ABSTRACT: Print materials appeal to only one of the five senses, namely, the sight of man. Electronic medium provides for the effective use of the ‘sight’ and ‘hearing’ senses. With enormous dissemination capacity, easy acceptance by customers and monopolistic/profound effect on users a medium like TV acts as a ‘Third parent’ to children, a powerful and hypnotic gadget to adults and a ‘cultural melting pot’ for the society. The advantages and limitations of both print and electronic media for information acceptance, perception and use by man are discussed. Information industry is considered as belonging to leisure industries. Impact of electronic media on education, entertainment, information supply and social, cultural and behavioural aspects are mentioned.

Introduction

Libraries having only print materials are restricted and useful only to functional literates. They appeal to only one of the five senses, namely the sight of man. ‘Sight’ is a very powerful sense of man and reading books makes highly inefficient and under-utilisation of this sense by requiring it to scan linearly printed black alphabets of a language against white background of paper. Imparting knowledge has necessarily to make use of all the five senses of man and break the monotony of alphabets.

Reading is believed to make man to close his mind to wider possibilities of imaginative expression. Print has formed a circle of aloofness around the reader and typing has reduced expression from art to craft and from personal to impersonal.

Electronic medium is a powerful tool having vast and wide applications in society. How much of it can be taken to their folds by libraries is left to one’s imagination. Electronic
medium emphasises effective use of the `sight' and `hearing' senses and naturally, rare use of the other senses.

**Electronic Media**

Electronic media has pivotal role in information transfer, education, culture, environment, health, politics, commerce, etc. The entertainment value of the media has overshadowed the informational, educational and cultural values. As a double edged tool of ‘third wave’, electronic media is encroaching and eroding the readership of already under-used print medium. In the struggle for coexistence, books have been relegated to the position of ‘inferior goods’ (as per the economic analysis of income elasticity of demand). At the same time, electronic media is helping libraries to increase their efficiency and effectiveness by providing information in all its dimensions and colours. Unlike print medium, electronic media do not always require knowledge of script, comprehension and cerebral coordination on the part of users. Just understanding of the spoken language, access to the media and very little training are enough to use many services in electronic media. Electronic media coupled with advances in telecommunication make it economical to cover vast geographical area and almost complete population under information services. There is no limit on physical proximity of electronic libraries and their users. Above all, people perceive the utility of electronic libraries as quite high and there is no need for strong motivation to use them.

With enormous dissemination capacity, easy acceptance by customers and monopolistic/profound effect on users a medium like TV acts as a `third parent’ to children, a powerful and hypnotic gadget to adults and a `cultural melting pot’ for the society.

Information technology and computer based systems are now dominating and revolutionising libraries with versatility of
their compact multimedia storage, electronic viewing and manipulation, instantaneous transfer and movement of information and inexpensive duplication. Print on paper is only one of the media for carrying information. Electronic libraries expand the horizon of information gathering, increase perception, processing, comprehension and understanding of information by users through the compactly, concisely, less ambiguously and directly stored information and provide for interaction with media as well as manipulation of information. At the same time limitations of electronic libraries / media like costs, compatibility, copyright, lack of standardisation and adverse / ill effects are to be noted.

**Information and Leisure Industries**

Libraries belong two competing and complimentary industries, namely information industry and leisure industry. They are competing because both try to claim the leisure time and leisure expenses of people. They are complimentary because information technology is tending to increase the leisure time available without reducing the income from the work.

Three major inputs into the process of leisure production are time, money and technology. In other words, the available leisure time coupled with the level of consumers’ disposable income and the state of technical knowledge determine the production of leisure. Leisure, though not solely a service industry, has been part of tremendous rise in the service sector of the economy relative to the manufacturing sector.

Many leisure activities are quite demanding in terms of the skills required to enjoy them to the full. Leisure time become boring without sufficient consumption skills and in such situations people resort to low skill activities like watching TV. Teen-agers are often bored (and even resort to crime and
vandalism for excitement) due to lack of adequate / better leisure facilities and lack of consumption skill if facilities are available. Activities like using a library or a database, reading a book, appreciating an art, etc., require adequate consumption skill on the part of customer. Even low skill activities like watching TV and movies require `appreciation' training and skill to make maximum benefit out of the activities. This appears to be one of the reasons for decrease in reading habit and increase in watching TV.

**Impact of Electronic Media and Libraries**

As mentioned earlier, some of the positive and negative effects of electronic media on education, entertainment, information supply and social, cultural and behavioural aspects are worth noting. Interestingly, information superhighway can virtually allow talking, learning (education), shopping, playing (entertainment), investing (finance), etc. on a global basis.

**Education:** By and large, electronic media/libraries aid all types of education - formal, nonformal, adult, vocational, distance and higher. But, if education is to give first place to the culture of the heart or the building of character as desired by Gandhiji, the ‘violent and hot’ electronic media may fail in some respects. Further, as found by U.S National Commission on Education, commercial electronic media (i) lead children to synthetic as opposed to analytic modes of learning, (ii) make the boundary between reality and fantasy unclear and (iii) cause rejection of the message when clashed with the expectation.

**Entertainment:** Electronic media has brought total democratisation and transformation of the concept of entertainment. Yet they fall short of `family’ expectations.
The ‘cocktail’ of amusement and social education has not been effective as messages through amusement and entertainment are not perceived transparently sincere. Entertainment reflects something of the psychic drives that lie deeper than immediately apparent demands of the market. It is not possible for an ‘entertainment-led’ revolution to occur. But people want and are willing to pay for entertainment industry. Hence entertainment has dominated televideo and leisure time of the people.

**Social, Behavioral and Cultural Effects:** Communication plays important role in bringing social change. Social change and economic development are closely related. Electronic media have changed the living habits, styles and values of people. They have shaken the traditional unwritten family norms, culture and behaviour. Aggregate flow of reiterated formulae, formats and ritualisation in electronic media cultivates the social environment. Minds are fertilised and nurtured within shared cultural environment of the world. A ‘cultural melting pot’ like televedio provide common denominator and helps homogenisation of a heterogeneous society. Yet it is not totally free from divisive and ill effects. As a powerful and hypnotic gadget, it affects behaviour of viewers particularly children. The trends like an average American child spends 10% of his or her time watching TV and gets exposed to over 1 lakh acts of violence by the time he or she becomes 13 year old and TV has moved from 8th to 3rd place out of top ten factors influencing the youth are quite disturbing. Even in India, the average time spent in watching TV is 14 1/2 hours a week (The Hindu, 26 Nov. 1995, Magazine Section PI). The result is that the margin between childhood and adulthood is cut and children give an impression that they are more matured than what they are. Televedio causes diminishing
respect for adults, exposes adolescents to unreal and provocative life and shakes the confidence and trust of children in traditional proven values.

**Ill Effects of Electronic Media on Values and Habits:**
Adverse or ill effects of electronic media on human values and habits cannot be easily ignored. It is difficult to say whether or not electronic media and modernisation of libraries through new technologies should conform to values. Of course, creativity of library users may not depend on whether a library is electronic or otherwise. Unlike nature, technology does not possess the virtues of being self-balancing, self-adjusting and self-cleansing. Further, modern technology has deprived man of the kind of work that he enjoys most, creative, useful work with hands and brains but has given him plenty of work of a fragmented kind, most of which he does not enjoy at all (Schumacher, 1973).

**Social Isolation:** Social isolation is the major problem of today’s world. One-fourth of American households consist of a single person. The technology has eroded the bonds of neighbourly interdependence and become ‘isolating technologies’. The ‘cool’ print medium isolates individual but sponsors rational and dispassionate analysis of the message unlike the ‘violent and hot’ electronic media which encourages group and even mob thinking (The Economist, 21-27 August 1993, p34). The internet is knitting congenial sails together without visual contact and hence does not fully gratify the social machinery in our minds. Further, "... the net adds to the information overload, whose psychological effects are still unknown but certainly aren’t wholly benign" (Wright, 28 Aug 95, p 45).
"The pursuit of more communication keep us from better knowing our neighbour, better knowing our kin - in general, from cultivating the warm, affectionate side of human nature whose roots science is just now starting to fathom" (Wright 28 Aug 95, p46). The electronically recorded messages are just taking over the place of village headman, the schoolmaster or mistress, the doctor, priest or party functionary.

Developments like video on demand (VOD), virtual reality (VR) coupled with data super highways (DHS) are revolutionising entertainment, education and information supply. Spending time may become the central problem or opportunity of life and "The individuals of tomorrow would be subjected to greater isolation, though of a self pleasing kind, and the lonely Disneylands of the future are at least a stimulating substitute for lonely idleness" (Smith, September 1993). At the same time the modern technological societies need literate elites who depend substantially on print world.

Conclusion

It is still believed that print medium with its ease of use allows you to have more purposeful and fruitful time spending (by ordering what you want, when you want and where you want) and supports the basic human drive to self improvement than electronic media. Only print medium can break greater loneliness and isolation (like Disneylands) created by technology.

Electronic media do not respect freedom, autonomy, diversity and individuality. They have scant respect for intelligent viewers. Print as a ‘cool’ medium also appears to provide more real and rational messages than ‘violent and hot’ electronic media. Print is almost perception independent and
overcomes perceptual constancy and misperception whereas electronic media depend on viewers’ perception.

Print provides lasting experience rather than instant entertainment, education and information. Print upholds cultural value and electronic media has all the potential to set cultural degradation. Electronic media sometimes has inbuilt information hierarchies which, at times, affect ease of use. In addition, print has much less health hazards than televideo.

As on today, large chunk of information continues to be in paper medium. It is pertinent to note a finding of a recent study by M/s. Coopers and Hybrand (Hendley, 1988, p17) that "...of the information that enters an organisation in paper form, only 1% is coded and entered into computer systems, under 5% is converted to microfilm at some stage of its life and 94% remains in paper form throughout its life time. In addition, as the volume of transactions grows the volume of paper handled is rising at the rate of 25% per year". Thus, inspite of many mass-storage devices like microform, optical and electronic media, and paper continues to have a major share. It is unrealistic to think of disposing paper system. In an automated environment also, it is desirable that manual system coexist to some extent to take care of SOS call.

Digital representation of information in electronic media makes it amenable to cost-effective processing, communication and storage. But many attributes like ubiquity, quality of display, ease and speed of browsing and aesthetics like feel, texture, quality of binding, etc. of a printed book still score over electronic media. There are many tangible and intangible benefits of books which are not available in
electronic form. For example, browsing, which is an important requirements of users, is slowed down by 40% if done on CRT (Gimson, 1995, p 141). Similarly, electronic media skips proof reading, makes editing (on VDU) more difficult and time consuming and creates tendency to skip an important process called refereeing required for quality control.

Regarding the cost of superhighway, it may be noted that "No matter who builds it, the global data network will be staggeringly expensive: estimates range from $400 billion over 20 years in North America alone up to more than a trillion dollars worldwide, and the truth is that no one knows how high the cost will be" (McGrath, 6 June 1994, p19).

Lastly, there is a dire need for according equal importance to electronic media in libraries. There is also a need for re-thinking and re-defining the role of libraries to accommodate dynamic multimedia information in electronic / digital form and to provide mechanisms that will cater for ‘living’ information that can be modified and adopted by users. Further, it is equally important to impart necessary consumption skills for effective and efficient use of electronic libraries.

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