



COMMONWEALTH *of* LEARNING

PERSPECTIVES ON
DISTANCE EDUCATION

Educational Media in Asia



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Usha V. Reddi and Sanjaya Mishra, Editors

Published by the
Commonwealth of Learning, Vancouver, 2005

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The Commonwealth of Learning (COL) is an intergovernmental organisation created by Commonwealth Heads of Government to encourage the development and sharing of open learning and distance education knowledge, resources and technologies.

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Usha V. Reddi, Ph.D. and Sanjaya Mishra, Ph.D., Editors

ISBN 1-894975-15-4

Published by:

COMMONWEALTH *of* LEARNING
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PREFACE

Educational media have the potential to transform the process of teaching and learning. We have seen their impact most dramatically through the emergence of large distance-teaching universities (open universities). Asia is home to most of the world's mega-universities (open universities with over 100,000 students). We can learn much, in particular, from the way that these institutions deploy a variety of educational media that include radio, television, teleconferencing, interactive radio, multimedia and the Web. The evidence shows that media have been effective in enhancing the scale and scope of learning, which in turn has made it possible to achieve other social and economic development goals.

The Commonwealth of Learning (COL) seeks to share this Asian experience by documenting the developments that underpin it. Accordingly, COL invited educational media researchers, practitioners and policy-makers to contribute to a volume on educational media in Asia as part of its series: *Perspectives on Distance Education*. The Commonwealth Educational Media Centre for Asia (CEMCA), a unit of COL based in New Delhi, led and managed the project.

The monograph has three sections: Country Profiles, Research Reviews and Case Studies. The five country profiles describe the use of educational media in Bangladesh, India, Malaysia, Singapore and Sri Lanka. The research reviews document and analyse Asian research in three main areas of media application: audio (including radio and interactive radio), video (television and teleconference) and computer-related technologies (computers, multimedia and e-learning). The final section of the book presents six Asian case studies, of which two are from non-Commonwealth countries.

The collection captures the variety of experience gained and of lessons learned in using educational media in Asia. Singapore, with its well-established policies of educational use of Information and Communication Technology (ICT) is at one end of the spectrum. At the other is Bangladesh, where the use of educational media remains at a nascent stage. The notable success of some of the open and distance learning institutions in the region – such as the distance education initiative of the Indian Institute of Technology Bombay, a premier centre for technology education – stands out. However, in view of the prominent role of open universities in Asia, there is actually remarkably little worthwhile research on educational media in the region. Asian institutions should make research on media applications a higher priority.

The Commonwealth of Learning had the good fortune to enlist 23 authors to contribute to the book's 14 chapters. We were also privileged to have two editors, Dr. Usha Reddi and Dr. Sanjaya Mishra, whose profound knowledge and experience of educational media in the region shaped and enriched the content. I hope that this publication will stimulate

further success and innovation in educational media both in Asia and more widely. Today education faces challenges on such a scale that only the intelligent and appropriate use of media and technology will allow us to satisfy the aspirations of the millions who thirst for learning.

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EDUCATIONAL MEDIA IN ASIA: AN INTRODUCTION AND OVERVIEW

Usha V. Reddi

Discussions and debate arise whenever a new communication medium is introduced in society. Early developments in print technology brought about a revolution in education. Similarly, radio and film caught and held the attention of policy-makers and scholars until the end of World War II. At the end of the 20th century, television (when new information and communication technologies shifted attention away from the established media of radio and film) opened up a new debate that lasted for nearly half a century.

Yet, no medium has ever replaced another. Each has found its own niche. Print remains the backbone of both conventional and distance learning efforts worldwide. Educational and instructional television played a pivotal role by “providing a window to the world” for many who were otherwise denied such information and knowledge, and by ushering in societal changes. The collapse of educational television led to a renewed interest in small media. Community radio using low-power FM transmitters has underlined the success that can be achieved when “narrowcasting” blends with locally relevant programming.

Even in the face of contradictory findings from the field, educators have been among the first to use the potential of media for education. This has spawned an entire discipline of educational communications and the new profession of educational technologists and instructional designers. There are protagonists who aggressively promote the role of media in education, citing as their evidence the huge success of farm radio in the U.S., Canada and some developing countries such as India. The example of Mexico’s Telesecundaria is widely quoted as a case of successful application of television in education.

Then there are the “disbelievers,” those who essentially argue that media are excellent entertainment tools — and therefore ill-suited for delivering education. There does not seem to be much clear-cut evidence providing a direct cause-and-effect relationship between exposure to content through a given medium and learning gains and outcomes. The disbelievers feel strongly that media cannot replace, simulate or even imitate the teacher in the classroom. Implementation problems on the ground have also led many people to question the wisdom of large investments in technology applications in education. For instance, as Ninan (1992) writes:

“In spite of all good intentions, most of the SIET [State Institute of Educational Technology] programmes are more often than not incompetently made, the teachers who show this to the children are completely clueless even about basic methods

of teaching, and the discussion materials that are supposed to reach these remote schools before these programmes are aired, never reach at all. Yet the children have benefited academically, possibly because in the wasteland that many rural primary schools still are, any kind of intellectual stimulation makes a deep impression in the children's minds."

We are, then, caught in the continuing debate on the use of communication media in education. While there are different ways of examining the role and effectiveness of media in education, scholars and educators have generally tended to do it from the perspectives of their own parent disciplines: psychologists have probed individual effects, sociologists have studied effects within social contexts, political scientists have shown concern for political effects of mass media, and educators have hoped to perform miracles with mass media in areas where conventional systems have been unable to cater to, and cope with, learners' needs. Each discipline has brought its own special tools to the scholarship, little recognising that educational media is itself a new emerging discipline with its own pedagogy and grammar and therefore requiring a different perspective and, definitely, different tools. For instance, what kind of tool do we use to distinguish between learning from the content of a lesson to learning from its format of delivery? Consider an interactive e-learning lesson on driving safety: how do we distinguish the impact of the content from the way in which the lesson is delivered?

When studying the effectiveness of media to serve educational needs, we often get caught in the trap of looking through the differently coloured lens of the aspects we are studying. Those aspects include: audience characteristics, organisational factors, media environments, audience research, programme-specific factors and infrastructure factors. Alternatively, we can examine media effectiveness from the perspective of Bates's model, ACTIONS — access, costs, teaching function, interactivity, organisation, novelty and speed (Bates 1995).

What should we be concerned about while talking of learning gains and outcomes from the use of media in education? Ideally, as educational technologists, we would like a situation where whatever we produce has the desired effect. We would like to know that the television lesson or e-learning course has served its clearly defined learning objective, that it is possible to distinguish between content and the medium of delivery, and that such information and knowledge come from research findings emerging from end-users/learners.

The debate continues because more than half a century of research in media development and education has not yielded any conclusive results about the relationship between the two. It has been a mixed record — of stupendous successes and miserable failures. However, research broadly shows that at least three different types of effects require study: medium or displacement effects, content effects, and audience effects.

Medium Effects — "Medium effects" refers to the reorganisation of activities that takes place with the introduction of new media. In simple terms, this means the reallocation of time given to media and other activities. Because media use depends to a large extent on available leisure, time spent with the media may be a reduction in time spent on other work and/or on social activities such as conversations with peer groups, outdoor recreation and other unorganised activities. For distance educators, the use of media to supplant or supplement other educational activities means that the learner has to take time out to engage with the medium of learning. And, as Venkaiah (Chapter 12) reports in his case study on the use of television in B.R. Ambedkar Open University, telecast timing of educational programmes of that institution proved a major disincentive in their use, because learners had to disrupt other activities in order to attend the medium.

Within developing countries, availability of, and access to, media also constitute powerful variables in the media/audience relationship. Variations in media access are likely to be the single most important predictors of media exposure, use and effect, leading to the “knowledge gap” as posited by Tichenor et al. (1970) and Shingi and Mody (1971), which in contemporary language is termed the “digital divide” when applied to new media. The implication here is that learners from more economically advantaged families will have better exposure to the selected media and will be able to absorb more than their less-advantaged peers, and will derive different gratifications from the same media, if exposure is held constant. It is, therefore, all the more necessary to match access and content to audience needs if there is to be greater effectiveness in a desired direction.

Content Effects — Socio-economic factors are the best predictors of media content preference and effect. Print media form the backbone of school experience and audiovisual media are fast being used in classrooms. Many studies in the use of educational media have shown that, under proper learning conditions, learning through media is very successful. And in developing countries, many controlled experiments in educational use of mass media have yielded significant results. Studies by the National Council for Educational Research and Training (NCERT) and the Satellite Instructional Television Experiment (SITE) experiment in India are cases in point described by Agrawal (Chapter 2) and Chaudhary and Panda (Chapter 7).

Audience Effects — The most important and widely accepted belief today is that audiences attend mass media because they want to, and they devote a specific amount of time to this activity — it is a conscious decision taken in the face of competing alternatives. Exposure to media is not a passive activity, with the learner member being no more than a sponge to absorb all messages. As a result of exposure to multiple sources of entertainment and information, audiences become purposeful media users. Just as school textbooks are not the only source of information about the world for children, radio-listening or television-viewing also takes place in a societal context and is not passive. Such findings are emerging from studies in today’s interactive media. Purposeful viewing implies a choice between equally attractive alternatives: if the medium or medium content fails to meet the latent need or desire of the viewer or learner, he or she is likely to opt for another media-related (or unrelated) activity. And it is the user or learner, not the producer, who finally determines the effectiveness of any medium or its content in meeting its predetermined objectives.

The purpose of the preceding discussion on the outcomes of research in media and in education is to provide the framework for an introduction to this volume. A wealth of information is available in conventional books and journals about the effects and effectiveness of media on audiences. I remember a time early in my career when, undertaking a survey of literature on media effects on adolescents, I found, to my dismay, that more than 1,500 studies were carried out during an average year — and sifting through those studies was a monumental task. Today, with the explosion of Internet and Web-based technologies, an Internet search would probably yield more than a 100,000 entries. Narrowing down our search to educational media and media applications in education would still leave us with a daunting task.

Much of the existing research in the use of media in education (in all its dimensions and levels) is carried out in developed countries. Such research forms the backdrop of current debates on the use of information and communication technologies (ICT) to meet educational needs, not merely of resource-rich communities but also of the poor and the marginalised in the developing world.

Understanding the broad relationships between education and communication media is also important to help the reader place the two within a broad context of the educational

media scenario in Asia, a continent that presents some of the greatest social, political, economic and developmental diversities. Asia is a region of great disparities. On the one hand, it has economic and information technology (IT) powers such as Singapore, Malaysia and India. On the other hand, it is the region with the largest population of illiterate and poor in the world. It has countries such as Bangladesh, the focus of developmental efforts of donor agencies, and India, one of the fastest-growing economies in the world despite its burden of a population of more than a billion. Maldives is a country that reflects all the strengths and the problems of small states; Sri Lanka reflects the pulls and pressures of ethnic diversity; and the Philippines and Indonesia reflect both the richness and the complexities of large, dynamic, transitional societies.

Yet all these nations of Asia have been test beds for developmental and media initiatives in education. Mega open universities and correspondence course institutions in India, the successful micro-credit experimentation in Bangladesh, community-based development in Sri Lanka — all of these initiatives bear witness to educational and media developments in Asia.

Much current knowledge of initiatives in using media for education, as found in literature, describes projects and activities. However, it does not provide a complete picture of any one country. While first-hand exposure has been gained by individual experts, there is neither a comprehensive profile of a country nor a dispassionate description and evaluation of some of these projects. Recognising that a periodic scan of country profiles, research reviews and case studies was essential in helping us understand the range and kind of educational media activities out there, we undertook to commission several authors from selected Asian countries to contribute to this volume. We hope that by requesting input from Asian scholars and educational media practitioners we will be able to gain the kind of insights that only first-hand experience of work in the region provides.

We divided the discussion we sought into three broad sections, all relating to educational media applications in the countries: country profiles, research reviews and case studies. The contributions of several authors reflect as much the diversity of the region as they do the individual country's priorities and directions in the application of educational media. The contributions also reflect the disparities in the region vis-à-vis availability of information about national policies, activities and initiatives. For instance, little is known about Maldives' efforts in the area of educational media; Pakistan's experience is missing, since at the time of organising this volume, it was difficult to establish communication between India and its neighbour. India, Malaysia and Singapore dominate the contributions, both in terms of numbers and in the sheer diversity of research and case studies.

The contributions also reflect national perspectives. Singapore and Malaysia, for example, have stressed IT-enabled education, both for producing and distributing material and for ensuring access to IT for learners. India's stress, on the other hand, has been in the use of radio and television for formal, non-formal and distance education. This reflects its effort to ensure national access to the widest possible geographic and cultural regions and group, as well as its technological superiority in satellite applications. Sri Lanka's experience is that of a small island-nation, husbanding its resources and trying to ensure that education is delivered with little loss of cultural and linguistic identity. Bangladesh, although a country with limited resources, is trying to optimise use of technology for educational purposes.

In Part I of this volume are five country profiles. These describe, respectively, the education and educational media scenario in Bangladesh, India, Malaysia, Singapore

and Sri Lanka. The applications of educational technologies reflect the dynamics of each country.

In Chapter 1, about Bangladesh, Monira Hossain of Bangladesh Open University begins by providing a broad overview of the country and its people and the place of education as a national priority. She points out that a major initiative of Bangladesh Open University has been addressing inequality in the educational system of Bangladesh, not merely at the tertiary level of education, but more importantly at the school level through open school. Most distance education programmes, whether in the public or private sector, depend heavily on print as the basic mode of delivery, given problems of access to electronic media and low teledensity. However, electronic media support for education has been in existence since 1956, when it was started as a small project. Today, this support is provided by the national radio and television service, with some educational programming coming from the facilities of Bangladesh Open University. Internet and Web-based technologies are yet to make any major headway. It is an irony that Bangladesh, surrounded as it is on three sides by India, has yet to benefit from the advances made by its neighbour in the field of educational media applications.

India's country profile is by Binod C. Agrawal (Chapter 2), an active participant in many of India's pioneering educational media applications. While India's work is very comprehensive, it must be seen alongside the research reviews on radio and television and the case studies by other Indian scholars (Mishra; Chaudhary and Panda; Venkaiah; and Arya, Krithivasan and Iyer). The grand nature of Indian experimentation, from early radio to television, through the SITE experience in the 1970s to today's operational use of television and teleconferencing as critical components of formal and distance education, reflect both the dimensions of the problem and the solutions identified by the polity to address such problems. The research reviews and the case studies underline disturbing findings — of poor attendance and limited effectiveness of such grand operations; of the need for attention to quality and detail; and of the absence of conclusive findings on the relationship between the medium, the content and the learners.

Malaysia's experience with media applications (Chapter 3) shows how a vision can be translated into practice, especially when such a vision is backed by political will. The country profile, by Rozhan M. Idrus, describes Malaysian policies and initiatives and notes that the focus is much more on new media in Western Malaysia, while educational television programming provides some support in Eastern Malaysia.

Singapore (Chapter 4) has a master plan to integrate IT in schools so that, over the plan period, technology can be used to support both teachers and learners. By 2000, the teacher: computer ratio was 2:1 and the student:computer ratio was 5:1. Given such IT penetration, Cher Ping Lim points out that Singapore has moved quickly to provide e-learning opportunities for meeting diverse needs. It envisions a common pool of customised tools and approaches for organisations to use, thereby enabling Singaporeans to assemble, disassemble and re-assemble learning resources as per their needs.

The focus of technology-supported education in Sri Lanka (Chapter 5) is largely through its distance learning system, report Shironica Karunanayake and Rupa Wijeratne in their country profile. Both the national radio and television systems do provide some educational programming (locally produced and imported). There is also some production of educational programming in public-funded institutions such as the National Institute of Education and the Open University of Sri Lanka. The country is moving toward greater use of Internet and computer networks for learning; and the Lanka Educational Academic and Research Network, a facility started in 1990, connects all major educational and research and development institutions in the country.

We cover three major media in Part II, the section on research reviews. Audio, radio and interactive radio (Chapter 6), reviewed by Sanjaya Mishra, constitute the first review of research. Sohanvir Chaudhary and Santosh Panda review the use of educational television and teleconferencing in the second review article (Chapter 7). The third review (Chapter 8), by Paul Kawachi, focuses on computers, multimedia and e-learning and explores the available experience and research in the application of computer-based multimedia and e-learning in education.

Part III of this volume describes some new initiatives undertaken in different countries of Asia. How India's Indira Gandhi National Open University has planned its media strategy so that access is ensured to students through multiple channels is explained in Chapter 9 by Ramesh Sharma and Suresh Garg. A similar effort by a state open university — the B.R. Ambedkar Open University — is discussed in Chapter 12) by V. Venkaiah. Kavi Arya, Saraswathi Krithivasan and Shyamala Iyer describe their efforts to use satellite-based conferencing for technical education in Chapter 13, while Hisham Dzakiria and Zuber Hassan describe Malaysian applications of ICT to reach remote teachers for professional development in Eastern Malaysia (Chapter 11). Melinda dela Peña-Bandalaria describes the development of e-learning at the Philippines Open University (Chapter 14), while Tian Belawati, Dewi Padmo and Edward Sinar discuss the efforts of Indonesia's Universitas Terbuka on media usage in Chapter 10.

In planning and preparing this book, we had to confront several realities:

- First, this will be neither the first nor the last exploration of a much-debated theme. Volumes have been written about different aspects of deploying media technologies for educational purposes. Many have described various technology-related experiments.
- Second, we found that many descriptions of technology application in education have been undertaken from the perspective of the implementing agency and rarely from the perspective of research. These descriptions often painted glamorous pictures and spoke of the grand success of the projects. The question that comes to mind is: If the picture is so rosy and if so many projects have succeeded, why are we still lamenting the failure of media to deliver educational services? Why the ongoing debate on the relevance of using media in education? Why are advertising campaigns so successful, when educational campaigns using the same media make no significant difference? In most instances, we found an inadequacy of research findings, both in terms of numbers and the range of themes and countries covered. We chose, deliberately, to address this gap and to undertake not reviews of cases, but reviews of research undertaken by scholars and practitioners in the region. The result, we admit, may be patchy, but it is necessary if we are to learn from our successes and failures.
- Third, we were confronted with the fact that, until the recent convergence of interests between e-business and e-learning, the corporate sector has not been interested in education, except perhaps where some companies have looked to providing in-service training of their own employees. Education and the provision of skilled manpower for the economy have largely been seen as the purview of government. Efforts to use media in education have largely emerged out of public funding and donor support, while governments have engaged with the issue of providing basic, non-formal and formal education to various population segments. The inability of public sector educational systems to deliver “employable” graduates has been responsible for the corporate sector's stepping into the realm of education.

With globalisation, and with educational services entering the ambit of World Trade Organisation negotiations, the corporate sector has awakened to the potential of education as a business. Many global institutions have also recognised the enormous potential of IT-based technologies to reach markets of learners in developing countries. The mosaic of activities in technology-enabled education is very complex and we felt that stocktaking of public sector efforts is an essential first step. We hope to undertake such a review of corporate sector initiatives in a later volume.

This volume of five country profiles, three research reviews, and six case studies is only the beginning of our regular effort to scan, monitor and review the Asian educational media and technology scenario. We are grateful to the large number of individuals and staff at institutions who spared their time and allowed us access to resources so that we could undertake this first exercise.

We look forward to our readers' feedback, which we hope will help us identify the gaps in our effort and address them in future volumes.

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