Technical Evaluation Report

62. The Return of Educational Radio?

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Abstract

This paper examines one of the traditional technologies of distance education, radio, and presents examples of educational and community radio usage in Asia and Africa. Instead of merely transposing western approaches to distance education in developing countries, it is suggested that the developed world can learn from uses of radio in developing countries, and that the medium deserves greater attention as a means of giving educational opportunity to rural, isolated peoples worldwide.

Keywords: distance education; radio; Asia; Africa

Introduction

Throughout its overall history in developed nations, distance education (DE) has flourished in the spirit of social betterment and integration. Only in recent decades has DE become a tool for individual or commercial betterment in learning institutions and corporate training. In the mid 20th Century, Canadian movements such as the *National Film Board* and the *National Farm Radio Forum* were popular means of providing basic adult education to those living in remote geographical areas, and of instilling a Canadian education to new members of society (Selman & Dampier, 1998). In the 1960s, these programmes suffered major budget cuts and lost their perceived social importance. Since then, DE initiatives with a more individualistic scope have emerged, designed primarily to fulfil the need for individuals to be retrained for new careers or for personal motives.

In the United Kingdom similarly, The Open University (OUUK) was established in 1969 with the objective of making education accessible to lower-income adults who would not normally be able to access academic institutions (The Open University, 2004). In the 1980s and '90s, the OUUK's mandate evolved to meet the part-time higher education needs of employed adults. In its strategic planning document, the OUUK claims to be socially conscious, aiming to serve developing countries and reduce the digital divide. This university openly admits, however, in the same strategic document, to a decreasing UK market (The Open University, 2008). It is feasible, therefore, that the OUUK's current global vision is based on market motives rather than actual

social and political vision. This shift from a community-based DE vision to a individual-based mandate has not taken place in developing countries, however, and the traditional DE media remain appropriate, affordable, and accessible there, while being almost completely forgotten in western DE. The current paper stresses the value of educational and community radio in African and Asian distance education, and the uses it could also play in today's western style of DE. In this way, the paper attempts to counter-balance the common emphasis on the export of DE technologies from developed nations to the developing world, and to indicate that there are lessons to be learned about DE practice on all sides.

Radio in Asia

Educational radio is the term given to the medium's use in formal learning systems, whether primary or higher education. It is typically used as a means for course material delivery, and often integrated with various kinds of interaction: for example, in classrooms, discussion groups, or via the telephone. Community radio, on the other hand, involves informal learning processes whereby communities plan, own, and operate their own radio stations. The informal learning topics of community radio typically include child nutrition, family planning, and agricultural tips. Community radio necessarily involves a non-profit enterprise, community ownership and participation, and usually a participatory approach to learning (UNDP & UNESCO, 2004). Most community radio material is in the local language and includes song, stories, and drama. It provides a fertile educational terrain, allowing people to "hear about the lives and circumstances of the poor and excluded in words and terms that they themselves use. Radio, by nature, gives us the ability to 'hear' content, context, passion and pain" (Gray-Felder, in Dagron, 2001, p. 2). Dagron further contends that radio is the "most often utilised and successful medium for social change" (p. 2). For Freire, "ordinary people, not just talented leaders, can and should be agents of change" (Kane, 2001, p. 7); and radio is an obvious medium for catering to such change by allowing ideas to be shared and beliefs critically questioned.

The two forms of radio are thus quite distinct in nature and serve needs, educational radio providing basic or advanced education and community radio enabling informal learning and social transformation. Community radio typically draws on local cultures and is of a participatory nature, whereas educational radio generally has a national/ institutional character. Ultimately, both aim to improve the quality of life. This may be seen in an examination of educational and community radio initiatives in Asia.

An exemplary instance of modern educational radio in Asia is a community radio station in the rural area of Kothmale, Sri Lanka. The station was started in 1989 by the Sri Lanka Broadcasting Corporation to provide communication facilities to 3,000 families displaced by the construction of a dam (Dagron, 2001). Through sponsorship from UNESCO, the University of Colombo and others, the radio station project was expanded in 1998 by the addition of an Internet component. Three Internet points were established, so that the radio could serve as a bridge between the World-Wide Web and the rural community in central Sri Lanka. Regular radio programmes relay information located on the Internet and of interest to the local people. In addition, listeners call in with queries, and the station staff searches the Web for answers. Due to the expertise its staff members have acquired in Internet usage, the radio station now has its own website in three languages.

As a result of this innovative radio/ Internet project, community members in Kothale have begun to build webpages in the local languages, and to provide their youth with training in Internet skills. Computer usage at the Internet points has been quite high with, on average, approximately 200 users accessing the service's two computers during any 14 day period (Pringle & David, 2003). Organisational and financial issues commonly hinder the radio station's smooth operations, however, including the frequent interruption of the Internet supply. Pringle and David conclude that the overall impact of Kothmale Community radio is difficult to assess, although it has given rise to a "dramatically increased awareness of the benefits of new community technology" (p. 110). Dagron notes that young people and English speakers have been the principal beneficiaries of Kothmale's hybrid technology. The model bridges traditional technologies with the most modern, taking advantage of aspects of both. Its successful 20-year survival operation in Sri Lanka may partly be due to Sri Lanka's high literacy rate.

Radio has also been extensively used in India for primary, secondary and higher education purposes as well as informal learning. Its first applications were in the Farm Radio Forums of the 1950s, which placed "radio on the educational map of India" (Mishra, 2005). It was shown that those who participated in the listening groups at the Poona radio forum learned more about agriculture, health and literacy than those who did not. In primary school education, radio was found most effective in the acquisition of factual information, commonly via story and drama formats. India has also experimented with the use of hybrid, 'radio-vision' technologies in middle-school education. This consists of the combined use of radio and text support, and has been found to be particularly effective in subject areas such as geography and disciplines requiring graphic illustration. At the Indira Gandhi National Open University (IGNOU) established in 1985, radio has been extensively used (Agrawal, 2005); and since 2001 an Indian educational radio network, *Gyan-Vani*, has been extensively used for university-level and other educational programmes (Chandar & Sharma, 2003).

Community radio projects sponsored by UNDP and UNESCO have been particularly successful in rural India. In Pasatapur, for example, an NGO named *Deccan Development Society* has used radio to organise illiterate and marginalised women in the community (UNDP & UNESCO, 2004). Village associations have emerged as a result of local radio projects. Despite the success of community radio in involving women in participatory activities, a major obstacle to its development is the licensing hurdle caused by the fact that the Indian Government has yet to provide a legal framework for community radio. The legislation passed in 2002 allows community radio to be established solely in educational institutions such as universities and technical schools.

Despite the popularity of India's radio initiatives, the medium has never received the political attention required to make it widely successful; and it has played a marginal role compared with that of educational television (Mishra, 2005). Currently, India is placing much emphasis on the development of DE Internet technologies; and this is increasing the educational access gap between the privileged classes and the poor and rural sectors of society (Agrawal, 2005). China, on the other hand, has implemented educational policies since the 1960s which made primary and rural schooling compulsory (Gulati, 2008), and has implemented radio and TV programmes for primary schools up to year nine in rural areas. At the university level, the Chinese Radio and TV University system (CRTVU) was developed as part of the government's economic reconstruction and in the effort to build up the national workforce (Rumble, 1989; Hodes, 1995). The CRTVU is an hierarchical system with five tiers whereby course material is primarily developed by the central University and programmes are delivered by regional universities and colleges.

Transmission of class material is via radio or TV to tutorial groups of approximately 40 students in local centres.

Despite efforts to reinforce rural educational systems, however, rural schooling in China has suffered from poor teacher quality and shrinking government budgets. Overall, as in India, the successes of educational radio in China have been overlooked and the movement has been allowed to wane, spurred by the promise of new technologies such as TV and the Internet, and by a general lack of investment in rural education, which is the main target of radio programmes. Gulati (2008) highlights the disparities between urban and rural, men and women, and the privileged and non-privileged, caused by the targeting of investment in Internet-based education methods on the more advantaged groups. Hence, the rural poor lag increasingly far behind the urban learners in both India and China; and yet, as Gulati indicates, "printed material, radio, and television remain more effective and accessible for rural and disadvantaged groups" (p. 12).

Radio in Africa

By comparison with Asian nations, African countries are at a more rudimentary stage of development in their educational practices, policies, and uses of educational technologies. In Africa, there is far lower TV coverage and fewer TV sets than in Asia, decidedly less Internet access, fewer fixed telephone lines and limited computer access (see Table 1). Today, the most appropriate models for improving economic and social conditions in Africa are thus the earlier uses of radio in contemporary Asia and mid-19 Century Canada. Insights into how the models of radio for DE and community radio in Asia have been creatively applied in Africa can be gained from examples of *interactive radio instruction* (IRI) in Kenya and Mali.

Table 1. Technological usage in Asia and Africa

	Asia	**Africa**
Population	3.9 billion	923 million
	(59% of world population)	(14% of world population)
Gross Domestic Product	$3,197	$1,079
Fixed telephones	48% of the world's total	<2% of the world's total
Cell Phone subscribers	1,137 million	198 million
	(29% of its population)	(21% of its population)
Broadband subscribers	104 million	1 million subscribers
	(2.6% of its population)	(0.1% of its population)

(Source: International Telecommunication Union, 2007).

IRI was first used in Africa in the '80s, to develop a Radio Language Arts (RLA) programme in Kenya for first to third grades (Moulton, 1994; Dock & Helwig, 1999). The IRI lessons were very structured, with timed pauses for chorused replies from the class. They also incorporated time for individual questions and comments. The RLA programme relied extensively on stories, games and songs, and engaged the students in learning by stimulating their fantasies. The basic structure of the lessons was that of a conversation. The IRI approach has since been equally useful in approximately 20 developing countries in Africa, Asia, and South America. It is largely used to

improve the quality of education when teacher training is low or when there is a teacher shortage. Lessons are transmitted by an initial teacher via radio or audio cassettes to classrooms where a supplementary teacher manages the student exercises, class discussion, and follow-up. Exercises and interactive activities are scheduled during pauses in the audio programme. Bosch (1997) showed that IRI can increase learning and improve test scores, and is useful in bringing rural children up to the level of those in urban schools who have access to better teachers and materials. Bosch (2004) has stated that, since the early 1980s, the sustainable success rate for IRI projects has been 66 per cent. This is quite exceptional given the common challenges encountered by DE initiatives in developing countries.

In relation to the informal learning context, there have been numerous long-standing rural radio projects in Western francophone Africa. The rural radio movement started there in the mid 1980s with the goal of reaching people in previously inaccessible rural communities. UNESCO, UNDP, and FAO were major contributors to these projects, and many of them are now self-sustaining. In Mali, there are currently approximately 120 to 150 such radio stations (Del Castello, *personal communication*, 2008).

A key enabler of the rural radio movement in Africa has been the liberalisation of radio waves, although some countries (e.g., Namibia, Uganda, and Zambia) provide rural radio programmes from a centrally controlled radio network. Many local stations are enhanced by Internet connections, as in the Kothmale, Sri Lanka, initiative. Listeners call in with questions, and a researcher finds the answer on the Internet and reports them via radio. This provides non-literate people with access to a wealth of information. In addition, local radio stations in certain locations can pick up broadcasts from Radio France via short-wave receivers and retransmit them on their local stations. These initiatives are usually self-sustaining, generating income through publicity, announcements, and on-air events such as weddings. Agricultural producers pay to make announcements about, for example, sales prices and market days. The IRI initiatives of Kenya and the rural radio projects of West Africa, indicate that some African countries have a rich tradition of both educational and community radio. The overall goal of these rural radio initiatives is one of social awareness and change (Ilboudo & del Castello, 2003).

Radio in the West

It cannot be assumed that educational and community radio is entirely defunct in western nations. In Canada, for example, the medium is still integrated in a declining number of DE and informal learning programmes; and some programmes on National Public Radio in the United States may be regarded as for informal learning purposes. An example of radio use in formal DE is a successful and innovative radio-based programme launched in the 1990s in Wahsa, Northern Ontario, for the estimated 70-90 per cent of First Nation members in Canada who lack a high-school diploma (Bird & McKinnon, 2004). The initial problem of high school attendance in Wahsa was largely due to the absence of local high schools, which meant that students needed to move to other areas of Canada, where they invariably felt out of place. This lead to frequent school dropout as the students returned to Northern Ontario. The Wahsa initiative targeted approximately 900 secondary school students in 23 isolated Canadian communities (Fiddler, 1992), and has enabled students to remain in their homelands by 'attending' secondary school via radio, text and local classroom facilities. Students call their teachers toll-free and supplement their learning from radio and text materials via meetings in local centres. The curriculum is well planned and includes one of the native languages, Oji-Cree.

The success of the Wahsa radio initiative can largely be attributed to the collaborative manner in which it was designed by the tribal councils and native-run organisations familiar with local issues. Despite its long-standing success, however, difficulties have arisen in the project including irregular on-air participation by some students, the need for additional learning centres, and the lack of constant DE coordination.

Conclusion

Thomas (2001) states that: "In many areas of the world, radio is still the only medium through which educators can reach a mass audience, simultaneously and at relatively low cost" (¶ 5). Dagron (2001) adds that it is not only an important mechanism for the diffusion of development information in local languages and over widespread and remote geographical areas; it is also a great tool for reinforcing and strengthening cultural expressions and identities. Radio alone will not solve the problems of educational delivery to remote, rural people in the developing world. As Baggaley and Ng (2005) have indicated, there is no single formula for DE in developing countries. Empowerment of ministries of education, higher educational priorities, improved teacher training, the implementation of sustainable programmes, and particular attention to the needs of rural areas, are all necessary steps to this end. Yet radio, if used effectively, can be a powerfully motivating and low-cost educational technology capable of sustaining the oral tradition of indigenous people and cultures. The medium reaches large numbers of people, and allows learners to remain in their own home settings without having to relocate for schooling. It can also protect the heritage of minority languages; and it is accessible to illiterate people.

Radio has its drawbacks, of course. In its original form, it is essentially a one-way communication medium whereby interaction with listeners is minimal. As a result, a radio programme's pace is primarily that of the broadcaster, who can find it difficult to gauge the listeners' prior knowledge and attitudes critical to learning. To compensate for these drawbacks, radio presentations can be packaged with visual and print materials; interactive elements can be organised via listening groups and tutorial classes; and radio cassettes can be used to minimise scheduling problems. As suggested by Dagron (2001), radio can also be combined with Internet techniques. As in the examples of Sri Lanka and West Africa, radio and Internet methods allow communities to embrace the newer technologies and assist illiterate people to gain general knowledge. Due to its wide usage in certain countries and the scarcity of other technologies there, radio clearly has the potential for a significant impact in all societies. The years of experience in Asia should be embraced and shared in Africa; and lessons may be learned from these innovative social initiatives in the developed nations also. A rich diversity of various solutions is necessary to meet the different DE challenges of the international community; and radio should not be overlooked in the mix of emerging approaches.

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