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Future Manifestations of the Old: Exploring the Potential of Radio Learning in Building Social Capital in Malawi

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Introduction

Around the world, schools and the societies of which they are a part are confronting profound challenges. The kind of public education that was designed for an age of heavy manufacturing and mechanical industry is under challenge and fading fast as we sail into a world of 'globalisation, high technology, flexible workplaces, more diverse school populations, downsized administrations, and declining resources' (Stoll & Fink 1996 p.53).

A rapid response in the provision of high quality education at all levels is urgently required of educational communities and governments. Hence, universal primary education has been registered as a top priority on the agenda of the international community in the modern era. To this effect the United Nation's goal is to ensure that by 2015 all children, particularly girls, children in difficult circumstances and those belonging to ethnic minorities, have access to and complete free and compulsory primary education of good quality (Unesco, 2000). Although the driving force behind the international community's Education For All (EFA) initiative has been economic factors, more concern is now being placed on the wider benefits of education - for example, the creation of social networks which in turn reinforce people's aspirations to learn. The benefits of education and, by extension, the benefits of educational technology, are now being seen with increasing awareness of the problems of focusing unduly on narrow interpretations of human capital and on investment on the supply side. Education For All can be viewed as a conscious effort by the international community to expand individuals' participation in local social structures for achieving social capital - social networks, the reciprocities that arise from them, and the values of these for achieving mutual goals (Schuller et al., 2000).

Although the concept of social capital may be relatively new, the idea that social networks matter, along with the norms that hold them together, is hardly a novelty. In a society like that of Malawi, where so much economic activity is not yet monetised and extended family ties are primary, social capital describes activities familiar in everyday life - cooperation between individuals within their household and outside it to meet their everyday needs. Simply put, it is about getting things done. Given the African socio-economic context, it is first of all about getting basic necessities. In general, it very much relates to the Zulu proverb that has become a flag of the African sense of humaneness (*Ubuntu*) which says *Umuntu ngumuntu ngabantu*, meaning *a human being is a human being through other human beings*.

It has to be acknowledged, however, that the proposition that social capital returns 'tangible' benefits to its holders is still viewed as open to testing against evidence. What seems clear is that the concept is becoming quite influential and has attracted attention among policy-makers and others interested in it because of its practical applications. I will return to this later in drawing upon the empirical work of various scholars to explore the view that education through communication technologies that are cheap but dependable such as radio really matters in building or increasing social capital in communities of educational disadvantage. It is important to note that despite globalisation, the cultural and economic contexts within which social capital

exists and grows will always be very diverse. Since it is itself predominantly a characteristic of contexts, we can expect the visible character of social capital to vary correspondingly (Schuller, 2000).

A comprehensive review of the extensive literature relating to social capital is beyond the scope of this paper. Quite a number of reviews of social capital are now available. Not so many are devoted to the problem of finding ways of exploiting cheap, affordable educational technologies that are viable and dependable for increasing or even creating social capital in disadvantaged societies such as those in Africa, especially sub-Saharan Africa. Therefore the purpose here is to point up challenges faced by low-income communities where the literacy level is low and where access to modern information and communication technologies is non-existent, and to suggest ways of exploiting whatever form of technology is available under these circumstances as a way of facilitating high quality social interactions.

The starting point for this discussion is the new understanding about the link between education and social capital, in order to be able to investigate the role of educational technology for providing good universal primary education which in turn would lead to the increase or actual creation of a form of social capital beneficial to the Malawian communities in addressing the poverty alleviation. Overall this paper is about exploring the link between education and social capital, and how in practice the exploitation of ICTs for educational purposes could help in increasing social capital in disadvantaged communities of Malawi.

I propose that in the conditions of social deprivation, economic inequality and political disempowerment typical of most developing or Third World nations, there is an urgent need to implement effective technologies for educational advancement, using simple forms of media, such as the radio, which are not hugely expensive yet dependable. The potential that radio offers through interactive radio instruction (IRI) in raising the quality of education (formal or informal), in socio-economically disadvantaged communities is acknowledged. Beyond confirming the relevance of radio technology in improving educational standards, this paper probes deeper how such technology could be exploited to maximise benefits in building individuals' social capital through formal schooling. Using radio instruction for purposes of teacher support and development in primary schools is identified as critical to this process. Although the theme of lifelong learning threads throughout the discussion, the primary focus is on formal primary education.

Malawi: The social-economic and educational context

Malawi is situated in the southern part of the African continent, with a total land area of 119,140 square kilometres, of which 20% is covered by Lake Malawi. It is a landlocked country that lies between 9 and 17 degrees south of the Equator, and is bordered by Mozambique to the East and South, Zambia to the extreme West, and Tanzania to the North.

According to the 2005 Human Development Index, Malawi has not significantly improved its economic standing. The country is ranked among the lowest per capita income in Africa. Poverty is chronic and widespread; growth is disappointing. Several socio-economic indicators from international and government statistical offices are still showing that over 50% of the

population is below the poverty line. The country has few natural resources. Agriculture currently provides what little there is, but production is beset by degraded soil, erratic weather conditions and a system of land ownership and inheritance that does not encourage investment (DFID, 2003 p.2). According to VSO observations in 2002, the people have few productive assets, scarce opportunities to generate income outside agriculture, are poorly educated, undernourished and in poor health (VSO 2002 p.1). Not much has changed since then. Agriculture contributes 35-40% of the gross domestic product. The income per person is estimated to be around \$160 per year (Scotland & Malawi 2007). Three quarters of the 12 million people live in rural areas and earn a living as smallholders. Current statistics show that literacy level stands at 40%. Thus, even though strong tribal-based and familial social affiliations act as a form of social capital, alleviating poverty, among other social problems, remains a daunting task.

Being a landlocked country, and because of its limited natural resource base, poor physical and financial infrastructure, Malawi remains dependent on economic assistance from international financial institutions and external donors. The country was approved for relief under the World Bank Heavily Indebted Poor Country Programme in 2000 (VSO, 2002). This, plus change in government since 2004, is hoped to bring about positive reforms including some improvements in primary education. However, due to the limited fiscal and budgetary capacities of the government, it will be a daunting task to carry out educational reforms that will enable the construction of a knowledge society.

Schools in Malawi are constrained by poor resources, a consequence of the high levels of national socio-economic deprivation. The problem of inadequate resources is particularly serious in rural primary schools which constitute the majority of schools in Malawi. Education has a central role to play in combating social and economic deprivation: without a high quality education, the essential skills and knowledge necessary for economic growth, an enterprise economy and social progress cannot be developed. Most primary teachers in Malawi are under-qualified or unqualified in professional practice, and their own academic education may not have progressed beyond the Malawi School Certificate of Education (MSCE), the equivalent of the Ordinary Level of the Cambridge Examinations Board. Without well-qualified and professionally skilled teachers, high quality education cannot be delivered (Stoll & Fink, 1995). Thus Malawi, like most other African countries, finds itself in a vicious circle - poor economic performance and low standards of living mean under-educated and unqualified teachers who cannot provide the high quality education which could create the conditions for social and economic progress.

Perhaps one of the main obstacles to improving the standards of teaching and learning in Malawian schools is the lack of a basic infrastructure in communities and therefore in the schools which serve them. In many schools, there may be no access to an adequate water supply, and in rural primary schools there will almost certainly be no electricity. The implications for the use of computers and other technological media to support learning and teaching are obvious - they are quite simply, non-existent. In terms of educational technology, the situation may be described as a development gap - a digital divide of perhaps fifty years between North and South, between Europe and Africa, between Scotland and Malawi. This lack of access to even the most basic technological resources severely limits the range of teaching approaches available. This limitation is exacerbated by large class sizes - often as many as sixty students in

one class. The combination of poor standards of teacher education, non-existent technological resources, and large classes leads to predominantly traditional teacher-centred approaches in the classroom. These have little or no focus on the individual needs of students, and appear to contribute heavily to low standards of educational attainment. Politically, the Government of Malawi is committed to tackling the problem of continuing stagnation in standards of teaching and learning in its schools, but when hard budgetary choices have to be made in the allocation of scant national resources, school improvement, and specifically continuing professional development of teachers, has low priority.

If this vicious circle of deprivation and stagnation in educational standards in Malawi is to be broken, creative and innovative approaches to school improvement must be explored. New information and communication technologies have created enormous opportunities for access to knowledge and for new ways of working and learning. It is unrealistic to expect that schools with no basic infrastructure could jump immediately into the computer age and benefit from the sophisticated range of information and communication technology now available in many schools in the developed world. However, in many of these schools of the developed world, radio broadcasting was once widely used as a tool for formal education (Flemings, 2006). Reference has been made above to the fifty-year development gap between schools of the North and those of the South. It is in that context that this paper examines the potential of radio technology to provide education that would increase social capital within Malawian communities.

Education for social capital and/or social capital for education

Both education and social capital have recently attracted attention among policy-makers, academics and others. Education is seen as one of the important enabling factors for developing and developed countries alike in remaining globally viable. Global markets and technologies are a permanent feature of today's life. Surveys conducted in various parts of the world show that computer and internet education is reaching even the most remote communities faster than many would have expected (Vergas-Baron, 2000). At the same time, it is crucial for developing countries to achieve national competitiveness in the world's mosaic of markets. However, competitiveness is not and should not be the only challenge that sets new requirements for equity and justice as well as competencies for new citizenship, dialogue and cooperation in the new global village.

Each country needs to remain competitive globally while enhancing its culture locally. This demands on-going reform, change and renewal in the education system. School systems everywhere are thought to be in crisis. Improvement and change are high on the agenda of politicians, academics and education bureaucrats (see Diphofa, et al. in Taylor & Vinjevold, 1999). Education systems are expected not only to act as vehicles for redress and transformation but also to produce the kind of citizens that will enable their communities to become globally viable. Thus in Malawi, as elsewhere in the developing world, there is immense pressure currently to redefine not only the manner in which education is carried out but also what education is actually for. Such a quest does not remain outside the school but rapidly enters classroom life. It alters the definition of what counts as good teaching and learning, and what counts as appropriate education and training for educators.

The traditional case for education is that it makes a fundamental contribution to personal development and probably to the health of societies more generally. In fact, education in any century could be viewed as the maximum realisation of an individual's potential in his/her encounter with the world. It is about the extent to which a person is integrated into a full life of the day and the extent to which such an integration enables a person to contribute meaningfully as well as to exercise leadership in the life and success of the community. No person can be considered educated who remains a stranger to the century in which they are born. Our ancestors may have remained strangers to this century, not only in being unable to read and write but also because they were unable to make a meaningful contribution to the national economic and political agenda. In this sense education can indeed be regarded as the most important predictors of many forms of political and social engagement - from voting, to chairing a local committee, to hosting a dinner party, to trusting others.

Temple (OECD, 2001) asserts that education may have significant welfare benefits that are not usually captured in the economic mode of thinking as 'it is quite possible that one could probably construct a viable case for much educational expenditure entirely based on its implications for personal development independent of any productivity effects' (p.89). In this connection, the empirical work of John Helliwell and Robert Putnam (1999) provides a good basis for exploring the influence of education on social capital.

These authors present a range of data designed to show the effects of education on trust and social engagement (participation), two key variables often used as measures of social capital. In such circumstances, average education levels may help to create a climate of trust that is self-renewing. For instance, once individuals know that higher education levels make others more likely to be trusting (and perhaps also more trustworthy), then they are in turn more likely to trust others. As the returns to trusting behaviour are increased where there are increases in average levels of education, it should be expected that people of any level of education are in fact more trusting of others in an environment marked by higher average education levels.

The question is how to ensure such higher average education levels in socio-economically deprived societies like Malawi where the masses are illiterate. Although the emphasis in this discussion is on formulating strategies for providing primary education through formal schooling as a way of ensuring future wealth of social capital, mention must be made here of the importance of *lifelong learning*. Lifelong learning should be regarded as an important challenge to be tackled by the Malawi government. It should be viewed as both a determining factor as well as a result of the quality and quantity of networks, partnerships and community engagement. Given the present day reality of inequitable access to basic primary education, lifelong learning in adulthood for most Malawians would not necessarily be simply updating initial education. For most adults it would be either a first time experience of formal education or simply life experience itself. Under such circumstances 'education' is a compulsory prerequisite for enabling individuals to become lifelong learners in the context of today's information age.

Education needs should not be isolated from the broader vision of a knowledgeable and skilled citizenry. The main issue about lifelong learning with regard to the process of building social capital is that lifelong learning is seen as a connecting rather than an individualistic activity; it is about democratic citizenship rather than simply vocational skills. As Yule (2001, in Preece 2005) concludes, this stance provides a much more holistic and all-embracing perspective for

understanding the value of learning by people whose levels of education are widely disparate, and for whom lifelong learning is often obtained through community gatherings and traditional forms of education. According to Walters and Watters (2000), it is this social capital element of lifelong learning that values human life over profit, and challenges us to see a relationship between lifelong learning and social justice issues.

Helliwell and Putnam support the argument advanced by Norman Nie, Jane Junn and Kenneth Stehlik-Barry (NJS-B, 1996) about the cumulative or super-additive effects of education on tolerance to support the findings of additive or cumulative effects of education on various types of social interaction, including political and community engagement. They use the analogy of someone who wants to participate in clubs or community life: such a person is more likely to find the activities personally and socially rewarding if there is a climate of trust and tolerance among those with whom he or she is working. Therefore, by implication, high levels of trust reduce the costs of getting things done, since in the absence of trust it is necessary to have rules and enforcement - expensive and cumbersome insurance to ensure that the agreed purposes of the organisation are respected and carried out.

Many studies in education reveal the large and pervasive positive effects of general education in increased levels of trust and participation. There is evidence that education increases, not merely redistributes, social capital (Helliwell & Putnam, 1999). It is also clear that the influence of education or learning on society is contingent upon access to other forms of capital, including cultural capital. The skills gained through learning are often transferred into the individuals' civic lives which are embedded in the social context. Education provides analogies for learners, and ways in which creative talents are utilised in the community. However, education cannot be assumed automatically to generate the collective benefits identified by social capital theorists (Schuller, 2000).

Social capital is affected by and also affects the quality of education. Acknowledging that the literature on social capital is still at an early stage of development compared to the macroeconomic evidence on education, its implications for policy are less clear. Many scholars now hold that a dense network of social connections will enhance both political and economic efficiency, even though developed for non-economic purposes (Arrow 1998, in Isham, 2000). In advanced industrial societies, research on education has shown that social networks influence how much education a youth secures (Rose, http://D:\CSPP projects\htmlfiles\aberdeen-version\socialcapital\catalog20_0.html). Family relations are of major importance in motivating youths. So too are friendships with others who are motivated to study, and neighbours with positive influences, as well as other networks in which schools are embedded, including religious and ethnic ties. In terms of formal education, this means ensuring that children do not lack access to familial, peer and other social networks that reinforce aspirations to learn, and which help to overcome learning difficulties and gain qualifications, thus ensuring relevant characteristics of the social structure that affect information-sharing and the diffusion of innovations among agricultural households.

In light of the points above, any attempt to improve education is an attempt to increase social capital and vice versa. In today's world of rapid changes, information and communication technologies are being employed to ensure the improvement and effectiveness of educational systems to meet local and international demands. However, the potential for social and

economic disadvantage among those unable to make use of digital connectivity, that is to say those who are suffering from the digital divide, will not make this task easy.

The digital divide in Malawi

Digital divide refers to the potential for social and economic disadvantage among those unable to make use of digital connectivity. Reference has been made to a technological development gap of perhaps fifty years between the North and South, Europe and Africa, the UK and Malawi. South African President Thabo Mbeki has often remarked at conferences espousing the wonders of information technology on the need to remember that half the grown-up world has never made a phone call (Kalungu-Banda, 2006). This is the reality, even though rapid changes are taking place in the field of telecommunications as a result of mobile technology. So is the fact that it is easy to establish access and connectivity in the economically deprived parts of the richer countries, but not in rural parts of the developing world. For this reason, many may argue that the technology is not in place to achieve the various changes that we seek for the well-being of societies in the developing world. It is an argument that says technology has a role to play in London and New York but not so much in Lilongwe or Burundi. I would counter such an argument because, as Leach and Moon (2000) point out, it conceptualises, rationalises and then determines the division instead of illuminating ways in which such division can be breached. The digital divide is far more multifaceted than conventional formulations suggest, but the concept also legitimates a variety of western assumptions and long-held prejudices about the developing world that pre-date ICT.

Different perspectives on the digital divide are presented in literature. Here we deal with only two in order to articulate the relevance of the debate on the need for reconceptualising the concept of digital divide as it stands currently. The first is the *economic and political perspective* of Kirkwood (2001). Kirkwood looks at urban elites of the developed and developing world, most of whom now have technological access while the poor remain on the margins, resigned to spending hours of each day walking to collect water or food, struggling to tune their transistor radios to poor quality transmitters in search of news. He describes the now well documented division within as well as between countries, particularly between urban and rural communities, making reference to statistics which show that in all countries of the world, urban communities are better served than rural areas, whilst in the whole of Africa there are fewer telephone lines than there are in Tokyo or New York. This has serious implications for the development of social interaction in the different contexts within each country and around the world as a whole.

The second consideration of the digital divide refers to a *technological perspective* articulated by Venezky (OECD, 2000), based on three aspects: equipment and connectivity, the languages of software, and the technological alienation felt predominantly, it is argued, by women and girls. Leach and Moon (2000) note that too much focus on equipment and connectivity provides many policy-makers with a rationale for suggesting that information and communication technologies are inappropriate in many parts of the world such as Malawi. Leach and Moon for their part propose a view that takes account of global equity rather than technology. One is inclined to go along with this sentiment because, even in the poorest context, if people – teachers, learners and even parents in this case - *had access* to computers and digital information, and maintained and used that access, this would definitely enhance their teaching

and learning. They would certainly feel able to contribute to building and shaping the information for their own purposes and futures, and they would feel that technology had some real value for their own and other learners. Without doubt, teachers and their learners would be able to make informed choices about ways of using technology. This is the topic to which we now turn in looking at technological choices for Malawian primary schools.

Radio as a tool for education in Malawi

The socio-economic and educational context of Malawi as described above shows the difficulties faced by the government in providing educational development of substance on its own. Since the new government came into power in the year 2004, much effort has been put into, among other things, reversing the degradation of education in the country. It is recognised that achieving the millennium goals will be a far-fetched ideal, if efforts to fulfil such immediate goals as ensuring high quality universal primary education are not realised.

Lack of access to technological resources means that access to new kinds of knowledge and ways of teaching and learning is hugely limited in Malawi. This limits the availability of support for teachers and opportunities for discourse. It makes sense therefore for the Malawi government to seize upon new insights into the strengths of radio technology to resolve the chronic problems of equity, access, internal efficiency and cost effectiveness which beset the country's primary education system. Radio may not be a replacement for advanced media such as computers, but for much of the world, especially sub-Saharan Africa, computers are not going to become available in schools any time soon (Potashnik and Anzalone 1999).

Compared with other modes of teacher support and development, *interactive radio instruction* (IRI) is seen as an affordable but also a cost-effective way of providing primary and teacher education of a high standard. Quite apart from the challenge of training enough new teachers, the existing teaching force in the Malawian primary education system is as we have seen under-qualified or unqualified in academic and professional terms. There is a major challenge for the government in training enough teachers and delivering their academic knowledge and professional skills to the level that is required to ensure effective primary education. Due to financial constraints, primary school teacher education receives much lower priority than many other elements of the education system. At the same time the country still depends on full-time conventional residential training colleges that are often isolated from the rest of the education system (Kunje & Chimombo, 1999). If pre-service teacher education and training is a neglected area, in-service education and training is even less developed. Although there is wide recognition of the need to maintain a pre-service–in-service continuum in ways that operationalise lifelong learning for teachers, the resources allocated for such purposes are usually inadequate and opportunities are few.

For the Malawi government to run a programme of such magnitude as the current IRI it would rely heavily on aid from donor agencies. With IRI, external assistance will be required only during the first three years of starting the programme. Thereafter, it is possible for the country to stand on its own feet, using local resources to sustain the programme and avoiding over-dependence on donors. The economic dependence of poor countries on donor agencies and rich countries is well-known. Quite often it means that no matter how highly these countries

regard education in their socio-economic development, they have to accept certain conditionalities imposed by rich countries. As Brock-Utne (1994) has observed, some of these conditionalities have little to do with genuine development. For example, although it is recognised that the main drawback for the poor standards of education in Malawi and the success of any educational programme depends upon the capacity of the individual teachers to deliver, little enthusiasm is shown, by donor agencies and therefore by the Malawian government, for focusing on issues of teacher development.

This lack of enthusiasm by most aid and donor agencies to pull their weight on real and critical issues such as teacher development in developing countries can partly be attributed to a point made by Curle (1970), and reiterated many times in subsequent decades: the lending policies of the World Bank and the functioning of various agencies in the education sector in Africa reveal that the main aim does not seem to be to help indigenous people to attain educational and technical expertise of the highest standards; it is abundantly clear that what most rich countries want is stability with profits. Although things are changing as African countries raise their voices more, rich countries still do not give altruistic aid to enable poor countries to attain expertise and possess the kind of human and social capital that would assure their socio-economic independence. Curle (1970 p.ix) asserts that so far as foreign assistance is concerned, it has been calculated that for every unit of aid into poor countries by the rich, the latter withdraw one and half units in profits pillaged from the poor. This kind of motive for aid assistance is not likely to help improve things in poor nations of the world.

Not all rich nations, organisations, structures and people are implacably selfish. However, those who would support genuine progress in poor nations lack the power and resources to implement their purposes. What Malawi and other poor nations on the African continent need is an education that not only purveys universal knowledge but also helps people to live creatively within their own culture - education that promotes the growth of knowledge and skills and helps individuals to become productive members of the social networks within their communities. This will require of Malawians themselves and of their compatriots in the wider region hard work, but also a change of heart from the nations and organisations which have it in their power to make a difference.

Making right choices about the utilisation of whatever little technological resources are available in poor communities is vital. A closer look at the rhetoric which surrounds the potential of technologies in stimulating social interaction and development shows that promoters of technology uptake usually disregard the social context within which the technologies would be embedded. Modern information and communication technology is not cheap; much financial capital is required for the overhaul of a country's system. There is need in adopting such sophisticated advanced technology to check colourful stories about technology which persuade many developing countries uncritically to adopt particular technologies. Malawi seems to be one country that has learnt a lesson from past mistakes of failing to identify, choose and use technologies in the national interest of the masses. In most cases, the challenge seems to lie in choosing those options which are aligned to the country's own development strategies, that is, options that recognise and appreciate the country's social context.

It is evident in Malawi that within the country's institutions of higher education and in various professions the buzzwords have already become 'computers', 'soft-ware', 'hard disks' ,

‘websites’, and the like. The question is, what about the countryside where three-quarters of the population lives? As stressed in the foregoing sections, advanced technologies do have a role to play in various communities in Malawi. However, such communities constitute less than 0.5% of the total population. Can we really say that highly advanced modern technologies are a proper present option for Malawian development?

Unlike in the developed world, mass illiteracy in Malawi and other developing nations of Africa means that a heavy dose of literacy is a prerequisite to debate and then the actual use of modern technology for active partnerships and community engagement. The current tendency to leapfrog in the rush to bridge the gap, develop and be part of the modern world cannot be the way to go about it. Development, whether through the creation of social or other forms of capital, is a phase-by-phase evolutionary process. In the human development cycle we must learn how to stand before we learn how to walk. This is where the issue of literacy, not just in the sense of functional skills, becomes essential

Our local languages are used on radio but not on computers. Although with many limitations, the prevalence of radio makes it a viable medium of communication technology. Therefore a way has to be found to harness this technology as a tool for both human and social capital through the promotion of educational programmes, especially literacy programmes. Radio is the cheapest and most widespread form of technology available in Malawi. Even rural, remote communities and schools that do not have electricity and other basic infrastructure possess a radio set. In this sense, radio is not only affordable but also stands out as a dependable tool for facilitating lifelong education and lifelong learning for rural Malawi, where the masses live.

It is breaking the vicious cycle of deprivation and stagnation in teaching and learning standards at the primary education level that will really lead to building social and other forms of capital in Malawi. Creative and innovative approaches to school improvement, especially teacher development, must be explored. Recent case studies provide numerous indicators that radio in interactive radio instruction offers significant professional development possibilities for teachers (see Leigh & Cash 1999; Potashnik & Anzalone 1999; Micael 1994; Moulton 1994; Unesco 2000).

Interactive radio instruction (IRI): Current plans in Malawi

Interactive radio instruction (IRI) is a radio learning methodology which has been developed to turn a typically one-way technology into a tool for active learning inside and outside of the classroom. Its founders in the 1970s sought to combine the low cost and broad reach of the radio medium with a clear understanding of how people learn. Within the IRI structure the distant teacher carries the main weight of the teaching, and directs learning activities (such as exercises, answers to questions, songs, and practical tasks) that take place during carefully timed pauses in the audio script. The role of the classroom teacher is often to facilitate the lesson, give individual assistance to learners, and provide follow-up support after the audio component is finished. Certain programmes, especially those for language instruction, provide the classroom teacher with an expanded role that includes periods of teaching.

While it has been demonstrated that it can be used to expand access and increase equity in both formal and non-formal educational settings, the success of IRI lies in the fact that it brings

active learning to the classroom every day, and ensures that the entire syllabus is covered, not just the bits that teachers find easiest to teach. It uses a classroom methodology that embodies active learning and helps the teacher master strategies that promote it. Programme quality is maintained because the development process requires that formative evaluation is included in the design of every radio lesson. In general, IRI has been used successfully to address issues of both quality and access in many countries with challenges similar to those facing Malawi (EDC 2007; Potashnik & Anzalone, 1999; Moulton, 2003).

It is for this reason that the Malawi government has asked the American government (through USAID/Malawi) for support to start an IRI programme for all primary schools in the country. Subsequently, USAID has contracted the Education Development Centre (EDC, based in Washington, USA) to implement the programme, which will aim to accomplish two main objectives: to improve the learning outcomes in basic subjects in early primary school grades; and to support and reinforce the introduction of the new primary curriculum in the country. According to the programme overview, the IRI content will originate from studios based at the Malawi College of Distance Education (MCDE) in Blantyre, be broadcast to every primary school in the nation, and cover all basic skills in the curriculum, including literacy, numeracy, English and Life Skills. The plan is to give schools what are called next-generation wind-up radios to tune in to daily thirty-minute lessons. For a start, 150 lessons will be created for each grade level; broadcasts begin in standard (grade) 1 in January 2008, and it is hoped that by the end of the year that all the human resources and management needed will be in place to ensure continued IRI development and broadcasts for standards (grades) 1-3.

The IRI approach is expected to facilitate and reinforce the new curriculum for Malawi's primary schools, with positive effects on quality and equity of education in the following ways: a majority of learners participating in the IRI programme will exhibit significant learning gains as a result of participation; girls will perform as well as boys on post-broadcast achievement tests; and learners in rural schools will show post-broadcast results similar to those in urban schools, although probably with significant larger gains (USAID, 2007).

Need for emphasis on teacher support and development

'There can be no significant innovation in education that does not have at its centre the attitudes of teachers' (Neil Postman and Carl Weingartner 1997 in Evans 1993:19). Although IRI has already won the support of policy-makers, legislators and academic leaders in Malawi, its success is far from certain. Whether the country's classrooms will be restructured depends on whether educators will make the changes asked of them - a vast process of adaptation that must be accomplished teacher by teacher, school by school.

As far as current plans go for the IRI programme in Malawi, the focus seems to be on fulfilment of the objectives quoted in the preceding section. Teacher support and development does not explicitly feature as an area of emphasis. This is a shortfall in the plans, which needs to be considered seriously. One of the factors contributing to the success or failure of instructional reform is teachers' opportunities to learn about and practise instructional reforms. In the area of technology, teachers may have learned about how to use computers and then adapt their teaching from a variety of sources - teacher preparation programmes for prospective teachers,

professional development activities for in-service teachers, and informal learning opportunities such as assistance from classmates, colleagues or students. Professional development research suggests that teachers' opportunities to learn about educational technology during traditional professional development activities are often lacking. Often described as an important vehicle for school reform (see Stoll and Fink 1995; Evans 1993), professional development activities have been widely criticised for being relatively ineffective. They have been described as short term, devoid of continuity due to inadequate follow-up and the lack of on-going feedback from experts, isolated from participants' classroom and school context, and characterised by too few opportunities to learn by doing and reflecting with colleagues (Fullan & Stiegelbauer, 1991). While a majority of educators participate in such activities, only a small proportion report feeling very well prepared to integrate technology into instruction (see Lewin 1999).

Critics may argue that such worries about instructional reform and change in practice are not warranted with regard to interactive radio instruction, as teacher development is part-and-parcel of the IRI package. Of course IRI by its design provides many possibilities for practical ways of expanding the availability of continuing professional development of teachers. While listening to a radio instructional programme each day with their learners, teachers can be offered many effective instructional activities. The beauty of IRI lies in its potential to improve the knowledge and skills of teachers in a most non-threatening, cost-effective and practical way. According to Leigh and Cash (1999), teachers are likely to demonstrate a substantially broadened and updated repertoire of skills, and start seeing themselves as more inventive, capable and reflective professionals. In general, it is very difficult to find strategies to provide effective in-service training to teachers, especially to remote, rural teachers. Without extrinsic motivators, such as course accreditation leading to salary increase, virtually the only time that one can be certain of engaging teachers is while they are at work.

Within the traditional IRI structure, the classroom teacher who may be untrained, under- or unqualified, is not actively involved in analysing and reflecting on his practice. For the classroom teacher it is like going through a phase, following the instructions from the radio teacher; whatever learning is gained is by osmosis. This kind of implicit learning by the teacher cannot be sufficient firm to ground teachers' beliefs or philosophies about good practice. Evidence from cognitive theories of learning suggests that implicit learning or learning by osmosis as discussed above cannot be sustained over a long period (see for example Jerome Bruner, 1976; Lev Vygotsky 1978, Barbara Jawarski, 1993; Shunk, 2000). A solid grounding in teachers' own philosophies about good practice necessitates active participation in *learning about learning* and *learning about teaching* by teachers so that they can consciously take a critical look at the teaching and learning experiences within their classroom, and critically reflect on the necessity for change in their practice as classroom practitioners. Alongside the core functions of the current IRI programme, a possibility exists for initiating a process of action inquiry by which teachers can reflect on and transform practice. One could think of activities that would lead to operationalising school-based/wide staff development processes in which teachers collaborate and offer one another support focussed on improving teaching and learning.

With the passage of time, most Malawian teachers may seem to embrace the new agenda as sketched in the introductory paragraphs of this section, but many more will not. In schools that are supposedly restructuring, it is easy to find faculty who have made only minor changes, or

none at all. And in schools everywhere, teachers can be found who are strongly opposed, even when innovation aims to empower them (Evans, 1993). Implementing reform in the face of such resistance is an enormous challenge for grass-root leaders, and one that they must undertake with little help from advocates of change or restructuring. Usually these realities of implementation are neglected, and the Washington-based EDC as implementers of the USAID-funded IRI programme in Malawi need to be wary of this fact. Apart from doing a diagnosis of the status of Malawi primary education, great consideration should be given to how educators, teachers and institutions change. In most cases, it is simply expected that teachers will carry out proposals that are made. Quite often attempts are made to compel change by regulatory mandates or market forces. Innovation is seen as a rational redesign of the school's 'goals, official roles, commands and rules' (Deal, 1990). In this sense, reform is treated as a product; by focusing on its structural frame its human face is overlooked. Yet change must be accomplished by people, which necessitates a focus on the human face, seeing innovation as a generative process (Shahan, 1976) and understanding its personal and organisational dynamics.

Resistance to change is important when embarking on new initiatives like the one in Malawi. Students of organisational behaviour recognise that resistance to innovation is deeply rooted in individual psychology and group culture (Schein, 1985 in Evans, 1993). Usually what happens is that people exalt innovation in principle but oppose it in practice, disliking alterations in even the smallest daily routines. For under-qualified and unqualified teachers, the majority in rural schools of Malawi, this is likely to manifest itself in their practice. The introduction of IRI will, of course, raise hope because it offers growth; but it will also stir fear because it will challenge teachers' already waning competences and the little power that they have as classroom practitioners. Restructuring of the classroom or schools, as will be demanded by IRI, will bring with it some discomfort among teachers and other educators involved because, for a start, they will worry about adjusting, about losing status and influence. Usually, when radical change reshapes roles and disrupts the stability of a workplace, as will be the case with Malawian primary school teachers when IRI is introduced, people's very sense of existence is threatened (Evans, 1993). Marris (1986) aptly sums it up by saying that *we suffer bereavement not just from death of loved ones, but from the discrediting of the assumptions by which we live and make sense of our world and our work* (Evans, 1993:20).

Conclusion

The thesis of the theory of social capital can be summed up in two words: *relationships matter*. Education influences networks through which people connect. Over time these start sharing common values to the extent that they constitute a resource, a form of capital which we now know as social capital. My review of the literature has shown large and pervasive effects of general educational increases on levels of trust and participation, two key aspects of social capital. Conversely, there is a close relationship between people's social networks and their educational performance.

Social capital is conceived as a property of individuals and families in networks that they use to promote learning, and as a property of the schools themselves. The advantages which social capital confers on middle and upper class children should also lead to the development of support mechanisms by schools, to help poor children achieve. Improvement in education is

therefore primarily improvement in social capital, which has a direct or indirect impact on other forms of capital, for example human and cultural capital. Given the differing educational contexts, the cultural and economic context in which social capital will grow and exist will always be very diverse.

New information and communication technologies have created enormous opportunities for access to knowledge, and for new ways of working and learning, but there is always a threat, depending on what knowledge is accumulated and shared. Some groups are at risk of social exclusion. This is explained through the digital divide between the south and the north as well as the divide within each country. The lack of access to sophisticated modern technologies which is known to influence educational growth has compelled countries like Malawi to rethink the usefulness of the old model of instruction by radio. Perhaps discounted as outdated in the developed world, radio learning through the IRI methodology still has a lot to offer in improving universal primary education in poor countries.

Scholars of interactive radio instruction (see Potashnik and Anzalone, 1999) contend that radio instruction, IRI in particular, has not received the attention it deserves despite its successes. They attribute this mainly to the inability of its proponents to develop or sustain a sufficiently broad base of support among developing countries and aid donors. They also deplore the lack of initiative for locals to take ownership in designing such programmes specifically to capture the interest of the teachers and learners and to meet the learning objectives in a particular region or country. This should act as food for thought for local Malawians in terms of their input on the USAID-funded IRI initiative, especially as plans and implementation strategies are being drawn up.

Serious consideration is needed of the human face of this instructional reform. The success of any educational programme depends to a great extent upon the capacity of the individual teacher to deliver. In order to ensure social capital for the future, we need to educate all our children. To do so we need to educate all our teachers. It is necessary to formulate models of practices that are conceptually strong, confident and, while sensitive to local circumstances, capable of establishing discourse across and between communities. Thus the search for a teaching force fit for the 21st century will have begun in earnest.

Bibliography

- Barr, A. 2000. *Social capital and technical information flows in the Ghanaian manufacturing sector*. Oxford Economic Papers no. 52
- Brock-Utne, B.1994. Will cultural conditionality in the lending for education become more explicit in the new decade? in Brock-Utne (ed) 1994. *States or Markets? Neo-Liberalism in the Educational Policies of Sub-Saharan Africa*. Education in Africa 3 (1)
- Bruner, J.1996. *The Culture of Education*. Cambridge, Ma, Harvard University Press
- Coleman, J. 1988. Social capital in the creation of human capital. *American Journal of Sociology*, vol.94 Supplement 94, pp. S95-S120

- Curle, A. 1970. *Educational Strategy for Developing Societies: A study of Educational and Social Factors in Relation to Economic Growth*. London: Tavistock Publications
- Deal, T.E. 1990. Reframing reform. *Educational leadership* 47, 8:6-12
- DFID 2003. *Malawi: Country assistance plan 2003/04- 2005/06*. Malawi: DFID
- Diphofa, P. 1999. Teaching and learning in South African Schools. In Taylor, N., and Vinewood, P. (eds) 1999. *Getting Learning Right*. Johannesburg: The Joint Education Trust
- Field, J. 2003. *Social Capital*. London: Routledge
- Gittel, R., and Vidal, A. 2005. Community organizing: Building social capital as a development strategy, *Journal of Economic Inequality*, vol.3, issue 3, 193-219
- Harriss, J. (2001) *Depoliticizing development: The World Bank and social capital*. Leftword/Anthem/Stylus
- Isham, J. 1998. *The effects of social capital on technology adoption: Evidence from rural Tanzania*. Mimeo. Department of Economics, University of Maryland, College Park
- Katungi, E. 2006. Social capital and technology adoption: The case of banana technology production in Uganda. PhD Thesis, Department of Agricultural Economics, extension and Rural Development, University of Pretoria
- Kirkwood, A. 2001. Shanty towns around the global village? Reducing distance, but widening gaps with ICT. *Education communication and information*, volume 1 Issue 2, 213-228
- Kunje, D., and Chimombo, J. 1999. *Malawi: A baseline study of the teacher education system*. London: CIE, University of Sussex Institute of Education
- Leach, J., and Moon, B. 2002. *Globilisation, digital societies and school reform: Realising the potential on new technologies to enhance the knowledge, understanding and dignity of teachers*. Milton Keynes: The Open University Press
- Leigh, S., and Cash, F.P. 1999. Effectiveness and methodology of IRI, in Dock, A & Helwig, J. (eds) 1999. *Interactive radio instruction: Impact, sustainability, and future directions* 4 (1) 27-35
- Lewin, K. 1999. *Counting the cost of teacher education: cost and quality issues*, Discussion Paper 1, MUSTER Project, Centre for International Education, University of Sussex Institute of Education
- Marris, P. 1986. *Loss and Change*. London: Routledge & Kegan Paul
- Moulton, J. 1994. *Interactive radio instruction: Broadening the definition*. Johannesburg: LearnTech
-

- Munn, P. 2000. Social capital, schools and exclusions, in Baron, S, Field, J, Schuller, T, 2000. *Social Capital: Critical Perspectives*. New York: Oxford University Press
- Ministry of Education, Science and Technology, 2007. NESP. Lilongwe
- Potashnik, M., and Anzalone, S. 1999. Foreword, in Dock, A & Helwig, J.(eds) 1999. *Interactive radio instruction: Impact, sustainability, and future directions* 4 (1) Vii-Viii
- Preece, J. 2005. *Working Paper 2: Conceptualising lifelong learning: north-south divide*. University of Glasgow: CRADALL
- Routledge, B.R., and Von amsberg, J. 2002. Social capital and growth, *Journal of Monetary Economics*, vol.50, Issue 1, 167-193
- Sankey,K. and Osborne,M. 2006. 'Lifelong learning reaching regions where other learning doesn't reach'. In Edwards et al *Researching learning outside the academy*. London: Routledge
- Schuller,T. 2000. *Social and human capital; the search for appropriate technomethodology*. Policy studies 21(1)
- Scotland and Malawi 2007, *In the footsteps of David Livingstone*. Edinburgh: Scotland-Malawi Partnership(Issue 1)
- Shahan, K.E. 1976. The administrator's role in developing innovations. Unpublished manuscript. Harvard Graduate School of Education
- Socket, H.T. 1996. *Teachers for the 21st century: Redefining professionalism*. NASSP 80 (580) 22-29
- Stoll, L. & Fink, D. 1996. *Changing our schools*. Buckingham: Open University Press
- Temple, J. 2001. *Growth effects of education and capital in the OECD countries*. OECD studies No 33 2001/11
- UNESCO, 2000. *World education forum: Applying new technologies and cost-effective delivery systems in basic education*. Paris: UNESCO
- Venezky, R.L. 2000. The digital divide within formal school education: Causes and consequences. In OECD (2000) *Schooling for tomorrow: learning to bridge the digital divide*, OECD, Paris
- Vergas-Baron, E. 2000. *Paper prepared for the International Working Group on Education, International Institute for Education Planning, Florence, 14-16 June 2000*
- Vygotsky, L.S. 1978. *Minds in Society. The development of Higher Psychological Processes*. Cambridge, Ma: Harvard University Press
-

Walters, S. and Watters, K. 2000. From adult education to lifelong learning in Southern Africa, in S A Indabawa et al (eds). *The state of adult and continuing education in Africa*, Windhoek: University of Namibia in association with IIZ-DVV

Zuwarimwe, J. and Kirsten JF, 2007. *Social networks and social learning among small-scale rural non-farm enterprises: A case study in Chimanimani in Zimbabwe*. Pretoria. University of Pretoria

Electronic Sources

- Discussion paper, 2002 (<http://www.ksg.harvard.edu/saguaro/primer.htm>)
- Helliwell, J. F. and Putnam, R.D. 1999. Education and Social Capital (<http://www.aber.org/papers/w7121>)
- Hobbs, G, 2002 (<http://www.caledonia.org.uk/papers/hobbs.pdf>)
- Mkwambisi, D. 2007. (<http://www.nyasanet.org>)
- *An overview of distance education initiatives and the use of technology in Malawi:*
- SAIDE. www.saide.org.za/worldbank/countries/malawi/maloverview.htm
- http://en.wikipedia.org/wiki/Social_capital
- <http://www1.worldbank.org/pret/poverty/scapital/home.htm>

Unpublished sources

- Evans, R, 1993. *The human face of reform*, Chapel Place, Wellesley, MA 02181
- USAID/EDC, 2007. *IRI in Malawi*, Lilongwe
- Flemings, J. 2007. Discussions at St Columba's Church of Scotland, Stirling
- Kalunga-Banda, J. 2006. *Leading like Mandela*, Johannesburg, South Africa

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