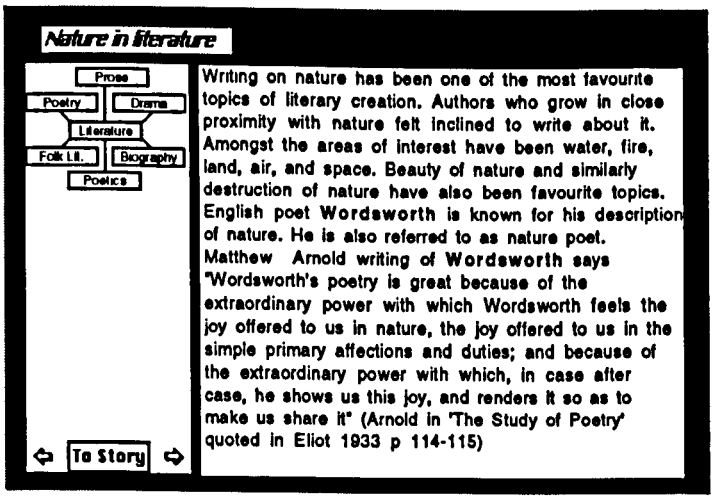

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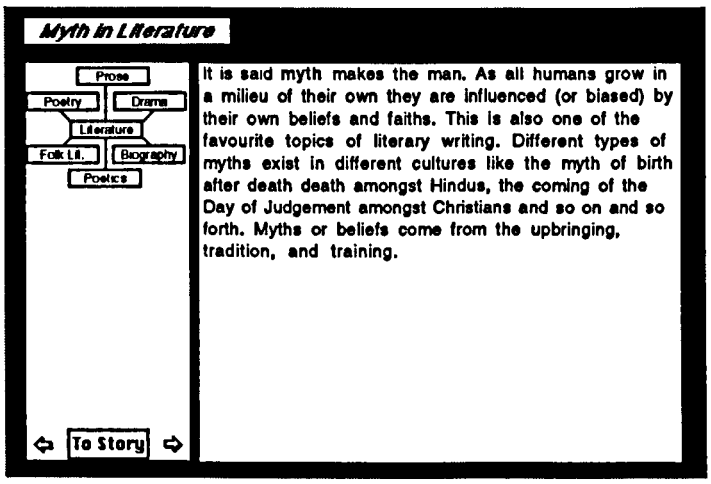


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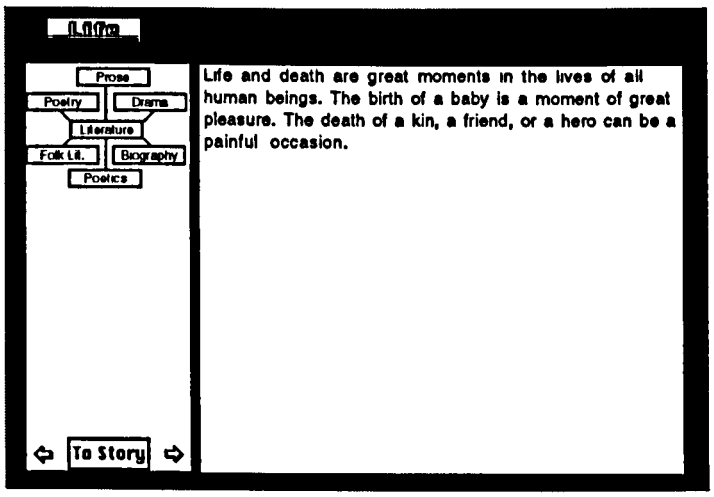


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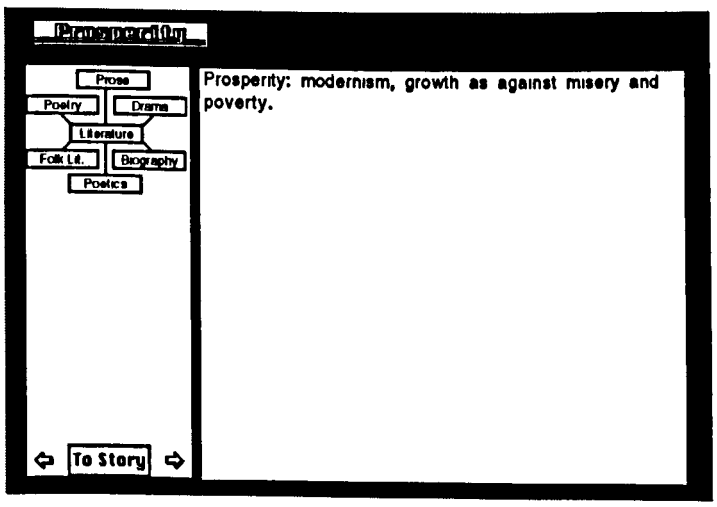

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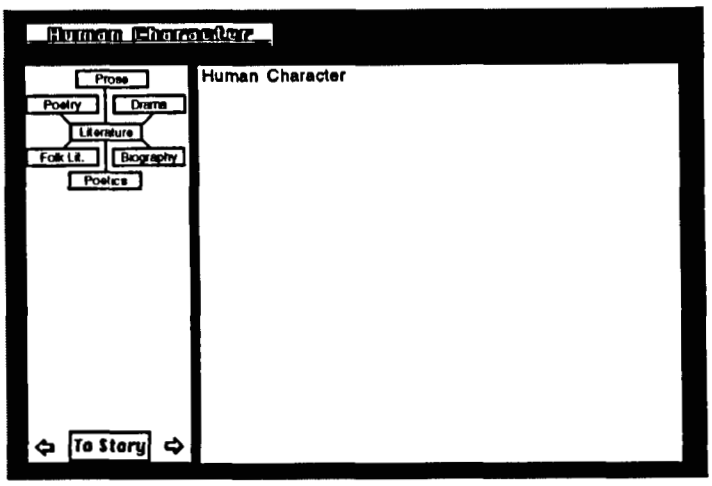


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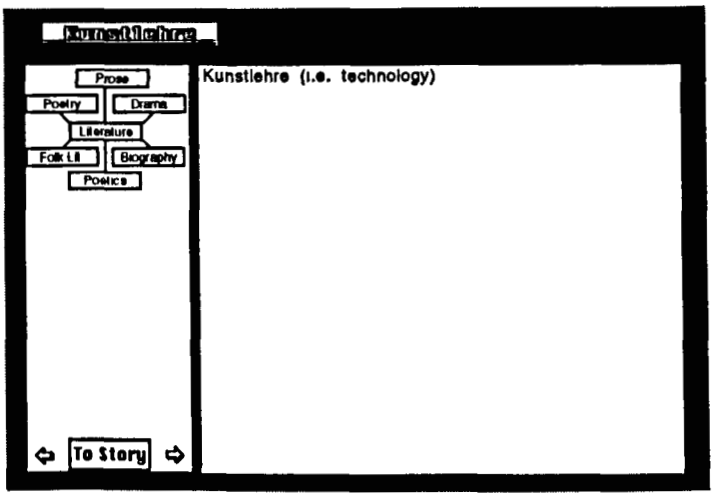


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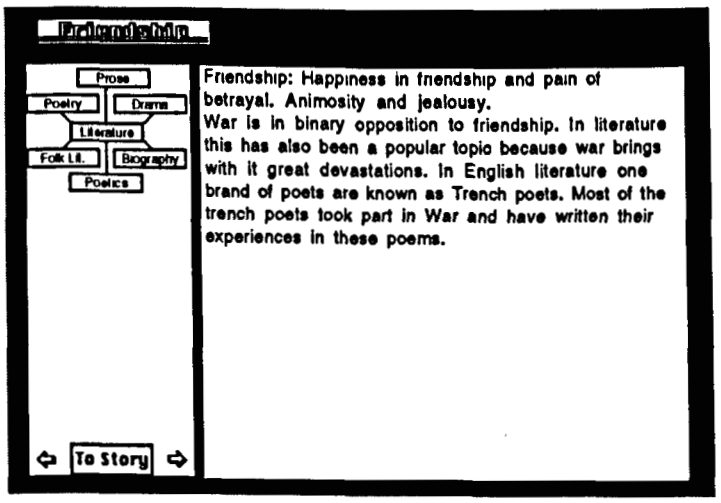

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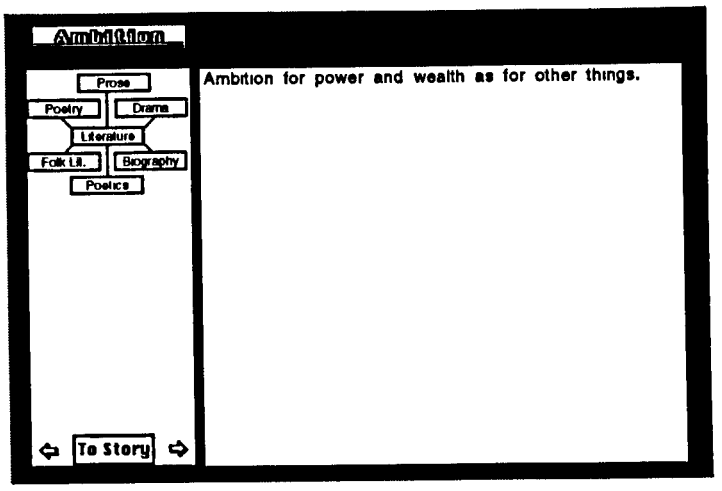


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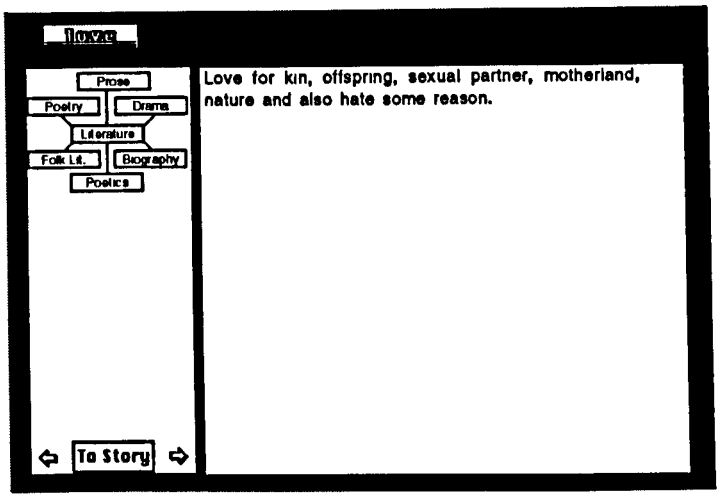


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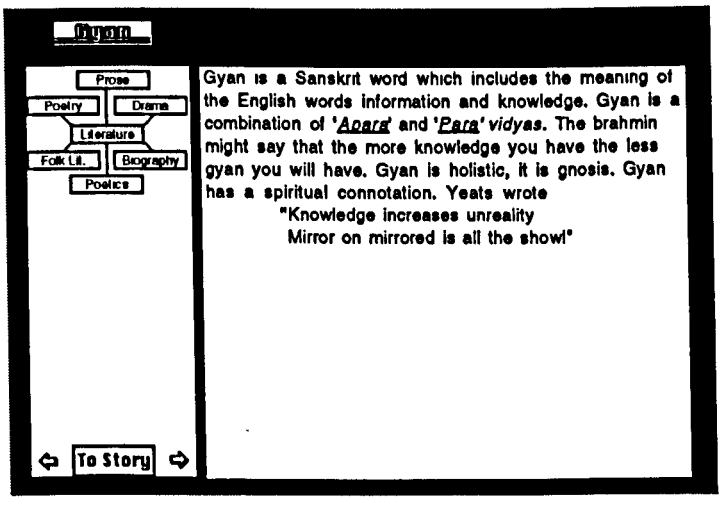

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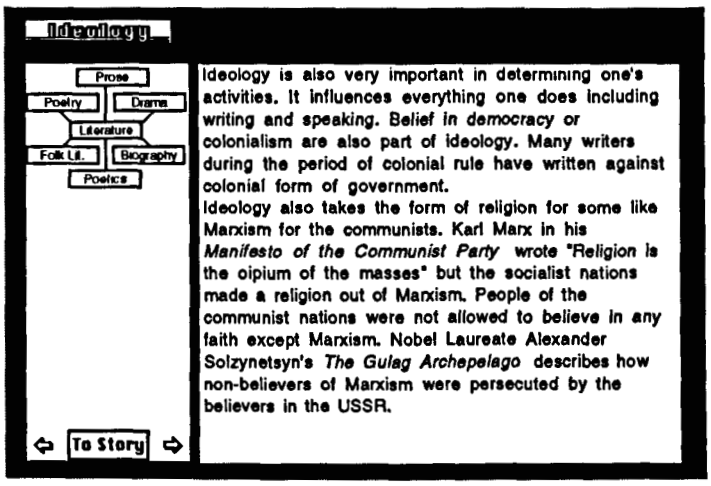


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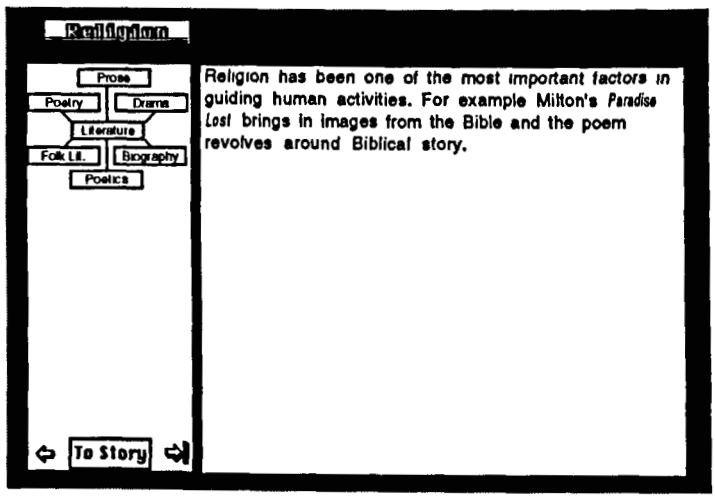


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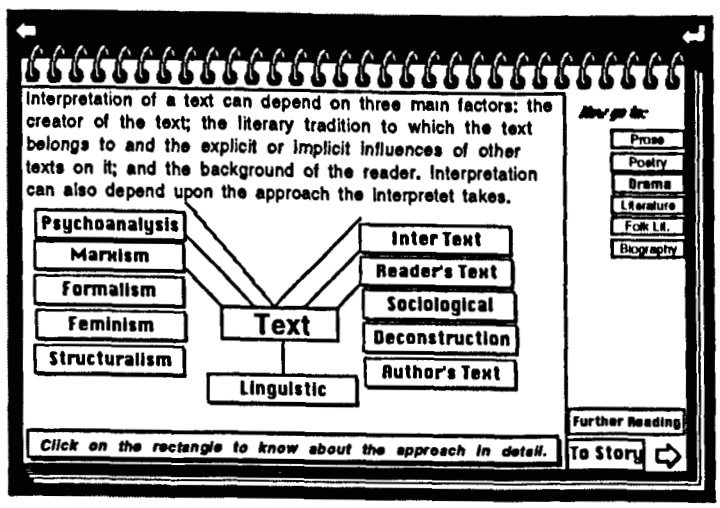

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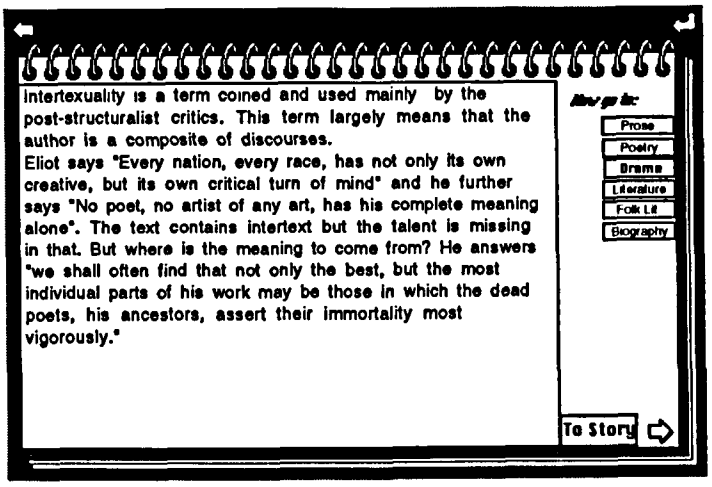


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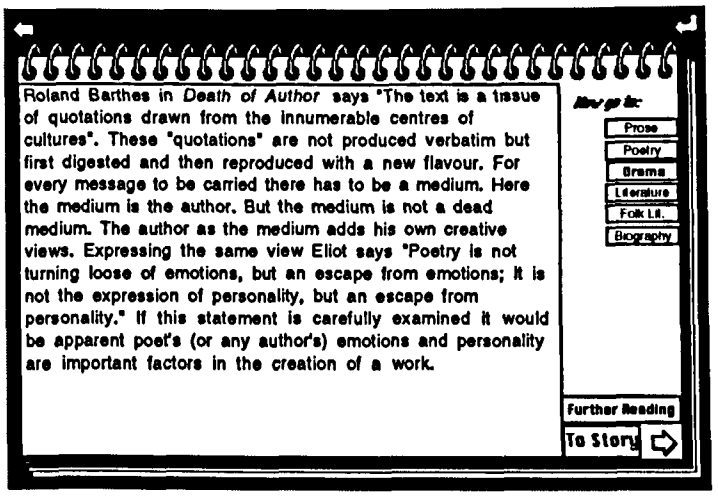


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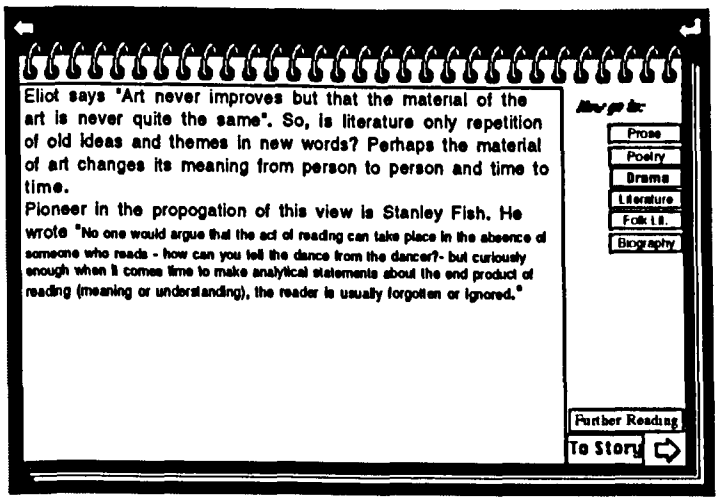

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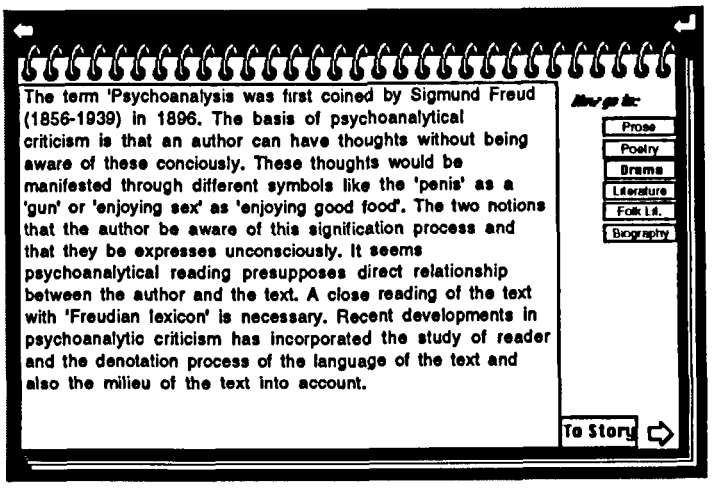


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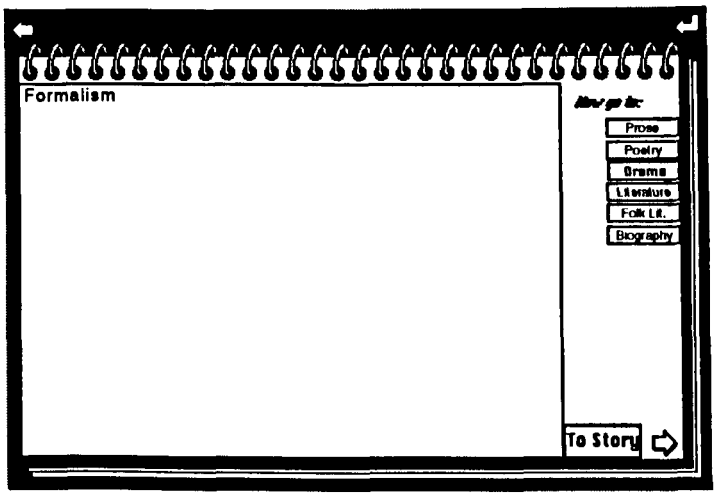


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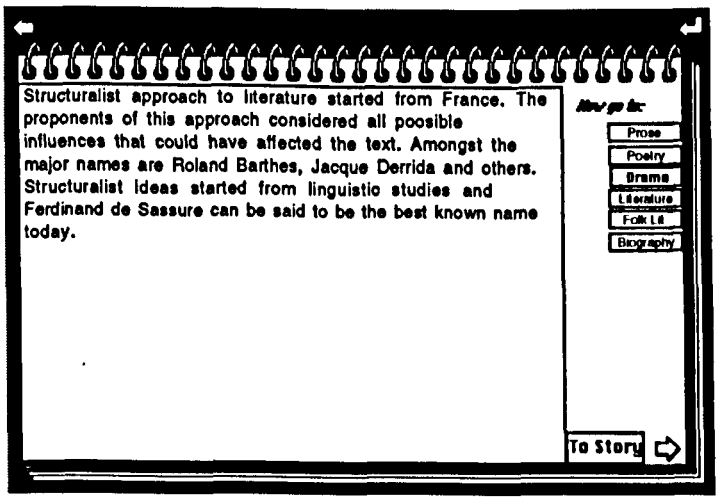

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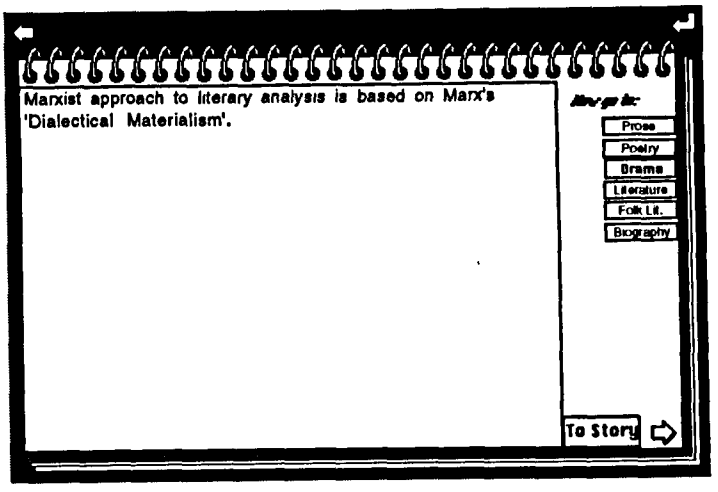


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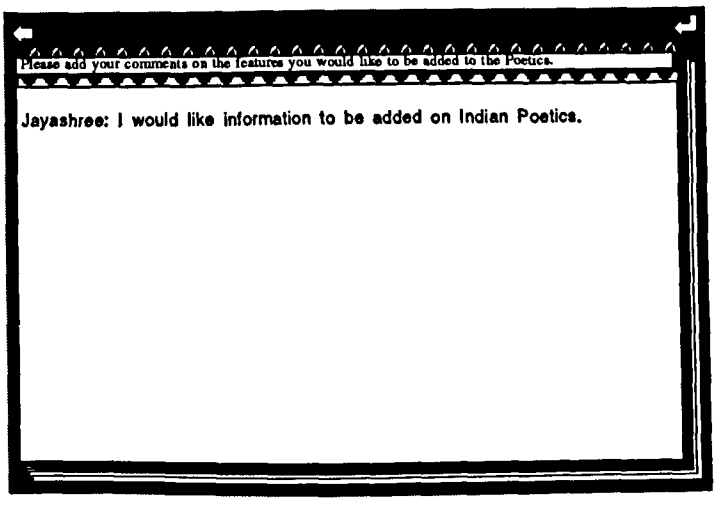


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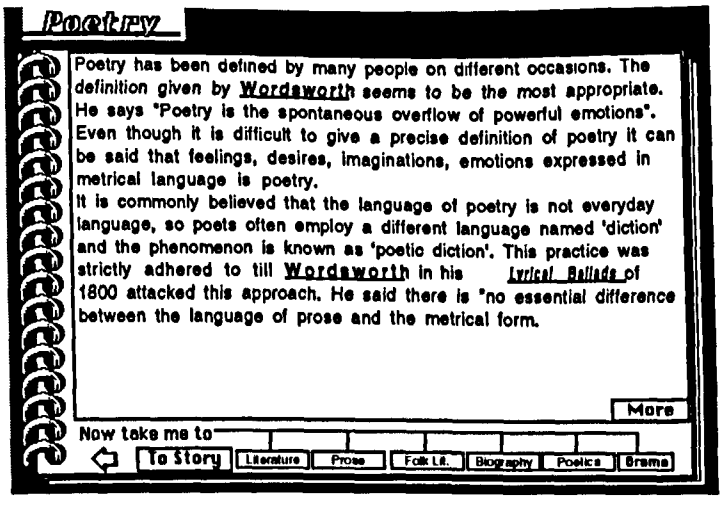

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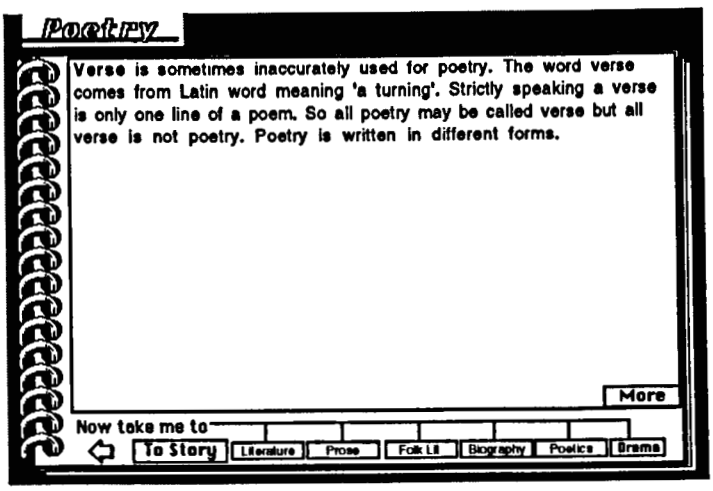


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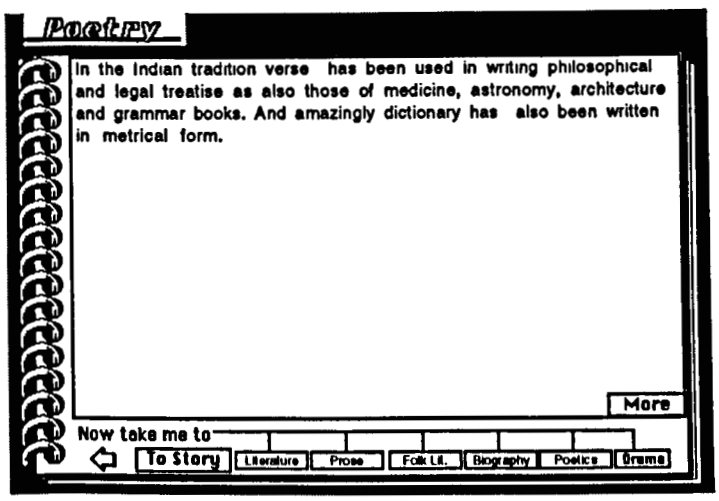


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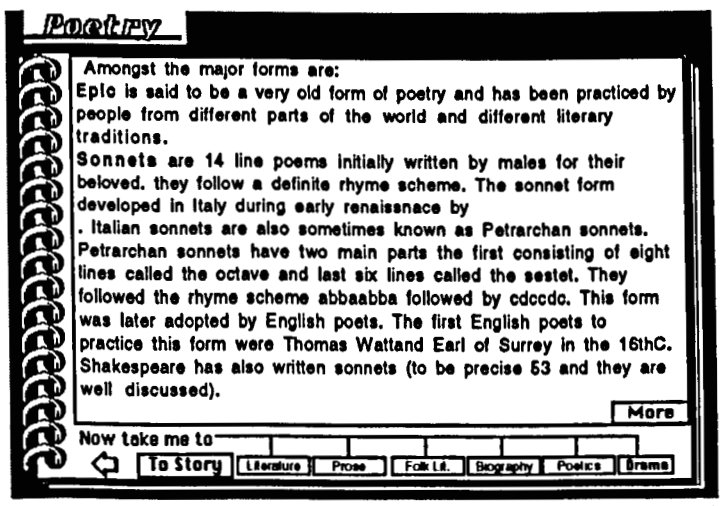

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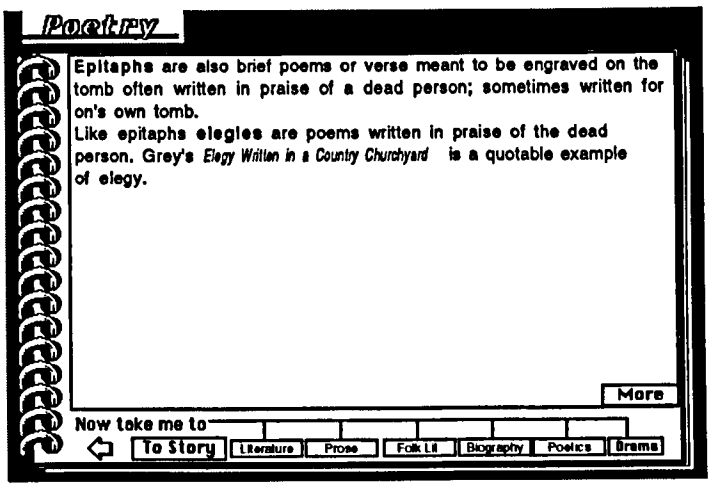


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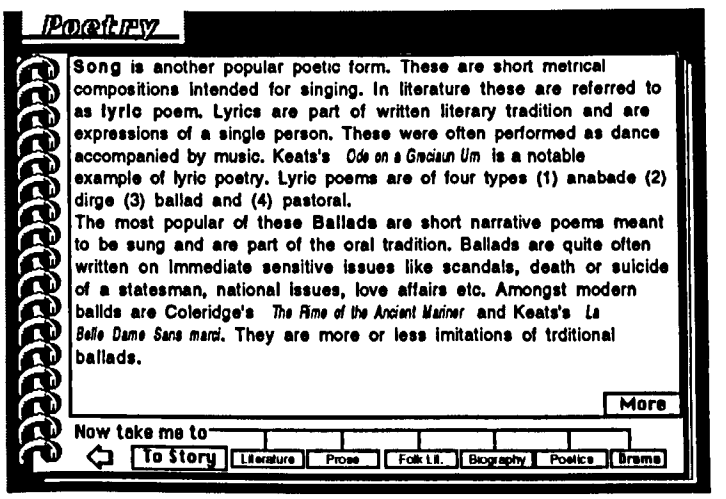


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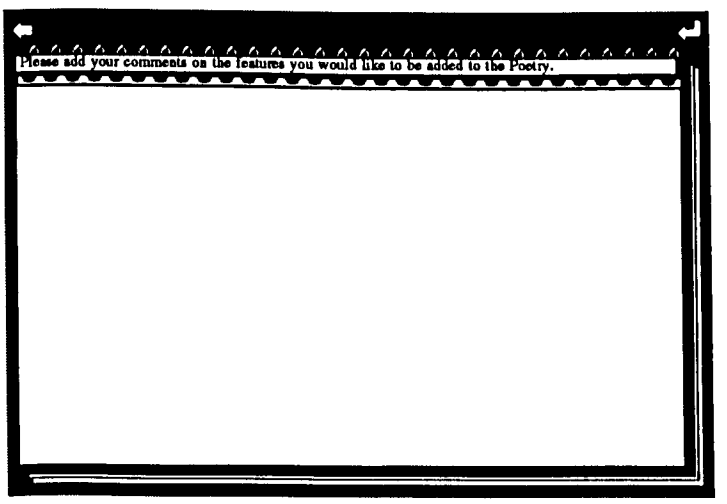

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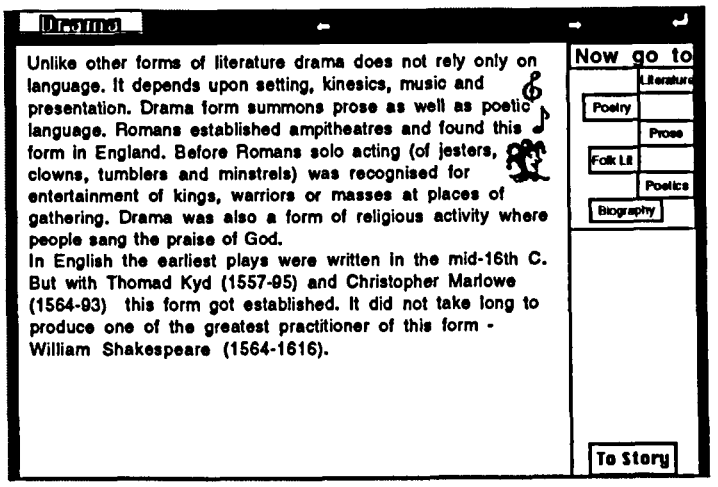


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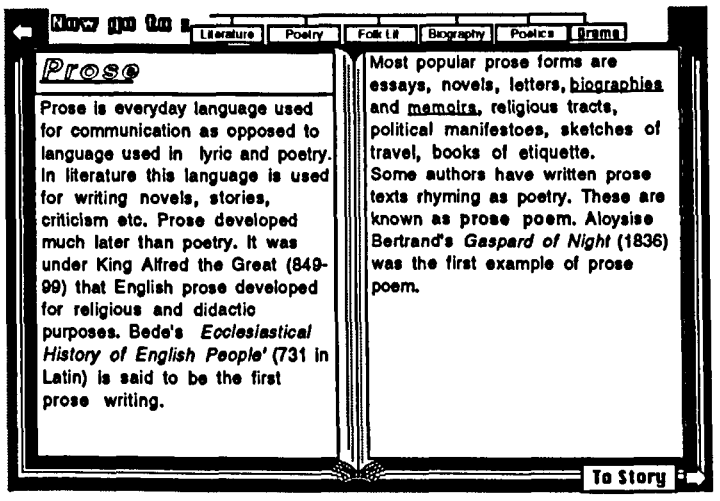


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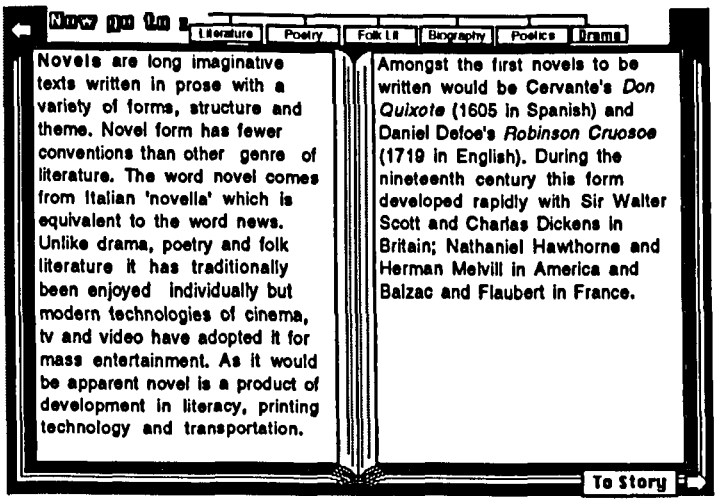

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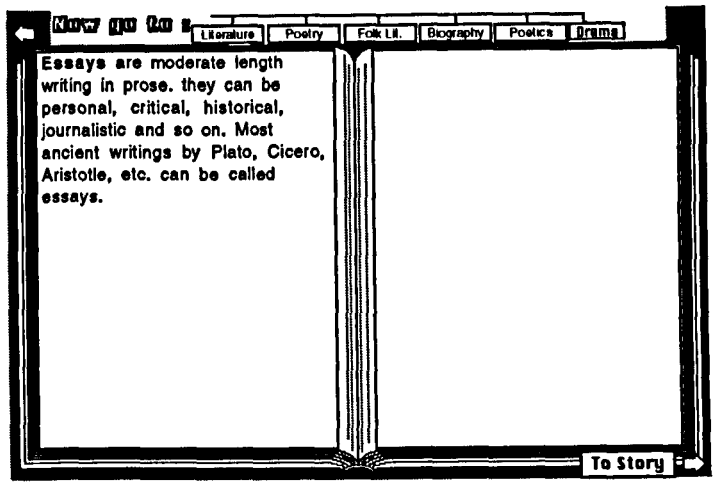


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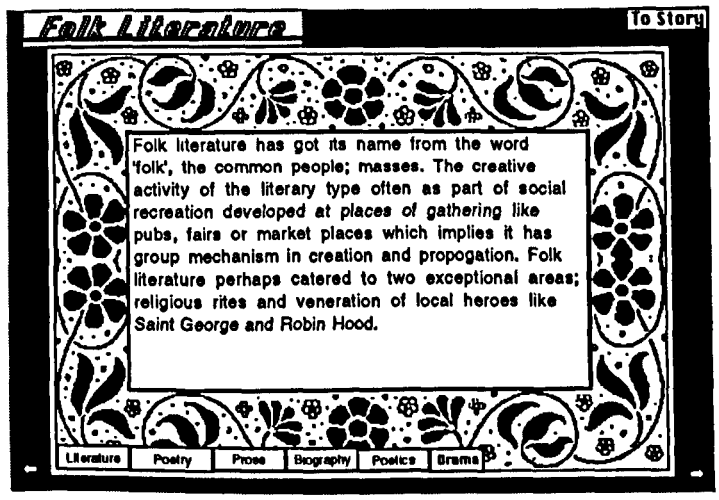


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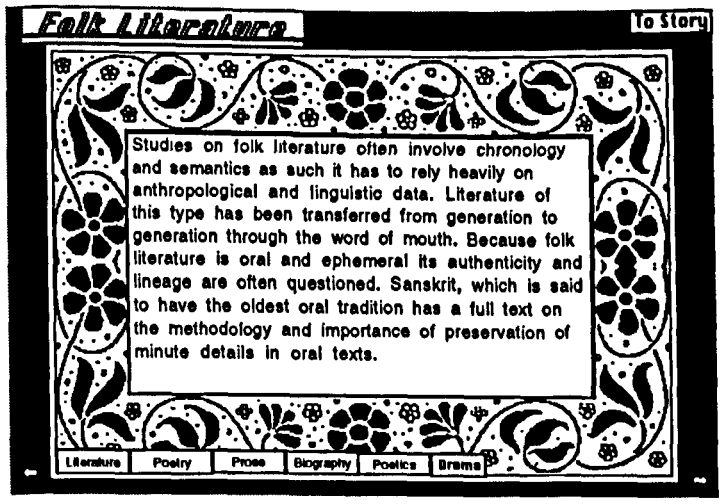

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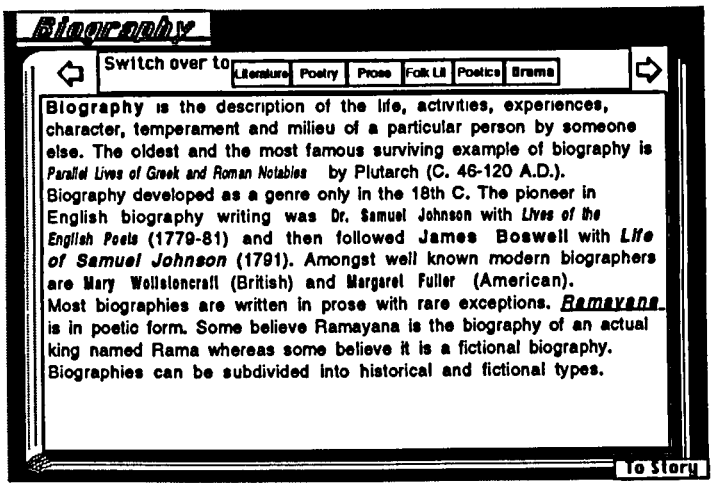


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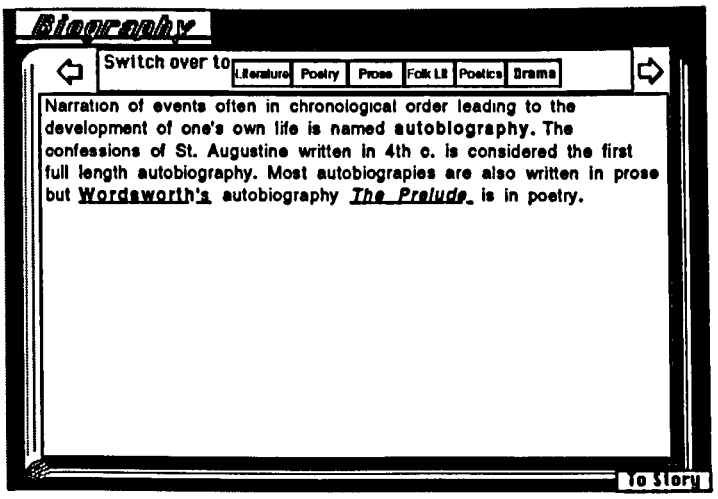
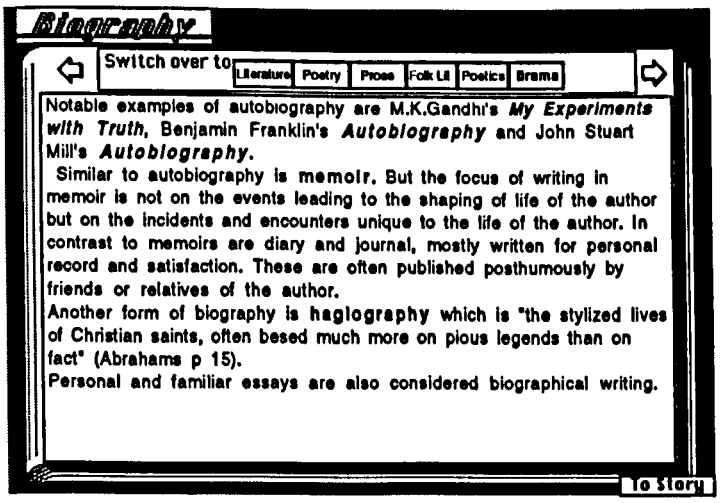
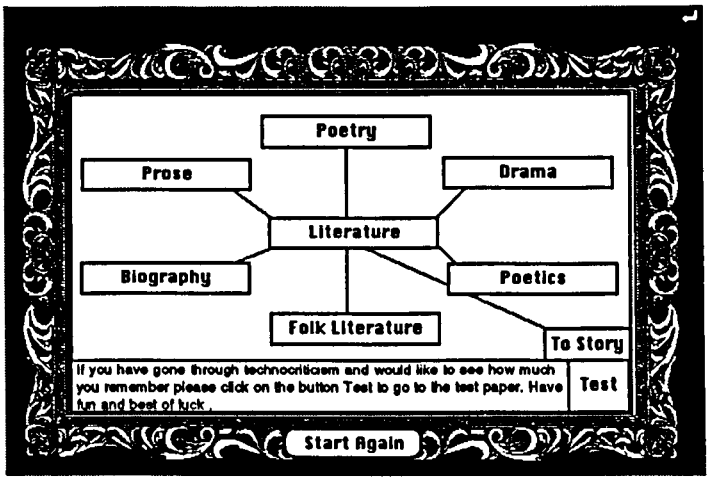



Card 48



Card 49




Card 50

William Wordsworth (1770-1850) from the Lake District in England a great admirer of nature has been one of the longest lived of English poets; although ceased to write seriously since 1815. His *Lyrical Ballads* a trend setter in poetry was published in1798 in which S.T.Coleridge contributed *The Ancient Mariner*. In the preface of the second edition of *Lyrical Ballads* published in 1800 Wordsworth wrote on the language of poetry which is said to have changed the style in poetry and subscribe to the beginning of Romantic age in English literature. Amongst the best known of his poems is *The Prelude*, an autobiographical poem although written much earlier was published in 1850.

Card 51

Further reading on defining literature:

Wellek, Rene and Austin Warren. (1949, 1961). *Theory of Literature.* London: Jonathan Cape.

Card 52

Further reading on 'Reader's response theory':

Eco, Umberto. (1979). *The Role of the Reader: Explorations in the Semiotics of Texts.* Bloomington : Indiana University Press.
Fish, Stanley. (1980). 'Literature in the Reader' in *Is There A Text in This Class?.* Cambridge (Mass.). Cambridge University Press. pp 21-67

Card 53

You can refer to the following books for further information:

Selden Raman. (1985, 89). *A Reader's Guide to Contemporary Literary Theory.* New York: Harvester Wheatsheaf.

Card 54

For further reading:

Barthes, Roland. (1977). 'The Death of the Author' in *Image Music Text.* (Translated by Stephen Heath). London: Fontana Press.

Card 1.

This screen appears when one opens *Technocriticism.* It stays on the monitor for four seconds and then disappears automatically. As it appears and disappears the entry time of the user is recorded.

Card 2.

The first screen on closing leads to this screen. If the user clicks anywhere other than the two visible screens a message 'Please click on the visible screen to initiate action' appears. If the user clicks on 'Technocriticism' it opens up the definition of *Technocriticism* and if the user clicks on 'Chandra Bhushan Sharma' it reveals details of the author. There is an invisible text at the bottom part of the screen and if the cursor crosses this area it appears.

Card 3

This screen can be approached only through the button 'Technocriticism' on card 2 (see p. 270). The text is locked and no changes can be made to it. As at the top layer a pop-card is placed on the click of the mouse card 2 (see p. 270) opens.

Card 4

This screen is the identity card of the author. as the user clicks the button 'Chandra Bhushan Sharma' this screen opens and stays for four seconds and automatically closes. All through the period of opening and closing a music goes on.

Card 5

This card includes all the questions that users of *Technocriticism* had to answer before viewing the programme. If one does not answer the first question and tries to go further the programme will automatically quit. Once the first question has been answered the rest five questions keep appearing one by one. After all the questions are answered card 8 (see p. 272) opens.

Card 6

This can be said the last card of 'Technocriticism' because when the user wishes to quit this card is opened up. The first layer of this screen thanks the user for using this programme and then two questions follow. Finally when the user quits the 'Exit time' of the user is recorded.

Card 7

No user views this card. This card has been included to store all the answers given by the users. There is just one field on this card which incorporates all the answers. As any field can include up to 30,000 words this has enough space to accommodate all data. The total content of this field has been enclosed as 'Appendix 10'.

Card 8

Having known the definition of 'Technocriticism' and the information on the author from card 2 the users come to this card to decide about the area s/he would like to look at. This is also the card where the users come when opening this stack from any other stack. When users move around in this stack they do not need to come here again because they can move around with the help of structure map provided on each card.

Card 9

This is the first card of the area defining literature. This card can be opened by clicking on the button named 'literature' placed anywhere in this stack. The button 'Further reading' takes the user to card 49 (see p. 286 ).

Card 10

This card contains more text on the definition of literature. The button 'To Story' takes the user to the first card of the 'Cat in the Rain' stack.

Card 11

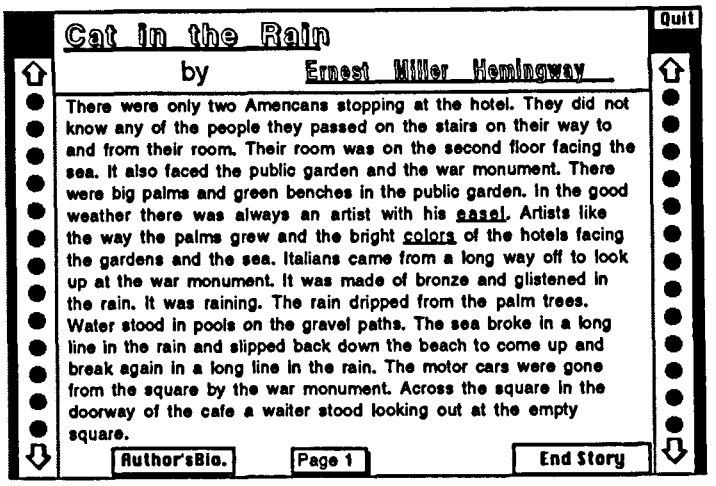
Having defined literature through the two previous cards, this card invites the user to select the theme of the type of text s/he wants to know about. Each rectangle is a button and clicking on any one of them will take to the card demarcated for information on that.

Card 12

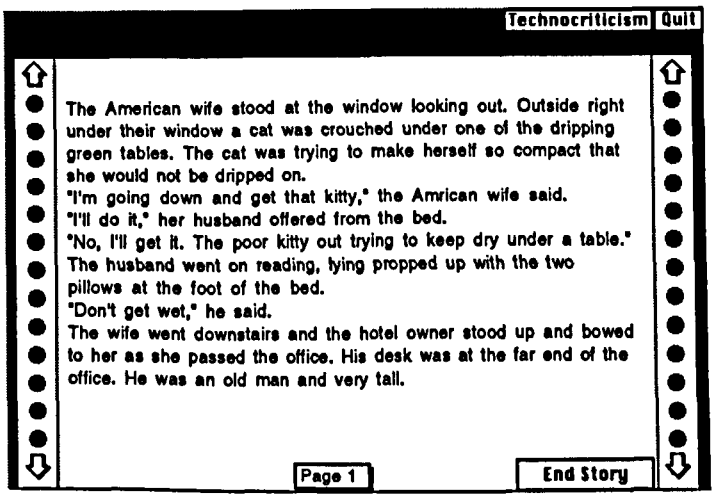
This card holds information on the treatment of nature in literature. More information on Wordsworth can be accessed on double clicking on the word Wordsworth.

## Appendix 3

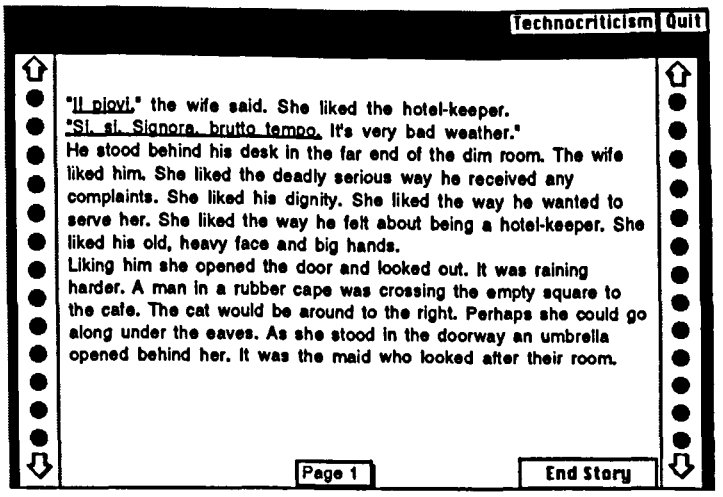
Card 1



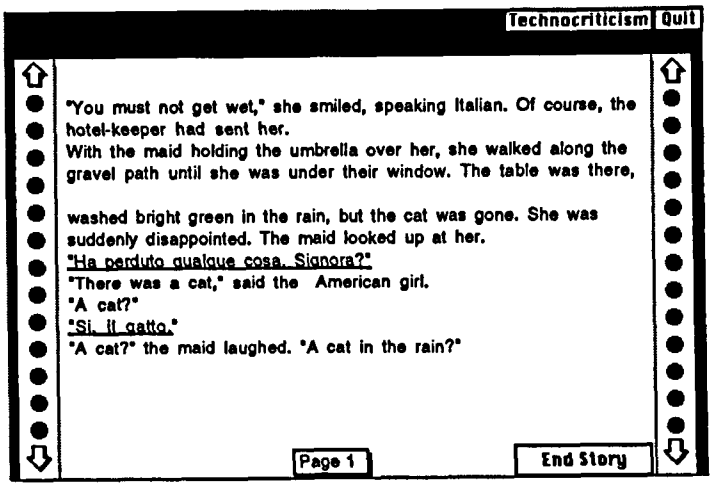

Card 2



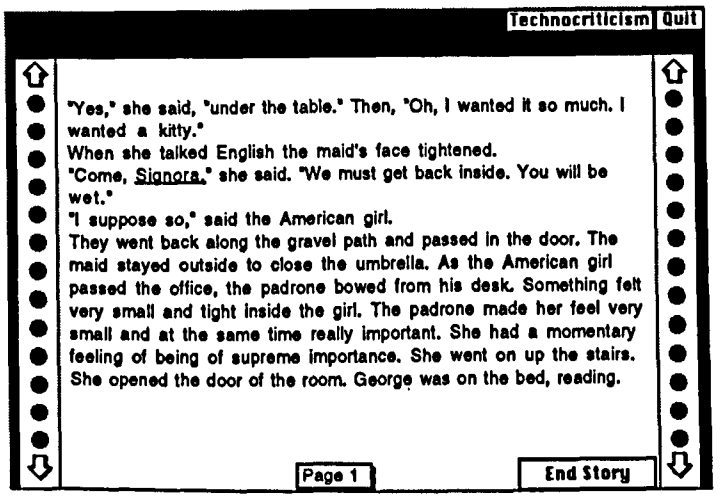

Card 3



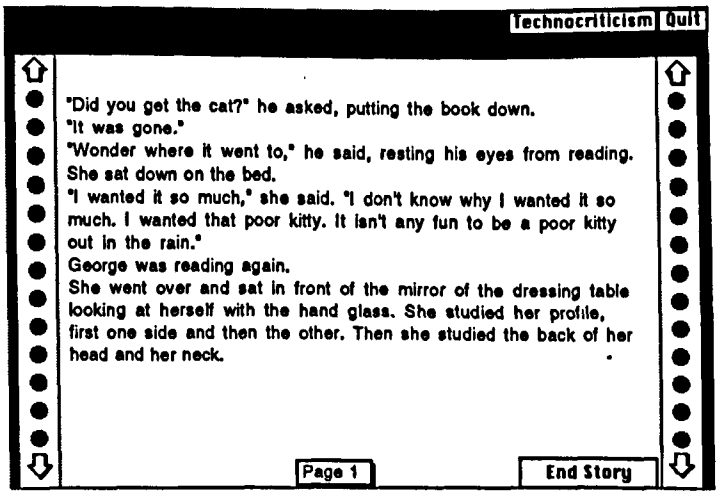
Card 4



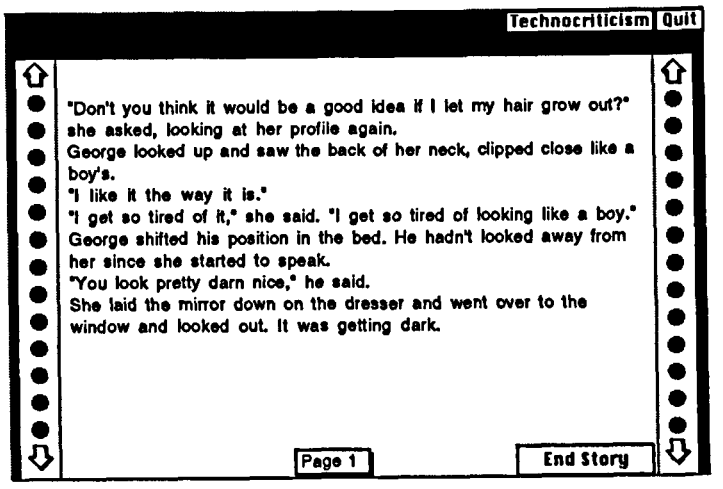

Card 5



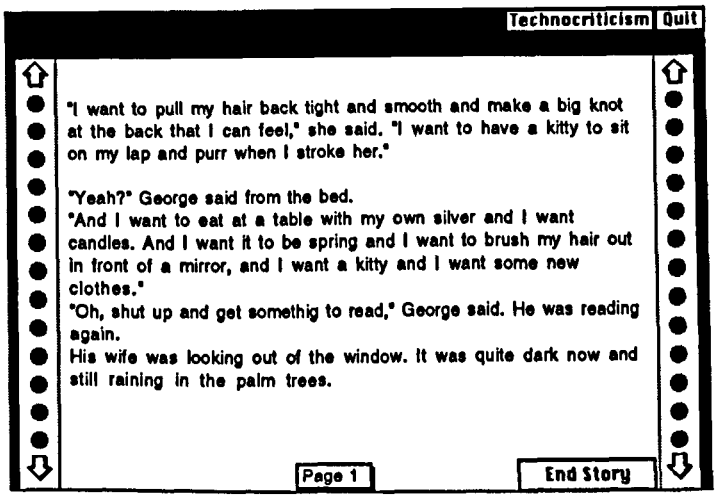

Card 6



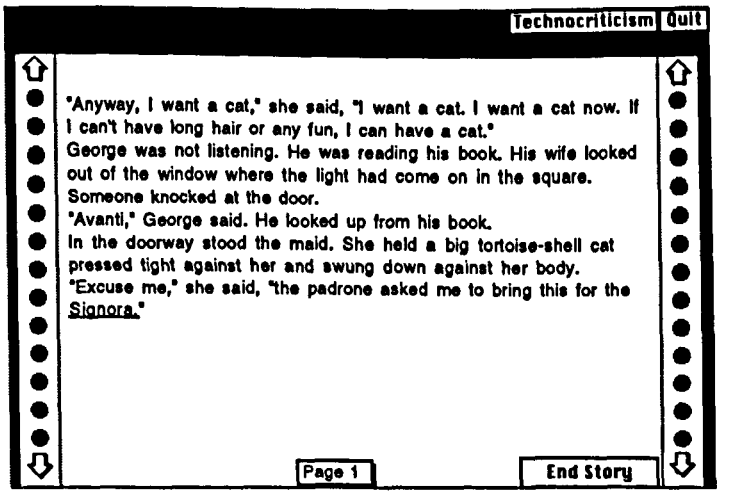
Card 7



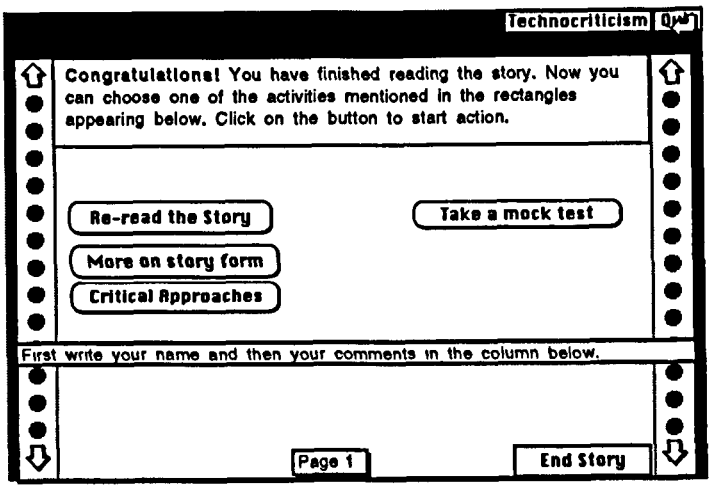

Card 8



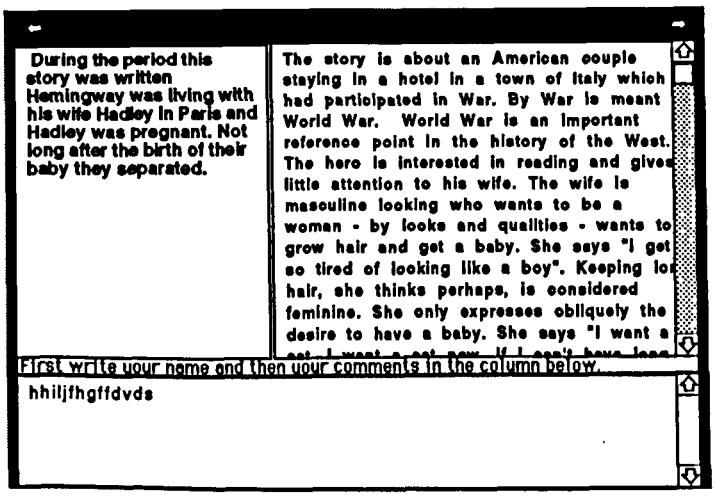

Card 9



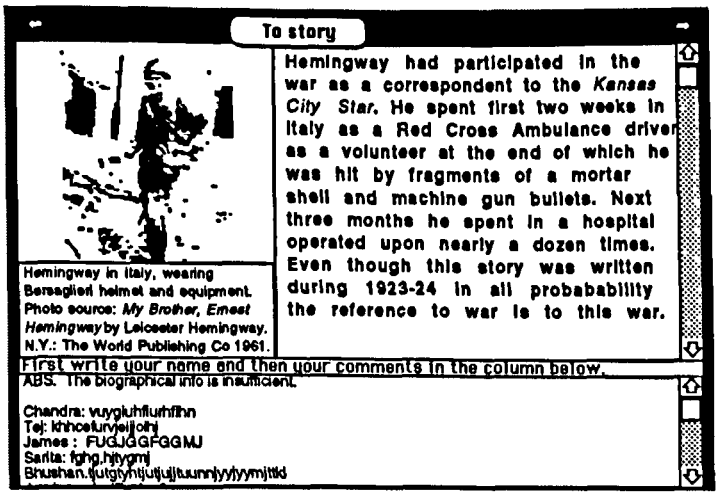
Card 10



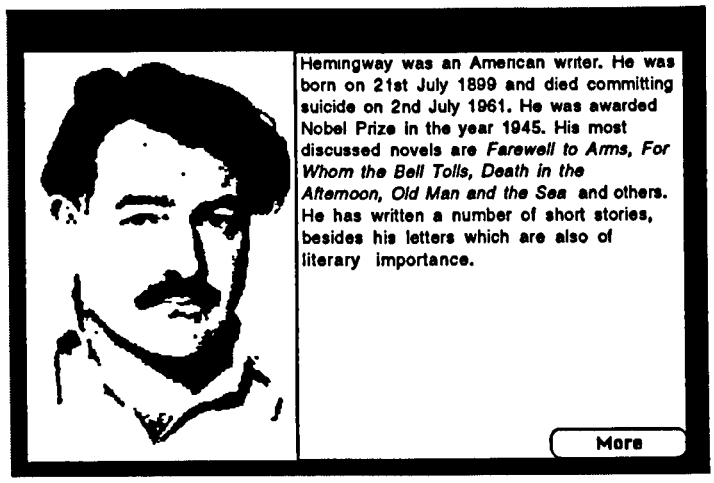

Card 11



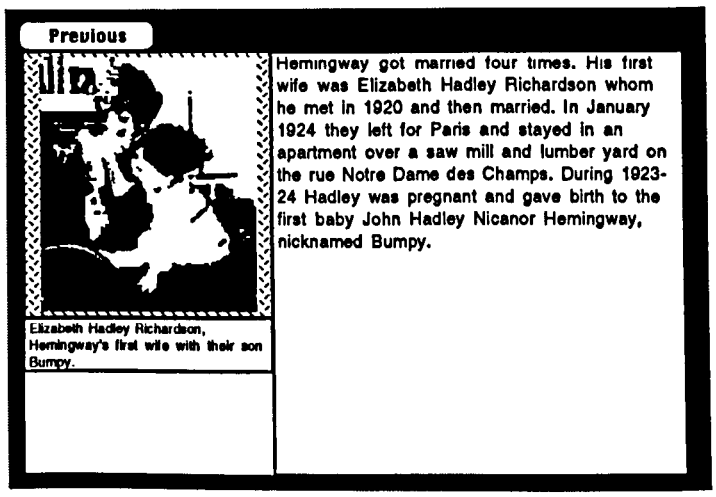

Card 12



Card 13

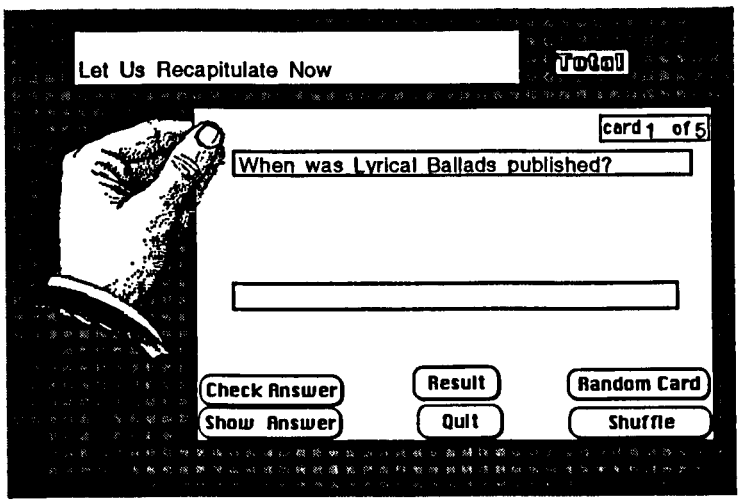



Card 14

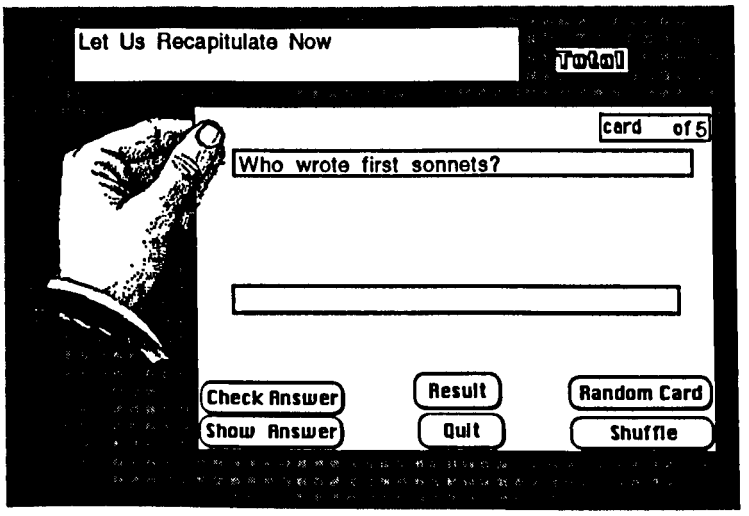


## Appendix 4

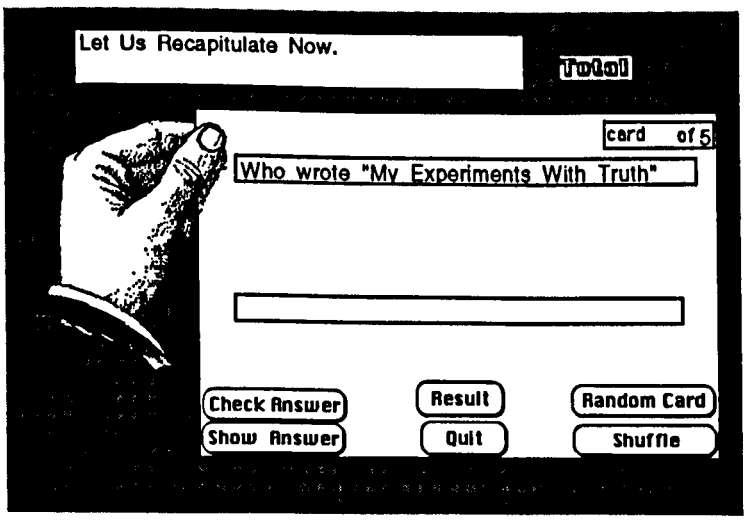
Card 1



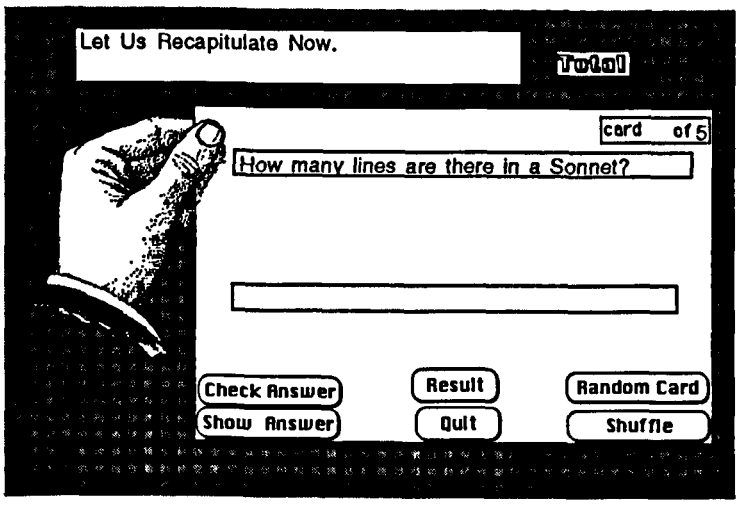

Card 2



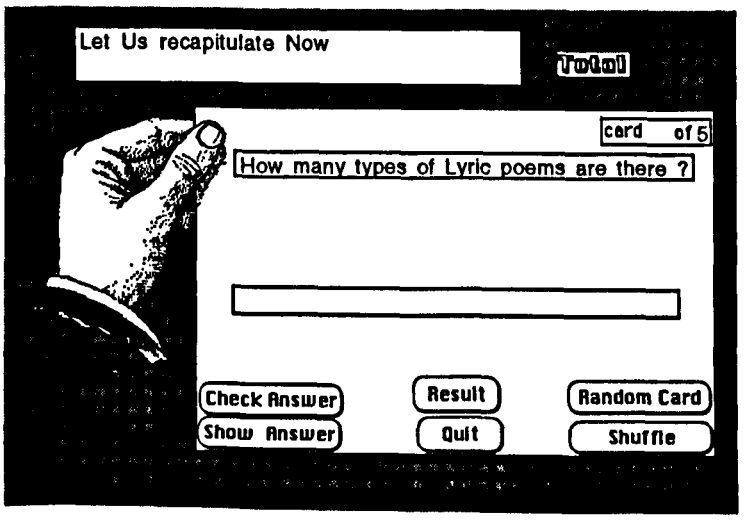

Card 3



Card 4

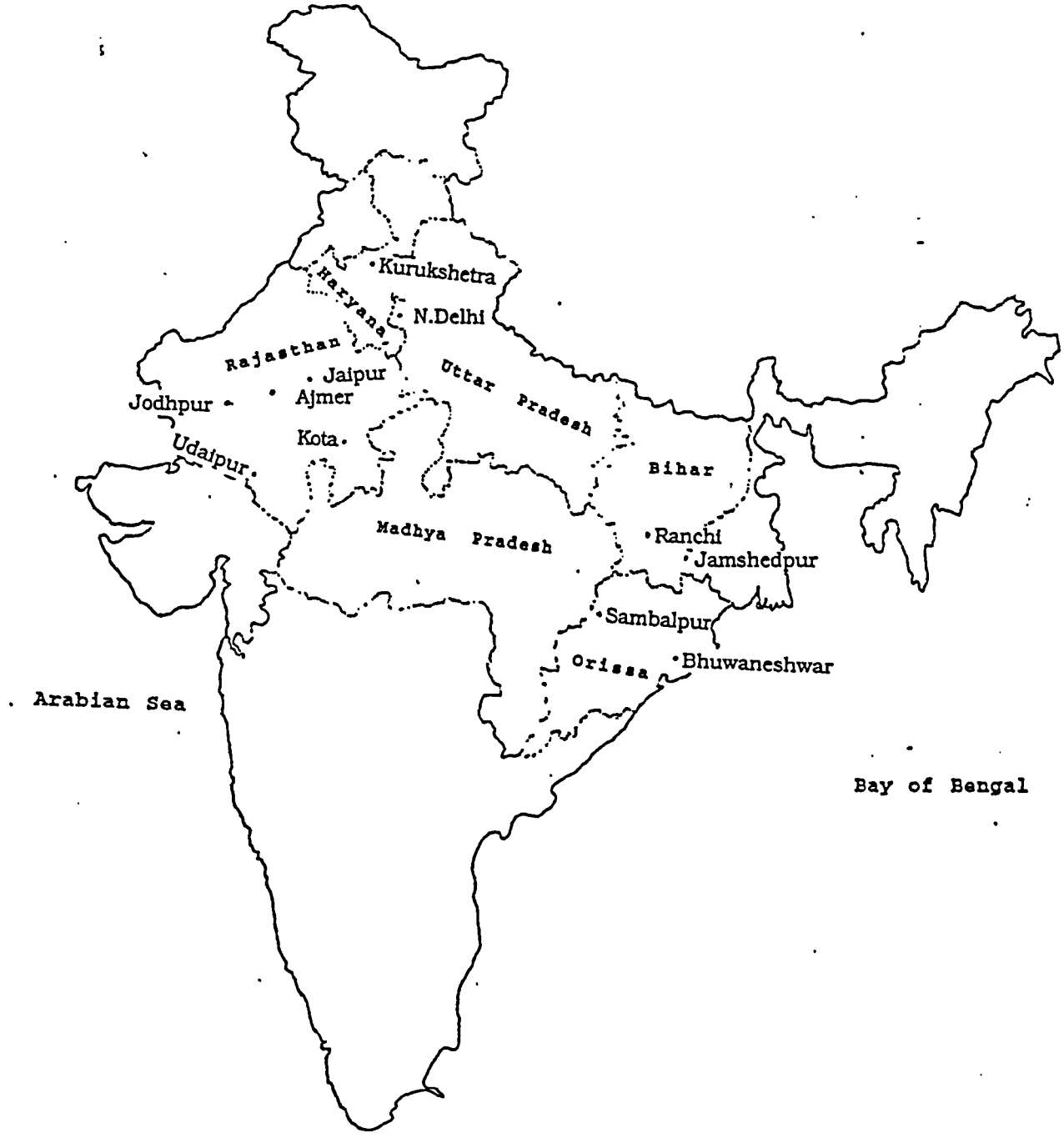

Let Us Recapitulate Now.
Total
card of 5
How many lines are there in a Sonnet?
Check Answer
Show Answer
Result
Quit
Random Card
Shuffle

Card 5


Let Us recapitulate Now
Total
card of 5
How many types of Lyric poems are there ?
Check Answer
Show Answer
Result
Quit
Random Card
Shuffle

## Appendix 5

### Political Map of India



## Appendix 6

*Table showing details of the respondents' sex, age, experience in using computer and time spent on viewing* ***Technocriticism.***

| Sl. No. | Name of the respondents | Sex | Age group | Computer use | Time spent on *Techno-criticism* in minutes. |
|---|---|---|---|---|---|
| 1 | Abbi, Dr, Anvita | 1 | a | x | 101 |
| 2 | Alam, Dr. Q.Z. | 2 | a | y | 106 |
| 3 | Bhardwaja, Dr. Renu | 1 | a | x | 48 |
| 4 | Bhoi, Mr. C.K. | 2 | a | y | 41 |
| 5 | Devta, Mr. D.S. | 2 | b | y | 66 |
| 6 | Dinesh, Prof. Kamini | 1 | a | y | 48 |
| 7 | Gautam, Dr. K.K. | 2 | a | y | 56 |
| 8 | Grewal, Prof. O.P. | 2 | a | y | 40 |
| 9 | Gupta, Dr. Anita | 1 | a | x | 62 |
| 10 | Gupta, Dr. R.S. | 2 | a | y | 66 |
| 11 | Gupta, Dr. Santosh | 1 | a | y | 40 |
| 12 | Hable, Ms. Ayesha | 1 | b | x | 46 |
| 13 | Jafri, Dr. N.H. | 2 | a | y | 54 |
| 14 | Jain, Prof. Jasbir | 1 | a | y | 60 |
| 15 | Jha, Dr. Shailaja Nand | 2 | b | x | 68 |
| 16 | John, Dr. George | 2 | a | y | 60 |
| 17 | Joshi, Dr. S.N. | 2 | a | y | 32 |
| 18 | Kanwar, Prof. Asha S. | 1 | a | x | 56 |
| 19 | Kapoor, Prof. S.D. | 2 | a | y | 55 |
| 20 | Kazi, Ms. Amina | 1 | b | y | 50 |

| | | | | | |
|---|---|---|---|---|---|
| 21 | Krishna, Prof. Francine E. | 1 | a | x | 0 |
| 22 | Kumar, Dr. Dinesh | 2 | b | y | 55 |
| 23 | Mallo, Dr. P.C. | 2 | a | y | 49 |
| 24 | Mehdi, Mr. Adeel | 2 | b | y | 69 |
| 25 | Mehta, Prof. G.M. | 2 | a | y | 41 |
| 26 | Mishra, Prof. Gyaneshwar | 2 | a | y | 55 |
| 27 | Misra, Ms. Anju Dhadda | 1 | b | y | 46 |
| 28 | Mookerjee, Prof. R.N. | 2 | a | y | 51 |
| 29 | Mukherjee, Prof. M. | 1 | a | x | 73 |
| 30 | Narang, Mr. G.L. | 2 | a | y | 59 |
| 31 | Nayak, Mr. J.K. | 2 | b | x | 46 |
| 32 | Panda, Dr. D.R. | 2 | a | y | 62 |
| 33 | Patel, Mr. P.K. | 2 | b | y | 45 |
| 34 | Prasad, Mr. G.J.V. | 2 | b | y | 77 |
| 35 | Rahman, Anisur | 2 | a | y | 47 |
| 36 | Rao, Prof. G.S. | 2 | a | x | 41 |
| 37 | Roy, Ms. Rinita | 1 | a | y | 61 |
| 38 | Sah, Ms. Arti | 1 | b | y | 48 |
| 39 | Sen, Ms. Suchandra | 1 | a | y | 43 |
| 40 | Sharma, Dr. A. B. | 2 | a | x | 107 |
| 41 | Sharma, Prof. J.N. | 2 | a | y | 92 |
| 42 | Sharma, Ms. Jayashree | 1 | b | y | 92 |
| 43 | Singh, Mr. A.K. | 2 | a | y | 77 |
| 44 | Singh, Mr. Tejinder | 2 | b | y | 69 |
| 45 | Sinha, Mr. R.N. | 2 | a | y | 58 |
| 46 | Srivastava, Mr. Sharad | 2 | b | y | 77 |
| 47 | Tete, Father N. | 2 | a | y | 66 |

| | | | | | |
|---|---|---|---|---|---|
| 48 | Thakur, Mr. A.K. | 2 | a | y | 52 |
| 49 | Tripathy, Prof. B.K. | 2 | a | y | 67 |
| 50 | Upadhyay, Ms. Sheela | 1 | a | y | 41 |

Note :

| | | |
|---|---|---|
| Sex : | 1 = Female | 2 = Male |
| Age : | a = Above 40 | b = Below 40 |
| Compter Use | x = Sometimes | y = Never |

## Appendix 7

*Table showing details of the universities and their locations (towns and states) with dates on which visited and persons interviewed.*

| University | Towns & States | Dates | Persons interviewed |
|---|---|---|---|
| Rajasthan University | Jaipur (Rajasthan) | 30.8.'93 to 2.9.'93 | Professor Jasbir Jain,<br>Dr. Francine E. Krishna,<br>Dr. Santosh Gupta,<br>Mrs. Arti Sah, and<br>Mrs. Anju Dhadda Misra |
| Mohan Lal Sukhadia University | Udaipur (Rajasthan) | 4.9.'93 to 6.9.'93 | Professor R.N. Mukherjee,<br>Dr. G.M. Mehta,<br>Dr. P.C. Mallo,<br>Dr. S.N. Joshi, and<br>Mr. Sharad Srivastava. |
| Jai Narayan Vyas University | Jodhpur (Rajasthan) | 7.9.'93 to 9.9.'93 | Professor J.N. Sharma,<br>Professor Kamini Dinesh,<br>Professor S.D. Kapoor,<br>Dr. George John, and<br>Dr. K.K. Gautam (of K.O.U.) |
| Dayanand Sarswati University | Ajmer (Rajasthan) | 9.9.'93 to 11.9.'92 | Mrs Sheela Upadhyay,<br>Mr. Tejinder Singh,<br>Mr. A.K. Singh, and<br>Mrs Suchandra Sen. |
| Jawaharlal Nehru University (J.N.U.) | New Delhi | 14.9.'93 & 16.9.'93 | Prof. Meenakshi Mukherjee,<br>Dr. R.S. Gupta,<br>Dr. Anvita Abbi,<br>Mr. G.J.V. Prasad, and<br>Dr. Shailaja Nand Jha. |
| Jamia Milia Islamia | New Delhi | 15.9.'93 & 18.9.'93 | Dr. Anisur Rahman,<br>Dr. N.H. Jafri<br>Mrs Amina Kazi,<br>Mrs Ayesha Hable, and<br>Mr. Adeel Mehdi. |

| | | | |
|---|---|---|---|
| Indira Gandhi National Open University (I.G.N.O.U.). | New Delhi | 27.8.'93 & 17.9.'93 & 6.10.'93. | Professor G.S. Rao, Professor Asha S. Kanwar, Dr. A.B. Sharma, and Dr. Renu Bhardwaja. |
| Kurukshetra University | Kurukshetra (Haryana) | 19.9.'93, 20.9.'93 & 21.9.'93 | Professor O.P. Grewal, Professor G.L. Narang, Dr. Dinesh Kumar, and Mr. P.K. Patal. |
| Ranchi University | Ranchi (Bihar) | 23.9.'93 & 27.9.'93 & 28.9.'93 & 3.10.'93. | Dr. Q.Z. Alam, Dr. A.K. Thakur Father Nicholas Tete, Mr. R.N. Sinha, Mrs Jayashree Sharma, Dr. Anita Gupta, and Mrs Rinita Roy. |
| Sambalpur University | Sambalpur (Orissa) | 24.9.'93 & 25.9.'93 | Mr. J.K. Nayak, Dr. D.R. Panda, Mr. C.K. Bhoi, and Mr. D.V. Devta |
| Bhuwaneshwar University | Bhuwaneshwar (Orissa) | 1.10.'93 | Professor G. Mishra, and Professor B.K. Tripathy. |

Thank you for your query about Intermedia and the Intermedia documents we have created at Brown. In answer I can will respond that there's good news and bad news. The bad news being that although Intermedia remains one of the finest, perhaps the finest hypertext system thus far created, it is no longer available. The good news is that all the documents have been transferred to another system, Storysdpace, and two have been published. Here is the explanation that I included in the afterword to the forthcoming Italian translation:

"In 1990 Apple Computers, Inc. effectively put an end to the Intermedia project, part of which they had funded, by so altering A/UX, their version of UNIX, that all development of the program ceased, and when Apple made new models of the Macintosh fundamentally incompatible with the earlier version of A/UX, it became clear that no one could use Intermedia even in a research situation. Intermedia ran essentially without maintenance for two years --itself an astonshing tribute to software of such complexity -- while we sought another system. Eventually, we chose Eastgate Systems's Storyspace, which one of its developers, J. David Colter, accurately described to me as "the poor man's Intermedia," and in a fairly short time we tranlated all the Intermedia webs to this new environment.

Storyspace, which works on any Macintosh, does not have Intermedias UNIX-based system of varying permissions (which permit an instructor to fix or freeze a document while permitting students to link to it), and it also does not have either Intermedias structured graphics editor or its ability to permit individual documents to participate in multiple webs. On the other hand, it has a range of valuable qualities, not the least of which is that it will work on any Macintosh. Importing text and images, making links between words and phrases, full-text searching, and organizing document arc all very easy, and although this system does not have Intermedia's Web View, the Storyspace Roadmap, which one can call up by pressing a simple key combination, provides a partial analogue to this invaluable feature by furnishing a reading history and list of link destinations for each individual document.

Perhaps most important, the simple fact that Storyspace runs on any Macintosh created novel portability for all the webs originally created for Intermedia. Since students can copy any web from a server situated in the Computing and Information Technology building but accessible from various parts of the university, they can both read and write webs anywhere they have access to a Macintosh. (Since Storyspace permits one to copy linked sets of lexias easily, one can create comments at home and later paste them into the master or server version of any web to share with others.)"

Eastgate Systems has published two of the hypertexts discussed in the book--the *In Memoriam* and *Dickens Webs* in forms that do not require Storyspace itself. You can purchase both Storyspace and these two webs from them at Eastgate Systems, PO Box 1307, Cambridge, MA 02238 (617) 924-9044.

**Appendix 9**

*Some questions for creative writers*

I am approaching you to get first hand information from a creative writer regarding the process of creation and the characteristics of literary texts. On the basis of the responses I intend to prepare a multimedia programme and suggest techniques teachers should apply in teaching literary texts. A few of the questions might be of a personal nature but they are intended to form general opinions about the literary texts. After conducting similar interviews with other creative writers I intend to make large data bank to help British and Indian students read and appreciate literature written in English in two different geographical areas. The format would be hypermedia and we plan to store information besides the written mode in visual and oral modes.

Do you think that your works have been influenced (thematically, linguistically, stylistically etc. by any (or many) previous or contemporary writers?

Has that influence come from the Indian tradition?

Has that influence come from the vernacular tradition?

Has that influence come from the British (or any other) tradition?

Do you enjoy being in that influence or you want to come out of that influence? Could you please give arguments to support your response?

Have you written anything which has (in the form of a character, setting etc.) very close similarity to your own background (economical, social etc.)? Would you mind disclosing the name of the work?

Do you in your everyday life search for a plot to write on?

Does your travelling and meeting with people add dimensions to your writing?

Does it happen that you are suddenly struck by an incident and you feel you should write on it?

Would you agree that writers are the megaphones of society or "the unacknowledged legislators of mankind"?

Supposing you are struck by an idea on which you write do you insert elements of fiction to distance it from real life? And to make it literary?

How much of your writing is a personal account of your experiences and encounters with people in real life? In other words how much of your writing is autobiographical?

How often do you agree with your critics/readers?

Do you sometimes want to rewrite/reword your works?

Do you feel on the basis of your discussion with your readers that your poem actually says something which you did not intend to say i.e. is there a gap between the thought (idea) and the expression (language)? Any examples?

If your mother tongue is not English and you write in English have you ever felt that you have an idea which originated in your mother tongue and you have to make extra effort to translate that idea in English because English does not have a word to express that idea?

In this context do you think paint is a better medium to express than words?

Do you think cinema and drama producers, architects and music directors have a better medium at their disposal than writers?

Have you ever used or contemplated using drawings, pictures like William Blake or any other stylistic device like e.e.cummings to enhance communication? Which pieces? Who do you write for? Or who you expect are your readers?

Do you think your readers (different in domicile, cultural background etc. than yours) would need to be aware of some symbol system to fully understand your writing like one would need to be aware of the Biblical imagery to understand the *Paradise Lost*?

Has any of your text been translated?

If yes; do you think the translated text conveys the same message?

Do you enjoy reading translated texts or do you think the message is distorted in the translated texts?

Thank you for your cooperation. Could I contact you again if need arises? If yes could you please write your address below.

## Appendix 10

Entry time 4:12 am.
Barry Prescott
sex: male,
age: 20 - 40,
profession: other,
Computer Use: Frequently,
Interactivity: very,
MoreHypertext: Yes,
Exit Time: 5:20 am.
Entry time 6:27 pm.
Amiya Bhushan Sharma
sex: male,
age: above 40,
profession: teacher,
Stream: DistanceEducation,
Compurter Use: sometimes,
Interactivity: Moderate,
MoreHypertext: Yes,
Exit Time: 8:14 pm.
Entry time 3:11 pm.
Prof Jasbir Jain
sex: female,
age: above 40,
profession: teacher,
Stream: Conventional,
Computer Use: Never,
Interactivity: Moderate,
MoreHypertext: Yes,
Exit Time: 4:11 pm.
Entry time 7:06 pm.
Arti Sah
sex: female,
age: 20 - 40,
profession: teacher,
Stream: Conventional,
Computer Use: Never,
Interactivity: very,
MoreHypertext: Yes,
Exit Time: 7:54 pm.
Entry time 9:10 am.
Anju Dhadda Misra
sex: female,
age: 20 - 40,
profession: teacher,
Stream: Conventional,
Computer Use: Never,
Interactivity: very,
MoreHypertext: Yes,
Interactivity: very,
MoreHypertext: Yes,
Exit Time: 9:56 am.
Entry time 1:53 pm.
Santosh Gupta
sex: female,
age: above 40,
profession: teacher,
Stream: Conventional,
Computer Use: Never,
Interactivity: Moderate,
MoreHypertext: Yes,
Exit Time: 2:33 pm.
Entry time 8:38 pm.
Sharad Srivastava
sex: male,
age: 20 - 40,
profession: teacher,
Stream: Conventional,
Computer Use: Never,
Interactivity: very,
MoreHypertext: Yes,
Interactivity: very,
MoreHypertext: Yes,
Exit Time: 9:55 pm.
Entry time 12:32 pm.
Dr. S.N.Joshi
sex: male,
age: above 40,
profession: teacher,
Stream: Conventional,
Computer Use: Never,
Interactivity: Low,
MoreHypertext: Yes,
Exit Time: 1:04 pm.
Entry time 8:46 am.
Prof R.N.Mookerjee
sex: male,

age: above 40,
profession: teacher,
Stream: Conventional,
Computer Use: Never,
Interactivity: very,
MoreHypertext: Yes,
Exit Time: 9:37 am.
Entry time 11:55 pm.
Dr. G.M.Mehta
sex: male,
age: above 40,
profession: teacher,
Stream: Conventional,
Computer Use: Never,
Interactivity: Low,
MoreHypertext: Yes,
Exit Time: 12:36 pm.
Entry time 7:17 pm.
P.C.Mallo
sex: male,
age: above 40,
profession: teacher,
Stream: Conventional,
Computer Use: Never,
Interactivity: very,
MoreHypertext: Yes,
Interactivity: very,
MoreHypertext: Yes,
Exit Time: 8:06 pm.
Entry time 10:01 am.
Prof Kamini Dinesh
sex: female,
age: above 40,
profession: teacher,
Stream: Conventional,
Computer Use: Never,
Interactivity: Moderate,
MoreHypertext: Yes,
Exit Time: 10:49 am.
Entry time 11:07 am.
Prof. S.D. Kapoor
sex: male,
age: above 40,
profession: teacher,
Stream: Conventional,
Computer Use: Never,
Interactivity: Moderate,
MoreHypertext: Yes,
Exit Time: 12:02 pm.
Entry time 1:22 pm.
Dr. George John
sex: male,
age: above 40,
profession: teacher,
Stream: Conventional,
Computer Use: Never,
Interactivity: very,
MoreHypertext: Yes,
Exit Time: 2:22 pm.
Entry time 8:24 pm.
Prof J.N.Sharma
sex: male,
age: above 40,
profession: teacher,
Stream: Conventional,
Computer Use: Never,
Interactivity: Moderate,
MoreHypertext: Yes,
Exit Time: 9:56 pm.
Entry time 7:45 am.
Dr.K.K.Gautam
sex: male,
age: above 40,
profession: teacher,
Stream: DistanceEducation,
Computer Use: Never,
Interactivity: very,
MoreHypertext: Yes,
Exit Time: 8:41 am.
Entry time 11:23 am.
Tejinder Singh
sex: male,
age: 20 - 40,
profession: teacher,
Stream: Conventional,
Computer Use: Never,
Interactivity: very,
MoreHypertext: Yes,
Exit Time: 12:32 pm.
Entry time 7:40 pm.

A.K.Singh
sex: male,
age: above 40,
profession: teacher,
Stream: Conventional,
Computer Use: Frequently,
Interactivity: very,
MoreHypertext: Yes,
Exit Time: 8:57 pm.
Entry time 12:51 pm.
Sheela Upadhyay
sex: female,
age: above 40,
profession: teacher,
Stream: Conventional,
Computer Use: Never,
Interactivity: very,
MoreHypertext: Yes,
Exit Time: 1:32 pm.
Entry time 2:32 pm.
Mrs Suchandra Sen
sex: female,
age: above 40,
profession: teacher,
Stream: Conventional,
Computer Use: Never,
Interactivity: very,
MoreHypertext: Yes,
Exit Time: 3:15 pm.
Entry time 9:07 am.
Dr. R.S.Gupta
sex: male,
age: above 40,
profession: teacher,
Stream: Conventional,
Computer Use: Never,
Interactivity: very,
MoreHypertext: Yes,
Exit Time: 10:13 am.
Entry time 12.05 pm.
Dr. ShaijalaNand Jha
sex: male,
age: 20-40,
profession: teacher,
Stream: Conventional,
Computer : Sometimes,
Interactivity: very,
MoreHypertext: Yes,
Exit Time: 1:13 pm.
Entry time 9:02 am.
Ms. Amina Kazi
sex: female,
age: 20-40,
profession: teacher,
Stream: Conventional,
Compurter Use: sometimes,
Interactivity: very,
MoreHypertext: Yes,
Exit Time: 9:52 am.
Entry time 11:06 am.
Ayesha Heble
sex: female,
age: 20-40,
profession: teacher,
Stream: Conventional,
Compurter Use: sometimes,
Interactivity: very,
MoreHypertext: Yes,
Exit Time: 11:52 am.
Entry time 2.10 pm.
Adeel Mehdi
sex: male,
age: 20-40,
profession: teacher,
Stream: Conventional,
Compurter Use: sometimes,
Interactivity: very,
MoreHypertext: Yes,
Exit Time: 3:19 pm.
Entry time 11.40 pm.
Prof M.Mukherjee
sex: female,
age: above 40,
profession: teacher,
Stream: Conventional,
Compurter Use: sometimes,
Interactivity: very,
MoreHypertext: Yes,
Exit Time: 12:53 pm.
Entry time 3:53 pm.

Dr. N.H. Jafri
sex: male,
age: above 40,
profession: teacher,
Stream: Conventional,
Compurter Use: sometimes,
Interactivity: very,
MoreHypertext: Yes,
Exit Time: 4:47 pm.
Entry time 8:30 pm.
G.J.V.PRASAD
sex: male,
age: 20-40,
profession: teacher,
Stream: Conventional,
Computer Use: Never,
Interactivity: very,
MoreHypertext: Yes,
Exit Time: 9:47 pm.
Entry time 9:23 pm.
Dr. Anvita Abbi
sex: female,
age: above 40,
profession: teacher,
Stream: Conventional,
Compurter Use: sometimes,
Interactivity: very,
MoreHypertext: Yes,
Interactivity: very,
Exit Time: 11:04 pm.
Entry time 2:48 pm.
Asha S Kanwar
sex: female,
age: above 40,
profession: teacher,
Stream: DistanceEducation,
Compurter Use: sometimes,
Interactivity: very,
MoreHypertext: Yes,
Exit Time: 3:44 pm.
Entry time 4:38 pm.
Prof G.S.Rao
sex: male,
age: above 40,
profession: teacher,
Stream: DistanceEducation,
Compurter Use: sometimes,
Interactivity: very,
MoreHypertext: Yes,
Exit Time: 5:19 pm.
Entry time 8:02 pm.
Anisur Rahman
sex: male,
age: above-40,
profession: teacher,
Stream: DistanceEducation,
Computer Use: sometimes,
Interactivity: Moderate,
MoreHypertext: No,
Exit Time: 8:49 pm.
Entry time 8:32 pm.
Dr. Renu Bharadwaj
sex: female,
age: above 40,
profession: teacher,
Stream: DistanceEducation,
Compurter Use: sometimes,
Interactivity: very,
MoreHypertext: Yes,
Exit Time: 9:20 pm.
Entry time 8:58 am.
P.K.Patel
sex: male,
age: 20 - 40,
profession: teacher,
Stream: Conventional,
Computer Use: Never,
Interactivity: very,
MoreHypertext: Yes,
Exit Time: 9:43 am.
Entry time 11:53 am.
Prof G. L . Narang
sex: male,
age: above 40,
profession: teacher,
Stream: Conventional,
Computer Use: Never,
Interactivity: very,
MoreHypertext: Yes,
Exit Time: 12:52 pm.

Entry time 1:15 pm.
Dr. Dinesh Kumar
sex: male,
age: 20 - 40,
profession: teacher,
Stream: Conventional,
Computer Use: Never,
Interactivity: very,
MoreHypertext: Yes,
Exit Time: 2:10 pm.
Entry time 11:16 am.
Prof. O.P.Grewal
sex: male,
age: above 40,
profession: teacher,
Stream: Conventional,
Computer Use: Never,
Interactivity: very,
MoreHypertext: Yes,
Exit Time: 11:56 am.
Entry time 12:04 pm.
Mrs. Jayashree Sharma
sex: female,
age: 20 - 40,
profession: teacher,
Stream: Conventional,
Computer Use: Never,
Interactivity: very,
MoreHypertext: Yes,
Exit Time: 1:36 pm.
Entry time 9:44 am.
Dr. A.K.Thakur
sex: male,
age: above 40,
profession: teacher,
Stream: Conventional,
Computer Use: Never,
Interactivity: very,
MoreHypertext: Yes,
Exit Time: 10:36 am.
Entry time 5:50 pm.
R.N.Sinha
sex: male,
age: above 40,
profession: teacher,
Stream: Conventional,
Computer Use: Never,
Interactivity: very,
MoreHypertext: Yes,
Exit Time: 6:48 pm.
Entry time 9:53 pm.
Fr. N.Tete
sex: male,
age: above 40,
profession: teacher,
Stream: Conventional,
Computer Use: Never,
Interactivity: very,
MoreHypertext: Yes,
Exit Time: 10:59 pm.
Entry time 9:04 am.
Prof Q, Z. Alam
sex: male,
age: above 40,
profession: teacher,
Stream: Conventional,
Computer Use: Never,
Interactivity: very,
MoreHypertext: Yes,
Exit Time: 10:50 am.
Entry time 12:16 pm.
Mr. J.K.Nayak
sex: male,
age: 20 - 40,
profession: teacher,
Stream: Conventional,
Compurter Use: sometimes,
Interactivity: very,
MoreHypertext: Yes,
Exit Time: 1:02 pm.
Entry time 1:30 pm.
Dr. D. R. Panda
sex: male,
age: above 40,
profession: teacher,
Stream: Conventional,
Computer Use: Never,
Interactivity: very,
MoreHypertext: Yes,
Exit Time: 2:32 pm.

Entry time 11:06 am.
Mr. D.S. Devta,
sex: male,
age: 20 - 40,
profession: teacher,
Stream: Conventional,
Compurter Use: sometimes,
Interactivity: very,
MoreHypertext: Yes,
Exit Time: 12:12 pm.
Entry time 3:21 pm.
Mr. C. K. Bhoi
sex: male,
age: above 40,
profession: teacher,
Stream: Conventional,
Computer Use: Never,
Interactivity: Moderate,
MoreHypertext: Yes,
Exit Time: 4:02 pm.
Entry time 12:01 pm.
Prof G. Mishra
sex: male,
age: above 40,
profession: teacher,
Stream: Conventional,
Computer Use: Never,
Interactivity: very,
MoreHypertext: Yes,
Exit Time: 12:56 pm.
Entry time 4:27 pm.
Prof B.K.Tripathy
sex: male,
age: above 40,
profession: teacher,
Stream: Conventional,
Computer Use: Never,
Interactivity: very,
MoreHypertext: Yes,
Exit Time: 5:34 pm.
Entry time 12:56 pm.
Dr. Anita Gupta
sex: female,
age: above 40,
profession: teacher,
Stream: Conventional,
Compurter Use: sometimes,
Interactivity: very,
MoreHypertext: Yes,
Exit Time: 1:58 pm.
Entry time 4:57 pm.
Mrs. Rinita Roy
sex: female,
age: above 40,
profession: teacher,
Stream: Conventional,
Computer Use: Never,
Interactivity: very,
MoreHypertext: Yes,
Exit Time: 5:58 pm.