COMMUNICATION TECHNOLOGY:
Challenges and Opportunities for Media Studies

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Abstract

The dimensions of media studies are closely related to the communication technology as it not only affects the media products and their use but also changes the structure of media organization and employment patterns. The advanced communication technology has brought about the third communication revolution, also nudging the departments of mass communication to change their courses and adopt new teaching methods in order to meet the modern day requirements. This paper covers briefly how media education started, developed and adjusted to the changing communication technology in Pakistan. It pinpoints the new communication technology and challenges being faced by departments of media studies. This paper also presents few recommendations on how these departments can meet the challenges, avail the opportunities and produce media experts.

Introduction

The world is now going through the third communication revolution caused by the convergence of communication satellites, computers and digitization. The first two communication revolutions were generated by the evolution of writing and the invention of printing. The evolution of writing created the first communication revolution because it made possible communication across time and space while allowing knowledge to expand infinitely. Gunaratne, (1997) points out that it was a true revolution because it challenged the authority of those who held power and the

elders who preserved and passed on their accumulated knowledge. (p. 83).

Print journalism made its advent in the early 17th century. Dominic (1997) mentioned that the invention of the printing press and the introduction of movable type to the Western world are usually associated with a German, Johan Gutenberg. (p. 80). The idea of a mass circulated newspaper followed the invention of printing. Gunaratne, (1997) says "Johannes Gutenberg's invention of printing with moveable type in the mid-1400s brought about the second revolution in human communication because it challenged the monopoly on authority that belonged to the rulers and the priests and allowed the spread of vernacular languages and eventually, democracy". (p. 83).

The second revolution created the need of media education in the world. Tuggle, (1999) defines media literacy as the ability to communicate competently in all media forms, as well as to understand, interpret, analyze and evaluate media messages. (p. 69). The media education first began in the United States as education of print media. Soon after, European and other countries felt the need for media education and various institutions established departments of journalism. Radio was invented around 1920 and television around 1940 which enhanced the importance of media education. Along with the institutions, on-job training continued for a long time and is still continuing in many cases and almost in all countries.

Media Education in Pakistan (A brief history)

In the Sub-continent (Pakistan, India, and Bangladesh) print journalism made its advent in 1780. For more than a century and a half the need of training journalists, outside the newspaper offices, was not felt. In an interview Miskeen Ali Hijazi[1] pointed out that in 1941 a tiny department of

journalism was established in the University of the Punjab, Lahore (Pakistan). And the first training programme was a six-month postgraduate certificate course aiming at training reporters, sub-editors and article writers for newspapers. After two years this certificate course was made the one-year postgraduate diploma course. This diploma course continued till 1960.

During those days, radio was in its early stage and even the concept of television did not exist in the Sub-continent. In fact print journalism was the only effective medium. Thus the training programme for journalists was confined to print journalism, mainly English and Urdu newspapers. The one-year postgraduate diploma was finally upgraded to master's level in 1960. Courses on radio journalism, newspaper management, national and international affairs were also included in the syllabus.

Television made its debut in Pakistan in 1964. The expansion of print media, development of radio and introduction of television technology in Pakistan increased the importance of mass media in the country. Consequently, the importance of media education was also increased. So the syllabus was once again updated and the subject of television was added to it. Hijazi[2] mentioned that with the addition of radio and television the departments of journalism were renamed as departments of Mass Communication in 1986. Besides this, Pakistan Television Corporation and Pakistan Broadcasting Corporation are running their own academies for training new entrants to these media centres. Mass communication is also being taught at the B.A. and B.A. Honours levels in several colleges in the country.

The syllabi and course of reading are designed by the board of studies of the universities. Every board of studies includes three to four senior practitioners from outside the

universities. The board of studies of mass communication comprises senior practitioners from the media industry (print and electronic medium) other than the experts and teachers of communication. These members prepare the syllabi keeping in view the objective conditions in the country and the needs of the media organizations.

Present Situation

Journalism has come a long way since the Gutenberg Bible of 1455 which was itself the result of new technology; in this case movable type and mechanical printing. Since then, new technology has been at the forefront of journalism developments. Journalism has grown up along with telegraph, telephone, satellites and news agencies. Now the world is going through the third communication revolution resulting from the convergence of communication satellites, computers and digitization. And the modern age is called digital age. Digitization converts all information text, sound and pictures into a binary code that can promptly travel through a global network of computers linked by telephones, fiber optics and satellites.

Digital technology greatly enhances the opportunity available to broadcasters to utilize multiple channels. Raboy, (1997) clarifies digital age as:

1. Technically, the digital age is characterized by the convergence of communication technologies such as broadcasting, telephone, computer and satellite;

2. Structurally, this convergence has resulted in the emergence of a multi-channel environment;

3. Politically, it coincides with the widespread globalization of issues and phenomena, of which broadcasting is an important one;

4. Economically, it is characterized by the move towards free trade and the reluctance to protect national markets;

5. Ideologically, it is not favourable to suggest measures that depend on considerable involvement of the state, that is to say, it is de-regulationists;

6. Socio-culturally, it is marked by changing needs and increasingly demanding expectations of audiences and the individuals who compose them.

So the digital age is just one way of describing a new communication environment which has upset conventional ideas about the public obligations of broadcasting. (p. 90)

One can see many changes. Kazi[3] states that the large and awkward radio sets were replaced by handy transistors, records were displaced by tapes and then by cassettes, and cinema is brought into every home by the VCR. In time, black and white TV sets gave way to colour sets. CDs made their appearance. However it was the satellite dish and cable TV which brought the world into our very own homes, that bowled us over completely, and for the first time gave Pakistanis a taste of what is now known as global culture. Its explosion intensified the growing issue of trans-border communication, or free flow of information.

Today the dish fever has subsided as a still more sophisticated medium has come i.e. the PC or personal computer which created a revolution, rather a technological revolution. Media organizations and media products are changing rapidly due to this technology. Busby (1988) has pointed out that in the newspaper and magazine industries, a reporter " writes " copy on a video terminal at his/her desk. A computer software programme is used to check spellings. The reporter then pushes a button and sends the

copy to another department where it is electronically edited. The copy is then placed on the page electronically—no more cutting, no more pasting, and no more layout tables. After the pages are electronically assembled, the entire publication is sent by a satellite to various presses, where the publication is put into a hard copy for distribution. (p. 379)

Among the most frequent users of computer-art technology are commercial artists, many of whom work for large firms that can afford the costly equipment. Advertising agencies use computers to produce eye-catching visual images for magazines and brochures. Busby (1988) has mentioned that the marriage between art and computer has had its greatest influence on television commercials and film animation. Advertising agencies were among the first to be attracted and use computer generated imaginary (CGI). Commercials using computer graphics are now frequently seen on television. (p. 380)

Now, it is perhaps the turn of internet as the most modern and sophisticated means of telecommunication technology to bring the people of different races, cultures, habited and even age groups together to a single network enabling them to share, inter change and of course, exchange various views, voices and videos from one part of the world to another. Zafar[4] (2003) argues that this information technology is bringing about dramatic changes in the way we live, and work. It is a rich reference library, a treasury of newspapers and magazines, a shopping guide, a games arcade, a mail box, a telephone, a fax, a music player a movie player, in short the ultimate machine for all your needs. (p. 20)

Satellites and computers are changing the way reporters collect and write their information. They are also changing dramatically the whole editing and transmitting process with

digital computer editing and storage. Herbet (2000) explains that journalists now communicate instantly all over the world through cyberspace. At their fingertips are the internet, electronic bulletin boards, e-mail, the ability to access information from all kinds of public and private sources, electronic databases as sources of information (p. 8).

Practically, the internet system has squeezed the longer and larger distances between one end to the other and the world seems to have been converged into ones finger tips. It is no longer a question of wait and see, you can just have, by pushing some buttons on the internet base, any information, sketch, profile or statement of your choice from any library or business centre in New York, London or elsewhere, in no time. The facility comes to your help through the main operative organ called World Wide Web.

The technology revolutions of radio in the early 1920's and television in 1950's transformed the news industry as dramatically as the computer and internet are doing today. Herbert (2000) explains that satellite delivery of copy to printers is now a common place. Newspaper copy, complete with layouts, is sent by satellite to central editorial offices to remote printing plants, which makes delivery even faster and global. Computerization is making even greater changes. Software such as Pagemaker and QuarkXPress now allows journalists and editors to do much of the work at their desks on their own computers. Journalists can now carry around with their own personal newsroom. (p.7)

High technology has opened up new application areas and created new services like online data base (some times called electronic publishing) and desktop or in-house electronic publishing systems, which require a personal computer, page make-up software and a laser printer to

create charts, graphics and headlines. More and more companies are turning in order to cut the cost and other limitations.

In such circumstances, one of the biggest challenges for Journalism and Mass communication institutions is new communication technology.

Presently following universities and colleges are offering media education in Pakistan.

University of the Punjab, Lahore
Lahore College University for Women, Lahore
University of Karachi
University of Sindh
University of Balochistan
University of Peshawar
Gomal University,Dera Ismail Khan
Islamia University, Bahawalpur
Bahauddin Zikrya University, Multan
Allama Iqbal Open University Islamabad
Federal Urdu College, Karachi
Fatima Jinnah Girls College, Lahore
Kinnaird College, Lahore

Currently none of those is fully equipped to train the students to meet the challenges of new communication technology.

Analysis and Recommendations

The third communication revolution has reached our doorsteps and the new era of satellite and cable TV has begun. These new channels (cable and private), besides opening the gates to a new world of entertainment for the viewers, have also created immense job opportunities. The first place towards which media look for recruitment of new

talent, are the mass communication departments of the universities. This has greatly increased the responsibilities of the departments because the employers are always eager to hunt for the youngsters who are sufficiently trained in technical and other fields. To meet this challenge, institutions of media education have to improve their courses of studies massively and immediately to fulfil the present day requirements.

Advancing technology and a changing social scene are altering the course of media studies. The business side of journalism including mergers and acquisitions of smaller publication by media giants is also changing the fields and has created a need to train students in fair, unbiased reporting and community services as well as in technology.

Mass communication department is now called a software institution, not a hardware institution, because our focus is on content and core values and to create honest and able journalists. In today's environment of fast paced electronic media, where sensation often replaces substance, we have to fight more for the values of a responsible, fair-minded press. Print media will exist for a long time despite the Prophets of Doom. Our curriculum of mass communication should focus more on desktop publishing, and the use of the visual media with print in more integrated way than in the past. Data access reporting and manipulation of computerized data base networks is another new focus.

It is well known that "on-line journalism" is becoming a necessity. Institutes should put more emphasis on "on-line Journalism". The journalistic content available on internet is in fact print journalism. Thus the education of print media has assumed more significance. It is wrong to presume that without adequate education and skill in print media, one can succeed in on-line journalism. Hijazi[5] has mentioned that on-line journalism requires more knowledge and more

skill than print journalism. Hence, there is a need of continuing emphasis on education of print media.

At the same time institutions of media education should try to prepare their students for more variety in jobs. Writers have to be prepared to assume all journalistic roles, from the analyst to the columnist, from the feature writer to the editorial writer, from correspondent to beat reporer. The focus and the anchor of curriculum should be to teach the responsibilities of a free press in a democratic society. Mass communication programmes should also merge various forms of communication i.e. advertising, public relations, etc.

In this age of information technology when equipment gets easier to use, fewer operators are needed. To take photographs a few years ago required great technical knowledge and skill, including the ability to develop the prints. Smith (1995) explains that today, with a small digital camera mounted on an unattended tripod, a video journalist can be his or her own reporter, cameraman, lighting engineer, director, secretary, and tea maker. Little technical background is required. (p. 222). Thus the department of media study should train the future journalists accordingly and make them experts of all these fields.

Television is more powerful than ever, particularly with the mergers in the industry and the wiring of the world. Many in education seek to use television as an adjunct to their curriculum. This occurs chiefly in two ways-video tapes in the class room or assigned viewing. The American media literacy has added an important course for students of media studies to read television that is to understand the differences among news reports, commercials, documentaries, plays and other programmes. To combat

the new challenges such courses should also be designed and taught in our country also.

The field of television is a practical one and cannot be learned by studying books and attending lectures. Therefore every department of mass communication should have a properly equipped TV laboratory. Ideally, a proper studio with a control room and established transmitting facilities are required. These facilities can train the students in producing programmes and telecasting them for viewers at least within the university campus or in the immediate vicinity outside the university.

Media literacy courses involve actual production and broadcast over cable. Now students are required to shoot for TV and do their stories in television forms. It should be mandatory for the students to learn and manage all stages of production including the creative side, the camera work, the editing (linear and non-linear) and the transmission under the guidance of their teachers who should be experienced professionals. Only then they would be able to produce television reports, game shows, documentaries, talk shows, advertisement, different types of demonstrations, short plays or skits, or one man shows, even soap operas.

Television production is an active and cooperative learning because no one can make good television programmes alone. Making television programmes also teaches the important skills of writing clearly and accurately. At the same time, it encourages creativity (in shots, angles, lighting, presentation etc.) And there is an added benefit: students who spend time making television programmes are empowered. They begin to understand the medium and thus gain power over it.

The basic requirement for radio and TV news bulletin is news writing and editing skills which can easily be taught in the classroom. Students can be taught to select news items from agency copies or even from the newspapers, edit them and to rewrite them, and finally compile them to form a complete bulletin.

Another important field of consideration for mass communication departments is the digital editing, in both TV and radio. It can be learnt quickly and with little effort. Its speed makes it particularly helpful for news covering. And allied to storage and retrieval systems it offers very neat ways for playing in actuality clips. The journalists are squeezing out the news readers (proof readers). Every journalist collects, writes, edits, links, and plays the actuality himself.

In education and research the benefits of new communication technology are clear. The introduction of internet services into colleges and universities allows students and teachers alike to explore a veritable universe of information at their fingertips. Goh (1995) states "Online today, one can find all kinds of educational resources ranging from the Smithsonian Museum of Natural History to the entire catalogue of the library of congress and collections of academic dissertation at individual universities". Add to this incredible set of resources, the prospects of two-way communication and the ability to share computer resources across the internet, that makes it feasible to even complete a doctoral thesis half way across the world from ones research adviser. (p.207). It is therefore required that mass communication departments should link up to the internet. There is an amazing amount of material freely available on-line. They have to make an ambitious effort aimed at demonstrating how people and information resources on the internet can be used as a

class room tool for research and a medium for interactive collaborative learning.

Similarly, VCR is still the technology of choice in classrooms. Teachers complement their curriculum with documentaries or taped lectures, and the specialists provide instructions-cum-video tape. A related and ultimately more powerful and effective use of video technology is known as multimedia including voice, data, image, text and video. This creates the need to teach and train the students and make them multimedia experts.

With the rapid development of information and communications technology, it has become essential rather critical to teach basic computer skills to the students. In order to present information in different kinds of ways, the students of media studies are required to learn the uses of new technology. The students have to become multilingual, which in this context means speaking the television language, computer language and every other technological language that is invented, or will be.

The department should teach the students, how to make and give presentations, hold seminars, arrange conferences, workshops and to learn the use of computer and advanced communication technologies. The department should also promote the research culture and motivate the students to conduct research on social and professional impact of new technologies and study the role of computers, satellites, advanced telecommunication etc.

To prepare students for the challenges of world which has become a global village due to high technology it is believed that all forms of information will become essentially identical; a course of critical issues in journalism is essential which can emphasize on ethics and historical themes but can also deal with the changing economic and

technological environment. So there's a context for understanding the world that the student is going into.

The department should try to set standards for our students so that when they get into positions of leadership they know in their being what good and great journalism is. Technologies in classroom (internet, videos) are inevitable and there are a lot of good potentials for technology in education but at the same time there are a lot of limitations and further, it is neither simple nor cheap. Willis (1995) narrates that the new media forms will also affect traditional critical thinking skills. Telling the difference between truth and lies has never been an easy matter, but it did seem easier then we were reading claims instead of being subjected to a multitude of fleeting images- many having a screen life of only a few seconds, or even fraction of a second. (p. 20). Thus departments of media studies should make one of their goals to teach students discern truth from lies.

Universities/Colleges education departments often lack resources and simply do not have the money for upgrading computers and other technical equipment. It is recommended that the departments should try their best to get funds for equipments. Another is that some faculty members may themselves be unfamiliar with technology as a teaching tool, and are unable to teach those skills to the incoming students. Therefore, if there is technical equipment in the classroom, teachers should be taught how to use it.

In spite of all this it is strongly recommended that a sound internship programme should be initiated with media industries (PTV or private channels, radio, newspapers, magazines, advertising agencies etc) to enable the students to learn the job skills.

Conclusion

Despite the efforts to embrace the third communication revolution, media education in Pakistan is still text-based. There is a dire need to use the participatory and learn to do approach. In fact, a much bigger investment in information technology is necessary by the institutions of media studies so that they can produce such media practitioners who can face toady's challenges.

Further, adequate educational and training facilities are required to supply personnel for the media and production organizations, as well as managers, technicians and maintenance personnel. At the same time, educational system should prepare young people for communication activities. Introduction to the forms and uses of means of communication (how to read newspapers, evaluate radio and television programmes, use elementary audio visual techniques and apparatus) should permit the young to understand reality better and enrich there knowledge of current affairs and problems.

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