

CHAPTER SIX

Options for a Dedicated Educational Broadcasting Service

INTRODUCTION

In chapters four and five, we have established a detailed in-principle framework for establishing appropriate technology models to support South African education and training, as well as articulating broad, complementary approaches to making effective educational technology decisions. Based on this, it is now possible to explore appropriate technological models. Given that this report has, as its source, a request to explore the feasibility of establishing a dedicated educational broadcasting service, we will begin by exploring models of establishing dedicated broadcasting services.

EDUCATIONAL BROADCASTING OPTIONS

Notwithstanding clear trends of convergence in functionality of information, telecommunications, and broadcasting technologies, there will remain a vibrant and distinct broadcasting sector in South African communications for the foreseeable future. Consequently, it is necessary to explore different options for harnessing this broadcasting capability to support education and training. This will then be complemented by development of an understanding of how best to harness the potential provided by technological convergence.

As we have indicated in chapter five, exploration of the role of broadcasting in support of education and training involves a process of considering the following basic questions:

1. What total percentage of expenditure on public broadcasting and overall airtime should be allocated to educational broadcasting to enable the public broadcaster to fulfil its mandate effectively?
2. In which areas of education can broadcasting play the most constructive, supportive roles? Which of these areas are of the highest priority?
3. Within each of the areas identified, what specific focuses are most appropriate?
4. What broadcasting strategies, which will draw on the educational strengths of the respective technologies, should be employed to enable radio and television to play an effective role in support of these focus areas?
5. What partnerships should be established to maximize and expand the impact and usefulness of these educational broadcasting strategies?
6. Does the percentage of expenditure allocated to educational broadcasting allow for effective implementation of the roles identified in questions two to five? If not, does the allocation need to be reviewed or do the roles need to be altered to match the budget?

In addition to this, given the nature of this study, it is also necessary to make decisions on the underlying technological infrastructure that will be used to support an educational

broadcasting intervention, as this will potentially influence the answers to each of the above questions. Consequently, this forms the basis of the options presented below.

A NOTE ON TERMINOLOGY

The Educational Broadcasting Plan released in early 1996 makes a distinction between educative and educational broadcasting as follows:

Educative broadcasting comprises programming which is of general interest to the public and which is produced and flighted in almost all sections of a public broadcaster. It includes informative programming and generally relates to programmes, which increase the public's knowledge and understanding of their context and the world. While educative programming plays an important role in all spheres of public interest, including education, it usually stands alone and does not depend on a close relationship with the processes of educational provision. Sometimes educative programming is referred to as *informal* educative programming.

Educational broadcasting, on the other hand, needs to follow a holistic approach, supporting integrated approaches to education and training, and life-long learning. It can be defined to include programmes, activities and events which support structured educational processes, whether they be of a *formal* or *non-formal* kind. Two characteristics distinguish educational broadcasting from educative broadcasting:

- First, educational broadcasting is closely related to the task of educational provision. The educational task needs to be established by the relevant education provider. Then decisions need to be made as to how the curriculum or the course will be designed and delivered, and what role educational broadcasting will play in the delivery. As a result, the strategies for the design, delivery and usage of these programmes are quite different from that of educative broadcasting.
- Second, while the public broadcasting system must treat South Africans' needs for education, information and entertainment in a holistic way, educational broadcasting must function at different levels and, where necessary, meet the special educational needs of audiences (e.g. for classroom support, adult basic education and training, teacher development, professional skills development, etc.)¹

These terms are used in this way throughout the descriptions provided below.

OVERVIEW OF THE BASIC OPTIONS

Below we sketch three basic options with regard to educational broadcasting. The first entails establishment of a dedicated educational broadcasting channel. While we explore a range of possibilities in this regard, we narrow our discussion progressively by coming to focus on the feasibility of establishing a dedicated terrestrial television channel. The second option

¹ Department of Education. (1996). *Educational Broadcasting Plan: July 1996 to December 1997, Proposal for a partnership between the Department of Education and the South African Broadcasting Corporation*. Pretoria: Department of Education. p. 12.

sketches out a ‘nested’ educational broadcasting service, not dissimilar from the range of educational services currently provided on various SABC television channels and radio stations. Although this option is theoretically not mutually exclusive to option one, we argue that the costs of option one will make it impossible to run both a dedicated channel and a ‘nested’ service using government funding. Our third option focuses on the broader responsibilities of the private broadcasting sector with regard to educational broadcasting. Here, we argue that the simpler the requirements of the private sector in terms of educational broadcasting the more likely it is that these requirements can be implemented. Hence, we suggest that private broadcasters be required to contribute to educational broadcasting only in terms of financial allocations drawn from their broadcasting licence fees. Further, though, we argue that a coordinating entity (described in detail in chapter nine) be established to enable better coordination between private sector and public sector initiatives wherever such coordination makes sense. In this way, we aim not to discourage the private sector from making its own contributions to educational broadcasting.

OPTION ONE: A DEDICATED BROADCASTING CHANNEL

DESCRIPTION

In this option, a dedicated television or radio channel is established to broadcast educational material to different sectors within the education and training system. The following elements of this option are worth noting:

Educational Applications

This use of this channel could cover the full range of ‘educational’ and ‘educative’ functions of broadcasting. Given its nature as a dedicated channel, however, it is more likely to be used in structured educational ways, as experience both in South Africa and internationally suggests that educative broadcasting works most effectively as part of a broader schedule of programming. The channel would not be limited to any particular sector (for example, the schooling or ABET sector), but could – subject to budgetary constraints – provide broadcasting support to a wide range of educational sectors.

In addition to supporting structured education at all levels, however, this channel would continue to flight educative broadcasting, building on the success of interventions such as Soul City (which provides health education through a drama series, radio broadcasts, and support printed materials). In this regard, it is critical to note that, particularly during prime time viewing or listening, the channel would have to compete directly with other public channels and commercial channels for advertising revenue, without which financial sustainability could not be achieved. Consequently, during these times particularly the channel would have to shift its focus to programming formats that integrate entertainment and education.

Ownership Model

The channel would most likely be established as an independent parastatal agency, with line reporting directly to the Minister of Education. It would be overseen by an advisory board, comprising representative of the Departments of Education and Communication, as well as representatives of educators and educational providers together with experts in the field of educational broadcasting. The channel may or may not comprise a consolidation of

educational broadcasting expertise within the SABC, depending on assessment of the expertise within SABC and the importance of continuing to provide educational broadcasting 'nested' within the public broadcaster's existing channels.

Partnerships

In addition to the above relationships, the channel would rely heavily on establishing effective partnerships with television or radio producers for its content. It would also have to build effective relationships with the international broadcasting community (as SABC Television Education has successfully done over the past few years) to secure preferential rates for purchase of international broadcasting material. The channel would also be a conduit for negotiations with educational providers wanting to use the airtime available.

Key Expenses

The key expenses associated with this option would be:

- Monthly fees for a terrestrial broadcasting signal distribution network (into which the capital costs of setting up this network would be factored);
- Setting up and staffing a new dedicated channel;
- Acquiring relevant and high quality content for transmission on a dedicated educational television channel (where acquisition strategies might include purchase of material, re-versioning and adaptation of existing material, or production of new material);
- Rolling out reception equipment and associated infrastructure (for example, electricity) in different teaching and learning sites;
- Training people in use of materials;
- Producing and disseminating print or web-based support materials;
- Establishing production and distribution mechanisms for audio- and/or video-cassettes;
- Audience and other types of research, strategic and implementation planning, and consultation;
- Marketing (branding and publicity - launch and ongoing);
- Securing advertising revenue;
- Legislative processes of securing IBA license and ongoing payment of IBA licence fee;
- General organizational overheads for a dedicated channel, including – potentially - costs of setting up and maintaining new physical premises, human resource functions, new financial and administrative support departments, establishment of local and international networks, public relations and media liaison functions, and capital equipment required for a dedicated channel.

Detailed expenditure analysis of this option is contained in appendix seventeen.

Income

The channel would rely primarily for income on government grants, sponsorship, advertising revenue, and partnerships with educational providers. This may also be supplemented by funding from donor agencies. Income projections for this option are contained in appendix seventeen.

QUESTIONS FOR CONSIDERATION

This option raises several key questions, which would need to be answered during implementation (we have provided tentative answers to each question below):

Radio or Television?

The first question requiring an answer is whether the dedicated channel should be radio or television. The primary comparative benefits of radio are its much wider reach (because of more widespread reception equipment), as well as much lower costs of transmission and production of materials. Problems with radio revolve primarily around the nature of audio media. Experience in South Africa (see appendix ten) suggests clearly that radio works most successfully as a local or regional medium, because this allows for use of local languages and production of content specific to a reasonably localized geographical location. There have been notable exceptions to this, most of which have focused on building Interactive Radio Instruction, but, as international experience indicates (see appendix nine), the educational impact of these interventions is a matter of significant debate.

The experiences of SABC Radio Education have demonstrated – unequivocally, in our opinion – that educational radio is going to work most successfully in South Africa via integration into the overall services of the regional radio stations. Through the work of its central unit at the SABC, educational radio at the public broadcaster has systematically decentralized production of educational radio programmes, while ensuring that ongoing support is provided from the centre, particularly in terms of content development. This suggests that, at a national level, the most appropriate roles for a dedicated service will continue to be coordination of regional activities, negotiation with key national players, securing funding, and establishment of national strategies

Television too has a range of strengths and weaknesses from an educational perspective. Its primary weaknesses compared to radio are its greater expense, in production, transmission, and reception, as well as its generally more limited reach. Its strengths are that it is a more ubiquitous and pervasive media form, thus lending itself more readily to a national intervention, and that the combination of audio and video media opens a range of educational possibilities not open to radio. Also, given the relative status of television and radio, it is generally easier to secure advertising, sponsorships, and government funding for television.

We do not believe the answer to this first question is easily made, given the above points (which are simply a crude summary of much more detailed debates). Nevertheless, we believe the strengths of radio as a localized intervention particularly do suggest that a dedicated television channel is likely to be more viable, notwithstanding its greater cost. Consequently, the remaining discussion focuses on television (although most of it would also be applicable to a dedicated radio channel).

Satellite or Terrestrial Transmitters?

This is a fundamental question, the answer to which has many implications. First, if one chooses terrestrial transmission, then Sentech is a required partner, as it the sole agency responsible for terrestrial broadcasting signals in South Africa. If one chooses satellite transmission, then a range of potential partners are an option. Of course, it is possible to mix satellite and terrestrial transmission, but this currently appears to make sense only if one intends to broadcast digitally (see below).

Second, this choice influences the requirements of educators and learners quite significantly. In simple terms, the choice involves a strategic decision to shift the cost of broadcasting from distribution to reception. Within large systems, where economies of scale can reasonably easily be achieved, it becomes much cheaper to provide broadcasting signals using satellite

broadcasting, as the broadcaster does not have to pay for extensive networks of terrestrial transmitters. In addition, the reach of satellite signal covers the entire country from the moment of broadcast, whereas the cost of –potentially – reaching percentages of the population using terrestrial broadcast increases as the percentage increases. In the latter case, this cost increases at a faster rate than percentage increases, as the table below demonstrates. This table, adapted from a table provided by Sentech, also stops at 82% potential population reach because the rate of increase of cost to percentage reach simply makes it unaffordable to roll out terrestrial infrastructure to the remaining 18% of the population.

<i>PART OF % COVERAGE</i>	<i>CAPITAL COST [R]</i>	<i>CUMULATIVE CAPITAL COST [R]</i>	<i>MONTHLY TARIFF [R]</i>	<i>CUMULATIVE MONTHLY TARIFF [R]</i>
50	50,250,000	50,250,000	1,049,339	1,049,339
60	13,450,000	63,700,000	238,108	1,287,447
65	9,975,000	73,675,000	170,380	1,457,827
70	19,900,000	93,575,000	341,724	1,799,551
75	25,625,000	119,200,000	558,162	2,357,713
82	41,525,000	160,725,000	1,219,026	3,576,739

On the other hand, with satellite transmission, the costs of broadcasting shift quite decisively to the reception site. Satellite signal reception requires a satellite dish and – given the digital nature of almost all satellite broadcasting in South Africa – either a digital television set or a set top box to convert the digital signal. Existing penetration of such reception equipment is negligible in the existing public education system (with some minor exceptions in the higher education system), and also not widespread within private sector education (notwithstanding the role of companies such as Global Access in using satellite technology). It is also very limited in the domestic arena, and currently mostly reliant on proprietary satellite systems. Hence, costing models that incorporate social equity goals have to incorporate the costs of satellite reception equipment, which, at least in part, offsets the relative cheapness of using satellite distribution technologies. This problem is exacerbated if one takes into account that simply equipping traditional sites of teaching and learning, such as schools, would not achieve the economies of scale necessary for traditional broadcasting. This would have to be augmented by use of broadcasting in a range of settings, including the home and the workplace.

The latter problem is, in our opinion, a decisive factor against using satellite technology for a dedicated public educational broadcasting channel. Despite the rapid growth in satellite technology, we believe that its use simply to distribute a television channel signal cannot be justified because it would be inaccessible to so many potential users. Given existing infrastructural constraints, implementation of a satellite television channel would be both very expensive and would serve, over at least the first five years of its existence, to entrench or widen existing social disparities. This should not be taken to mean that dedicated satellite television channels should not exist in South Africa, but rather that it is not an intervention that government should consider investing in currently. It also does not imply that government should be making no investments in using satellite technology (indeed, we propose some specific uses for satellite technology in chapter seven). Nevertheless, the remainder of this discussion will consider implementation of a terrestrial educational television channel.

Digital or Analogue Broadcasts?

The next consideration is whether or not to use digital broadcasts for a new terrestrial service. The primary argument against using analogue broadcasts (which currently form the basis of all free-to-air television broadcasting channels in the country) is that most developed countries already have plans to migrate to digital television broadcasts over the next five to ten years. While this is not likely to happen in the short- to medium-term in South Africa, it is a likely long-term trend even in terrestrial broadcasting. Thus, investing now in the roll-out of an extensive analogue transmission network may constitute a potentially redundant long-term investment (as Sentech discovered to its detriment when investing in analogue satellite transmission services).

As counterpoint, however, is that investments in digital terrestrial broadcasting would unquestionably be ahead of the technological status quo. The usual effect of such investments is to marginalize those who are unable to make the necessary investments to move with the technological development. This would appear to be contradictory to the spirit of an educational intervention of the type being studied in this report. As with satellite transmission, this would require extensive investment in digital reception equipment, but, because this would be likely to focus primarily on traditional sites of teaching and learning such as schools, it would militate against achieving the economies of scale necessary to sustain a dedicated educational broadcasting channel. These would only potentially emerge over five to ten years as the broadcasting system as a whole begins to migrate towards digital broadcasting services.

These problems create quite significant tensions. There is, however, a hybrid option, which would allow for some investment in digital infrastructure and then conversion to analogue signal at local transmitters for distribution in analogue form to local users. This option is being applied in many international contexts as a compromise to the above-mentioned problems. Given the circumstances, it also probably represents an acceptable compromise for a dedicated educational broadcasting channel, although it does raise certain costs of distribution in the short- to medium-term.

New or Appropriated Channel?

Assuming that this description involves establishment of a dedicated terrestrial channel, there are three basic options open. These would change if a radio channel was being considered, but the basic problems would still exist. They would obviously not apply if a satellite channel was the chosen option.

1. Build a new television channel using the Bop-TV transmitters as a platform. This option has already received some consideration in various planning processes taking place separately from this one, and various parties outside government have expressed interest in using the Bop-TV infrastructure for such purposes. As a consequence, we sought advice from Sentech on the viability of this option. The response we received was as follows:

The BOP TV network design and site locations were established within the geographical confines of the previous 'Bophuthatswana' (excluding Johannesburg and Kagiso).

In the bigger national context, the existing BOP sites were not established at optimum high sites and thus coverage from these sites cannot replicate

the coverage reach from the traditional Sentech sites in the North West province. More effective coverage is possible from the “traditional” Sentech sites. These are the sites from which, amongst others, SABC 2 is transmitted. Coverage from these ‘traditional’ sites totally overlap and extend beyond the coverage from the BOP sites. In a very limited manner, one or two BOP sites may be re-engineered and serve as a small gapfiller for the larger coverage from the ‘traditional’ sites.

People prefer uncomplicated receive systems. BOP Television is transmitted from sites differently located than those from which the PBS services are transmitted. To effectively receive from both sites requires a technically complicated and expensive receive system. People with limited means are simply not interested in such an arrangement and in practice probably receive from either the one or the other site - depending on their programme preferences and the variety of programmes available from that site.

This situation does not favour the Bop TV sites for Educational TV utilization.²

We concur with Sentech’s assessment of this option.

2. Appropriate one of the channels of the public broadcaster. This option has, as its primary benefit, that costs of establishing a dedicated educational broadcasting channel would be reduced. Obviously, though, it should be remembered that costs of capital transmission equipment, as laid out in the table provided above, are embedded in the monthly fees paid by television channels. Thus, most of these costs would have to be carried by the educational broadcaster. They would, however, remove these costs from the public broadcaster. This option has various ‘sub-options’ embedded within it. Either the dedicated educational broadcasting channel could become an independent parastatal as outlined in the ownership model at the beginning of this option. Alternatively, the channel could remain within the confines of the SABC but become dedicated to educational broadcasting and branded as such. This might take place as part of a negotiation in which one of the SABC’s channels becomes fully commercial.

This process is likely to see the commercialization of either SABC 1 or SABC 3, as these channels have developed the strongest brands. If SABC 3 is commercialized, then it would make good broadcasting sense to maintain the current brand of SABC 1 as a strong public broadcasting channel performing various public broadcasting functions. If SABC 1 is commercialized, then SABC 3 does lend itself easily to becoming a dedicated educational broadcasting channel as the reach of its transmitters is currently focused very much on urban areas, which would mean that those likely to benefit most from such a channel would not be able to access it.

Following either option, therefore, it would appear most feasible to appropriate SABC 2 for such purposes, and this channel also has the most widely accessible signal. We would also argue that it then makes most sense to keep the channel within the broader SABC, but require it to become a dedicated educational channel. One likely net effect of this,

² Taken from document prepared by Sentech for SAIDE on 23rd February, 1999.

however, would be to see a steep decline or total removal of educational programming from other SABC channels. While this need not be the case, it will become very difficult to finance both a dedicated channel and ‘nested’³ educational programming on the remaining SABC channel devoted to public broadcasting (as we discuss further below). This may have negative consequences, particularly if one considers the placement and nature of some of the SABC’s most successful educational broadcasting interventions (such as *Yizo Yizo*, *Soul City*, and *Khululeka*). This option would also require extensive negotiation and lead to structural changes that would be difficult to unwind if they were found to be inappropriate.

3. Establish a new television channel This option has various merits in terms of ease of implementation. Most obviously, it does not require any particularly difficult negotiations, unlike the previous option. There is additional frequency space for one additional television channel, and this could be used for such a channel. There are, however, two attendant problems with this option. First, it becomes significantly more expensive as it requires extensive additional investment in transmission infrastructure. Second, it removes other options concerning the use of this frequency (for example, the establishment of regional channels), and the implications of this would have to be well understood and broadly accepted. Third, this option would most likely also have the effect of diverting funding away from the SABC’s current educational broadcasting interventions. On balance, however, it would appear to be the most viable option, particularly as it would allow for some preliminary investments in digital terrestrial broadcasting as described in the hybrid digital/analogue broadcasting option above.

What Support Services Are Necessary?

The final major issue for consideration is the range of support services that would be necessary for a dedicated educational broadcasting service. All experiences of successful educational broadcasting internationally are accompanied by well developed support strategies of some form or another, as successful educational broadcasting cannot simply be delivered in a vacuum. Obviously, this would need to be flexible and would vary according to the mix of programming and variety of educational sectors targeted by the channel. Nevertheless, support services would need to include the following:

- Building access to physical infrastructure (particularly electricity and roads) and reception equipment;
- Building professional development networks, to support the educators, learners, managers, and administrators using the broadcasts;
- Undertaking ongoing consultation as necessary;
- Developing supplementary support resources, including printed materials, web sites, and video and audio cassettes;
- Organizing for the ongoing dispatch of materials, including both cassette versions of broadcasts and packages of support resources;
- Conducting ongoing research into the effectiveness of different broadcasting interventions, as well as structured planning of new interventions; and
- Promoting the dedicated channel and its various products and services.

³ In terms of this discussion, a ‘nested’ educational broadcasting channel refers a channel on which educational programmes are integrated into a programming schedule with a wider range of programming types. This ‘nested’ channel could then be integrated into a single channel or – as is currently the case on the SABC – spread across the schedules of multiple channels

STRENGTHS

There are five main benefits of establishing a dedicated educational broadcasting channel. These are:

Wide Reach

The most obvious reason for establishing a new dedicated educational broadcasting channel would be the wide reach it could potentially achieve very quickly. As the transmitter table provided above indicates, it would be theoretically possible to reach 82% of the country's population through such an intervention and roll-out of such an intervention could be accomplished reasonably quickly. Unlike educational broadcasting integrated into the schedules of existing channels, it would also be possible to ensure that educational programming can be carried all times of the day. This would extend potential reach as educational programming would not have to compete with other programming types for prime-time viewing (or listening) time. Obviously it would not completely alleviate such problems as many educational programmes would soon start to compete with each other for the most attractive viewing slots.

The potential of wide reach of course needs to be offset against the reality that many people do not currently have the reception equipment necessary to access television broadcasts even though they do fall within the reach of terrestrial transmitters. This becomes particularly problematic given the strong correlation between these groups of people and socially marginalized communities. Thus, there would a need to invest massively in expanding reception equipment capabilities to avoid the trap of the technological intervention not benefiting those who are currently most marginalized within the education system.

Secure Air Time

A key element of this option is that it secures airtime for educational broadcasting, a feature which is probably its greatest strength. This is important to educational broadcasting, which historically has had to compete directly with broadcasting that primarily entertains or informs audiences. This has meant that there have been many difficulties with securing air time for educational broadcasting, particularly during prime time when its impact might be greatest.

High Visibility

Broadcasting is a high profile social activity, and establishment of a dedicated educational channel will certainly constitute a clear signal of intent on the part of government. This can be exploited for a range of marketing purposes. In the field of education, social perception plays a critical role in maintaining a successful system, so if this marketing exercise can be well managed it can help to improve these general perceptions. This is, however, a double-edged sword, particularly as the expense of the intervention and its tendency to be misinterpreted by the most powerful organized force within education (teachers), can easily turn this benefit into an Achilles heel.

Major Educational Intervention

Another potential benefit cited for a dedicated educational broadcasting channel is the scale of the educational intervention. The channel could broadcast vast quantities of curriculum-related and other educative content each day. The potential educational value of this depends tremendously on weight attached to different pedagogical approaches. The attraction of this as an educational solution is strongest amongst those educators who still regard education as

primarily a process of information transfer, in which the main function of learners is to absorb information communicated to them by the 'best' educators. Within this model, the benefit of broadcasting is that these 'best' teachers can expand their reach massively using broadcasting. However, if one abandons this unrealistic model of how education functions, television has a very narrow range of educational functions. Thus, again the benefit of the intervention – namely its size – also constitutes a major risk taken on dubious pedagogical evidence.

Independence from the Rest of the System

One of the primary attractions of establishing a dedicated educational broadcasting channel is its perceived relative independence from other aspects of the system in terms of implementation. There are very few, if any, other elements of the education system that need to be functioning effectively in order for the channel to be established. The ease of making the intervention, therefore, is almost undoubtedly the strongest reason for the attraction of implementing such an option, and is particularly strong amongst politicians with a heavy inclination towards 'getting something done'. Unfortunately, however, this needs to be weighed up against likely educational impact, and, both internationally and in South Africa, experience clearly suggests that, while the channel might be set up and start running successfully, its educational impact is integrally dependent on other aspects of the system functioning effectively. Thus, superficial independence from the deeper structural problems dogging South Africa's education system would not alter the educational reality that any positive role for a dedicated channel cannot be separated from solutions to these underlying problems. This then raises the question of whether or not a dedicated channel would contribute to solving those underlying problems or to exacerbating them by diverting potential funding away from other solutions. The diagram provided in the previous chapter, which outlines the wide range of support services necessary for an educationally effective broadcasting initiative suggests clearly that such logic, while tempting, is likely only to lead to financial wastage and greater frustration.

WEAKNESSES

As we have outlined above, the most obvious benefits of establishing a dedicated educational channel are, in themselves, all potential weaknesses of this model. This alone suggests that this is not a viable option, notwithstanding the confident prediction of its value by PWC in the first phase of this study. In this section, we consolidate more systematically why such a model is not an appropriate investment by the South African government.

A Weak Educational Model

The most fundamental problem with establishing a dedicated educational broadcasting channel is that it is not a viable educational application for broadcasting technology. The dominant educational thinking underpinning efforts to establish a dedicated channel internationally has tended to be to use broadcasting as a strategy to perform key educational functions that are not being performed within the education and training system because of specific problems. This thinking tends to be most dominant within the schooling sector, where policy planners often see a role for broadcasting performing the teaching functions of an underqualified or underperforming teaching corps or bypassing systems where basic administrative and management processes are dysfunctional. This logic is extremely seductive in the current South African context. Unfortunately, there is no evidence to support

the use of broadcasting in this way, as it is simply not able to replace these functions effectively.

Arguments that broadcasting can ‘bring the best teachers’ to everybody, while attractive from a democratic perspective, have no educational value. Educational systems faced with such problems at a systemic level are usually financially stretched already, because such basic problems tend to lead to massive financial wastage. Dedicated educational channels established under such circumstances tend either to divert funding away from solving underlying structural problems in educational systems or to add a major new financial burden that the system simply cannot sustain. These underlying problems, such as the examples given above, are usually of such a nature that, until they are solved, no educational technology intervention is likely to be useful. They also usually have the effect of perpetuating or intensifying the discontent that such poor functioning systems tend to create amongst the bulk of their employees, in this case educators. When they are solved systemically, the need for a dedicated channel usually falls away.

We already outlined in chapter three that, while broadcasting has a key range of roles to play in supporting education, this range is very narrow and best integrated into a channel that serves a range of public functions (as the SABC television and radio channels currently do). Thus, we believe any attempt to use technologies effectively must incorporate strategies to solve the major structural problems facing the education system at all levels, as well as developing applications of those technologies that directly support teaching and learning. A dedicated channel will not achieve these goals, as the remaining weaknesses indicate clearly.

Adding to the Existing Budget

One of the most obvious problems with establishing a dedicated educational broadcasting channel is that there are no obvious business models to support it. In other words, setting up and maintaining such a channel would constitute an addition to the existing education budget of the country, which is already hopelessly overstretched. The business models presented by PWC are completely unrealistic in their expectation of advertising revenue that could be generated by such a channel (see ‘ghettoization’ of educational broadcasting below), which leaves one of two options as primary revenue source. Either the channel would have to be funded by government (even the PWC business model assumes investments of R60 million in a dedicated channel) or by the private sector or some combination of the two.

We believe that, for the reasons articulated below, government investment in a dedicated channel is not the most appropriate way to invest money in building the quality of the education system. Further, we believe that most private sector models also pose significant risks to both government and the education system more generally, which would not warrant acceptance of a ‘free gift’ of a dedicated channel.⁴ First, this model would see a scarce resource – broadcasting frequency – traded against hard-to-measure educational impact. This resource should be traded carefully, with a view to establishing viable business models that can see it generate income for government over time. Second, the extent to which private sector investment in a dedicated channel would remove cost burden from government is also highly debatable. It is highly unlikely that such investments would be accompanied by investments in the kinds of support services necessary for a successful dedicated educational

⁴ The set of problems articulated here is well illustrated in the many Interactive Radio Initiatives set up in Africa, which started on donor funding. These were simply unable to sustain themselves when donor funding dried up (see appendix ten for more information).

channel. Thus, government would be left with burdens of training teachers, circulating supplementary resources, and extending access to the service through equipping poorer schools with reception equipment, as well as a host of other hidden costs. These costs are potentially massive, and should only be accepted after careful scrutiny of the likely benefits. Again, the remaining issues suggest that such benefits simply do not exist.

For the purposes of illustration, we have prepared a full costing schedule for a dedicated educational broadcasting channel. This is provided in appendix seventeen.

Ghettoization of Educational Broadcasting

Educational broadcasting in South Africa has, by all accounts, a somewhat chequered history, particularly when the SABC was functioning as an extension of the apartheid government. Significant strides have been made within the public broadcaster, in both television and radio, to reverse certain trends, with the result that the profile and quality of educational broadcasting has been improving steadily over the past few years. This is reflected, in educational television, in, for example, the high profile of educational programmes in viewer ratings in 1999, the contribution of educational programming to television's critical role of stimulating debate within a free society, and in the rapidly improving status of SABC Educational Television in the international arena. It is also reflected in the developing understanding within SABC radio education of the importance of establishing effective working relationships with regional station managers and re-conceptualizing understanding of how radio can be used most effectively to support educational goals. In the latter respect, there has been a growing tendency to focus on a range of informal educational strategies in areas such health and civic education.

A well-noted consequence of establishing dedicated educational broadcasting channels is its tendency to 'ghettoize' educational broadcasting. By this, we mean that, when educational broadcasting is moved off the programming schedules of mainstream television channels, its relative status diminishes rapidly, while the chances of viewers coming across educational programming as part of their daily viewing habits is reduced significantly. This is not an inevitable consequence of establishing a dedicated educational broadcasting channel, but it adds substantially to the risks of establishing a dedicated channel, particularly in a country where education still has a relatively low status in many quarters. This risk is magnified if a further consequence of establishing a dedicated channel is that educational broadcasting is either removed from or substantially reduced on other public broadcasting channels, as the possibilities of inter-channel on-air promotion are significantly curtailed. In a resource-scarce environment, this would seem to be a likely consequence of establishing a dedicated educational channel, as educational broadcasting is generally not regarded by broadcasters as a sustainable activity in its own right. Thus, both creating a dedicated channel and expecting ongoing educational broadcasting on other public television channels is likely to add significant, unsustainable financial burdens to the public broadcasting system. Given this somewhat stark choice, we believe it is critical to maintain educational broadcasting services that are integrated into a more general public broadcasting service rather than separating it out from other public broadcasting services by creating a dedicated channel.

An educational channel needs to compete with other channels for its audience, and requires a strong branding and audience following to secure advertising revenue. In the same way as educational programmes compete with other broadcasting formats for airtime when they are 'nested' in other channels, educational channels must compete for audiences, and this is a very difficult competition, particularly where – as in South Africa – where the market is

relatively small. While it may seem attractive to secure airtime for educational broadcasting by establishing a dedicated channel, there are other ways of overcoming this problem using a 'nested' channel. In some countries, difficulties of securing airtime for educational programmes have been attributed to the organizational structure of the educational broadcasting unit. In Germany for example, funding for educational broadcasting is not secured, and, as a result, airtime for educational programmes is subject to the whims of the public broadcaster. As educational programmes are often regarded as attracting niche audiences, as less profitable and of lower status to other programmes, when the public broadcaster faces budget constraints, the educational programmes are the first to be cut. By comparison, Teleac-NOT, the educational broadcasting unit in the Netherlands has direct and secured funding and this and its airtime on the public channels are legislated by a media act. As such, even though it adopts a nested broadcasting approach – screening programmes on a range of channels- it does have to compete with other programmes for airtime in the same competitive way because a percentage of educational broadcasting time is secured.⁵

A final argument in this vein for a dedicated channel is that it is necessary to secure airtime for highly specialized, niche audience programming. The problem with this is that of trying to find and keep these small audiences, a problem which is severely exacerbated when educational programmes are all broadcast on a dedicated channel. This is because opportunities for using different educational programmes, spread across a range of channels, to draw in these niche audiences are severely curtailed. The success of this strategy has been seen in niche-oriented programmes such as *Educator Express*, which can benefit from, for example, marketing strategies linked to programmes such as *Yizo Yizo*, as well as from repeat broadcasts on different channels. In addition, we would argue that, where the intervention is highly specialized, it would be cheaper to rely on audio- and videocassette distribution – marketed during normal programming time, to interested audiences. Similarly, it may be possible to use late-night broadcasting and recording as an alternative dissemination strategy. None of these particularly requires a dedicated channel for success.

Avoid Key Problems in the Education System

This report is based on an incontrovertible insight that investments in any technological intervention have to be taken within a broader set of prioritization processes. As we have indicated above, a fundamental flaw in the concept of a dedicated educational broadcasting channel is that it will channel funding away from the most critical systemic problems dogging the educational system currently, namely poor administration and management at local, regional, and national levels, under-prepared and unmotivated educators, and absence of effective management information necessary to plan effectively. Unless these problems are solved in all educational sectors, strategies to deliver educational resources to educators or directly to learners will never have a large-scale educational impact (although they may be proved to be successful in micro contexts where particularly talented people are able to use them effectively in spite of the barriers set up by poorly functioning systems).

This does not mean that educational technology investments should not focus on delivery of educational resources. Rather, it suggests that such investments have to focus on solving underlying structural problems as they simultaneously prepare for large-scale delivery of

⁵ Kees Schippers (director of Teleac-NOT) pointed out that educational broadcasters complaints of limited airtime, are frequently linked to the position of the educational broadcasting unit within the public broadcaster and countries media legislation. He presented this argument using Germany and the Netherlands as opposing examples, to demonstrate that air time for educational programmes can be secured in ways other than creating a dedicated educational broadcasting channel.

educational resources. A dedicated educational broadcasting channel contains no serious strategies for solving these structural problems, which makes its goals of delivering resources highly problematic and potentially tremendously wasteful, as the education systems for which these resources are intended will be unprepared to use them effectively.

Transitory Nature of Broadcasts

As we have indicated in chapter three, a problem with educational broadcasts is that they are transitory in nature. For example, video resources distributed via terrestrial or satellite television broadcast are subject to several limitations. The most notable are:

- Students are required to gather at a certain place (where a television is) at a certain time;
- Students have no control over the pacing of the broadcast;
- Broadcasts tend to encourage passivity among students (and strategies employed to overcome this problem inevitably start generating significant additional cost, usually leading to serious financial inefficiency);
- Students are provided no opportunities to ‘individualize’ the way in which they engage with resources;
- Integrating other media with video broadcast live is very difficult to achieve, and, when applied, very often leads to inefficient use of both broadcast technology (an example of this might be leaving ‘dead’ spaces to allow students to consult a printed resource) and the medium (this type of integration most often leads to quite boring television); and
- Broadcasts tend to be organized in time packages that are much longer than the time an average student is able to concentrate fully on the television screen.

These kinds of problems do not mean that there is no role for educational broadcasting, but they do place clear limits on the effective functions that a television or radio programme can perform.⁶ They also suggest that dedicating an entire channel to performing such functions will not add sufficient value to the educational system to justify the investment. A counter argument to this is that broadcasting can be used as a cheap mechanism for distributing audio or video resources to educational providers (and the SABC already uses late night broadcasting time for this purpose). The costs of setting up a dedicated channel, however, are such that any potential economies of scale that could be achieved by using broadcasting as a distribution mechanism would be negated by capital, maintenance, and content acquisition and development expenditure. Thus, we would argue that it would be more cost effective to continue to use existing public channels to perform this function where it is required or potentially useful.

Problems of Reception

Another obvious problem with establishing a dedicated educational broadcasting channel is the problem of reception. As we have shown in previous chapters, infrastructural deficiencies in terms of electricity, reception equipment, and physical security mean that very few sites of teaching and learning would have immediate access to educational broadcasts. This leaves various options. The first would be to focus on homes as the primary viewing or listening site. An intervention as expensive as a dedicated channel, however, cannot feasibly adopt this as an educational strategy, given the serious problems currently plaguing the education and training system. Such a channel simply has to develop strategies for educators and students to

⁶ SABC Educational Television and Radio – through being forced to function in a broadcasting environment where there are, at once, several competing demands and some financial space – have already developed a sophisticated understanding of how broadcasting can best be used to support education and training. This understanding has, in our opinion, been significantly enhanced by this competitive environment

access broadcasts at a wide range of teaching and learning sites, including schools, community centres, colleges, the workplace, and universities and technikons.

This leaves the option of beginning to roll out the required infrastructure systemically. In certain respects, most notably electricity, this is already under way. Given financial constraints, however, the next phase of technological investment will require clear prioritization. Given rapidly changing technological environments, it would appear to be particularly dangerous to invest systemically only in technologies with very limited functionality, such as radios or television sets, which depend for the success on other aspects of the system working reasonably effectively. Such an option would probably force these limits, with potentially very negative consequences. It should also be remembered that filling a dedicated educational broadcasting channel with appropriate content will be a very expensive process (see below), which will have the consequence of further reducing available finances for rolling out technological infrastructure.

We believe that these problems pose a major problem to the option of a dedicated educational broadcasting channel. They force investment in a very singular technological support infrastructure, the educational impact of which is likely to be highly limited, at the expense of other possible investments. Given the absence of infrastructure for reception, it is also likely that there would be a significant delay (at least three years) before the intervention could achieve meaningful economies of scale. South Africa's education and training system simply cannot afford to carry the costs of such an investment for such a long period.

Marginalize Teachers

Another major problem, potentially most acute in the schooling sector, with a dedicated educational broadcasting channel is that, possibly more than any other technological intervention, it carries with it a very strong perception of being implemented to perform the functions of educators rather than to support their work. Unfortunately, this applies whether or not the broadcasts themselves have been designed to 'teach' students directly or to be used as a support mechanism by educators. This applies particularly in contexts where the motivation levels of educators, as a group, have already been systematically undermined by poor training, inadequate facilities, and inefficient management and administrative systems. Under such circumstances, any national expenditure that does not seek to tackle these problems directly is likely to be viewed with hostility by educators. It raises questions about how spending priorities are determined, and leads inevitably to a belief that the intention of such expenditure is to bypass the educators rather than to support them. This is a potentially very dangerous self-reinforcing cycle of de-motivation which the country can ill afford currently.

Securing Appropriate Content

As we have mentioned above, another serious problem with establishing a dedicated educational broadcasting channel is that of securing sufficient high quality content to fill an entire channel. This problem already faces broadcasting generally, which struggles across the board to find creative ways of filling airtime with high quality programming. Any solution to this problem inevitably involves investing large sums of money in generating, buying, adapting, re-versioning, and dubbing educational programming. Again, such decisions need to be placed within a broader context of financial prioritization, as large-scale investments in developing broadcasting content inevitably have to be made at the expense of other potential investments. Given the range of problems articulated above, we believe that this is not the

current educational priority for South Africa, particularly given problems of not being able to assess impact sufficiently clearly.

SUMMARY

With the exception of a few partially successful dedicated educational channels running in developed countries where budgetary constraints are substantively fewer than South Africa and well-developed education systems can afford this huge additional overhead, the experience of dedicated educational channels follows a similar pattern. A poorly functioning educational system leads educational planners to the conclusion that establishing a dedicated educational channel provides an effective alternative to fixing underlying structural problems, such as poor quality teaching or dysfunctional administration. This system then does not function effectively from an educational perspective at all, with two results. The first is that the structural problems of the educational system begin to be resolved through different parallel processes. After this – at the time when the channel could finally be used effectively to support education – a dedicated educational television channel becomes an unaffordable luxury and is gradually integrated into the functions of the public broadcaster. The second is that budget allocations that should have been channelled into solving basic structural problems are diverted into establishing the channel, while the system itself continues to operate as inefficiently as before. The long-term consequence of this is that the dedicated channel falls into disuse because of its expense, while the structural weaknesses of the education system continue unchecked. The educational consequences of this are profoundly negative.

A NOTE ON VARIANTS OF THE OPTION

This option, and the commentary on it, have been based primarily on establishing a dedicated terrestrial television or radio channel. We have argued that such an investment by national government is not justified currently. This should not, however, be taken to imply that current non-government investments in dedicated broadcasting channels offered via satellite for very specific educational applications should be discouraged or even simply not considered as part of a broader educational technology strategy. Some of these applications, such as Global Access, are located squarely within the private sector, where business models require financially sustainable technological investments. Others, such as Teletuks offered by the University of Pretoria by arrangement with Orbicom, support the educational interventions of specific institutions⁷, and again the accountability for creating financially sustainable models rests with an individual institution. Still others, such as the work of the Shoma Foundation, merge private sector interests and public interest.

The first point to make is that we see no reason, at a policy level, to discourage the work of such organizations. On the contrary, this is likely to be counterproductive, as there is tremendous potential to learn from the experiences of such interventions, as the publicly available evaluation reports of the Shoma Foundation demonstrate. There is also potential for

⁷ In addition to supporting programmes of the University of Pretoria, Teletuks broadcasts programmes and courses in collaboration with the University of the North, the University of Zululand, and the University of South Africa (UNISA). It also broadcasts POL-TV once a week for the South African Police Service, while, every Sunday, Impact Christian Media use the channel for religious programmes and, on Saturdays, Teletuks broadcasts a two-hour news programme for Deukom (a German Channel). The Teletuks channel is free to air and every DSTV viewer can access the channel on the commercial group of channels: Channel 20.

merging the interests of these projects with national interests over time, as we will demonstrate in the following chapter. Hence, the ‘straw dog’ option presented above should not be taken to imply any criticism of the establishment of dedicated educational channels such as Global Access, as it does not generate additional financial burdens for government. In cases such as the Shoma Foundation, where public expenditure comes in the form of the time of teachers who attend Shoma classes, the relative benefits of these professional development opportunities can be weighed up against these costs, as has happened in Shoma’s ongoing negotiations with provincial governments. With public institutions such as the University of Pretoria, the merit of particular investments would need to be assessed as part of overall strategies to ensure accountability of public funding, as are currently being developed by the national Department of Education and the Council for Higher Education. Such dedicated uses of educational broadcasting need, therefore, to be evaluated on a case-by-case basis.

OPTION TWO: ‘NESTING’ A DEDICATED EDUCATIONAL BROADCASTING SERVICE ON EXISTING PUBLIC BROADCASTING CHANNELS

DESCRIPTION

In this option, the strategy for establishing a dedicated educational broadcasting service focuses on consolidating the role of the public broadcaster, with a particular focus on the roles of the two central units responsible for educational radio and educational television respectively. The consolidation of these roles would entail judicious expansion of investment in the work of these units and ensuring that their role and scope is protected as the SABC operates within an increasingly competitive broadcasting environment and is forced to commercialize more elements of its services to reduce its dependence on the national fiscus.

Educational Applications

Within this option, we would envisage the SABC television and radio services continuing to provide the kinds of educational and educative programming that they currently provide, expanding and augmenting these services as money becomes available to do so. Thus, while there is a growing focus on supporting structured education, in areas such as schooling and adult education, there is also a wealth of informal educative programming on both radio and television that harnesses many of the greatest potential strengths of educational broadcasting. SABC Education already conducts extensive planning exercises to determine appropriate focuses for its new educational broadcasting interventions, and the reports of these planning processes (available from SABC Education) outline in detail specific educational applications for broadcasting within such an environment. This option envisages a continuation of these basic educational applications, with attention focusing on creating a more stable operating base for educational broadcasting within the overall public broadcasting system.

Ownership Model

In this option, ownership of the structures responsible for educational broadcasting remains within the overall ambit of the public broadcaster. As will be outlined below, however, we do recommend that the separate units of radio and television should be merged and that the current relationships between these units and the Department of Education should be strengthened.

Partnerships

In addition to the above relationships, a new SABC Education Department would rely heavily on establishing effective partnerships with television or radio producers for its content. Like a dedicated channel, it would also have to build effective relationships with the international broadcasting community (as SABC Television Education has successfully done over the past few years) to secure preferential rates for purchase of international broadcasting material.

Key Expenses

The key expenses associated with this option would be:

- Costs associated with broadcasting time on existing channels and stations (including both transmission costs and ongoing costs of securing airtime);
- Staffing an educational radio/television unit;
- Acquiring relevant and high quality content for transmission on ‘nested’ educational service (where acquisition strategies might include purchase of material, re-versioning and adaptation of existing material, or production of new material);
- Rolling out reception equipment and associated infrastructure (for example, electricity) in different teaching and learning sites;
- Training people in use of materials;
- Producing and disseminating print or web-based support materials;
- Establishing production and distribution mechanisms for audio- and/or video-cassettes;
- Audience and other types of research, strategic and implementation planning, and consultation;
- Marketing (branding and publicity - launch and ongoing);
- General organizational overheads for a unit within the SABC.

Detailed expenditure analysis of this option is contained in appendix seventeen.

Income

Under this option, we envisage income coming from two primary sources. First, the current national fiscal allocation to public broadcasting, which is due to be wound down over the next few years, would be reduced as planned but would then target educational broadcasting specifically. The net consequence of this be an overall increase in funding for educational broadcasting within the public broadcaster. Second, as part of the negotiation around commercializing one of the SABC channels, we believe that there is space to require that a portion of the overall licence fees received by the SABC from television owners be set aside to fund educational broadcasting. Finally, as we indicate in option three below, we believe that a financial allocation should be made to educational broadcasting by private broadcasters as part of fee paid for the right to broadcast on public airwaves. Income projections for this option are contained in appendix seventeen.

QUESTIONS FOR CONSIDERATION

The description of issues for option one has already raised many of the issues relevant to option two, as well as providing partial explanations for why we consider this option to be more educationally effective and financially viable than option one. Nevertheless, there are various issues requiring exploration, and these are discussed below.

Is Option Two Exclusive or Complementary to Option One?

A first issue for consideration is whether or not this option and option one are mutually exclusive. This consideration is important because we have argued that a weakness of option one would be its tendency to 'ghettoize' educational broadcasting. Such a weakness could, of course, be potentially offset by maintaining some broadcasting service on existing public broadcasting channels, thus creating opportunities to use nested educational broadcasting to attract audiences to the programmes of the dedicated channel. While this might be possible in principle, we believe that the dual costs of running a dedicated channel and maintaining educational broadcasting services on other public channels render this option impossible from a practical perspective. Thus, for the purposes of this option, we have assumed that options one and two constitute mutually exclusive choices.

Further, we regard these two options as mutually exclusive from the perspective of educational impact. We have argued that option one is structurally flawed not simply because of its expense, but also because there is considerable evidence to suggest that educational broadcasting works most effectively when it is integrated into a broader programming schedule, both in radio and television. Consequently, we believe that option two is conceptually different from option one in that it recommends the integration of educational broadcasting across a range of television channels and radio stations, which in turn perform a range of public broadcasting functions.

Should the Separate Radio and Television Units Within the SABC be Merged?

Historically, educational radio and television were coordinated by a single educational unit. For a range of valid reasons, this structural arrangement has had to change, with the result that separate educational units have been established for radio and television. We believe that an important decision to take with regard to consolidating the role of the public broadcaster entails deciding whether or not to merge these two units. There are various areas where cooperation might take place between the two units, which we believe justify such a merger. In consultation with both units, we have generated the following list of cooperation possibilities:

- Strategic planning.
- Coordination of marketing campaigns.
- Using action plans to generate complementary activities (where appropriate) in terms of:
 - Times of broadcast;
 - Themes and content of programmes and series;
 - Learning outcomes of programmes and series;
 - Target audiences;
 - Broad focus areas within blocks of airtime (strands), such as focusing on youth programming between 18:30 and 19:00;
 - Broad educational areas and sectors of intervention, such as Early Childhood Development of Human Resource Development;
 - Broad learning areas, such as science, life skills, or communication; and
 - Broadcasting campaigns.
- Cross-advertising within programmes.
- Research, including language research, generic audience research, and field research.
- Establishing common budgets.
- Fund-raising.
- Consultation processes (see below), liaison with the educational community, and development of ongoing working relationships with members of this community.

- Professional development of teachers in the use of media in the classroom.
- Interventions in the provision and maintenance of hardware at schools.
- Distribution and sale of resources (print, audio, video, and other resources).
- Participation in the development of print and other non-broadcast resources.
- Development of an educational web site and other online services.

Merging radio and television functions is, however, by no means easy nor entirely positive. Possibly the greatest potential danger is the dominance of television within such a merger, particularly if the functions of the unit are managed by a single director. A linked potential problem is that both educational radio and educational television derive benefits currently from their physical location, within the buildings of SABC radio and SABC television respectively.

Consequently, option two envisages a fairly loose merger, in terms of which the current heads of educational radio and educational television continue to manage their respective units. They would, however, be expected to generate a single budget for the new unit, in terms of which those functions mentioned above will receive joint budgetary allocations. Thus, for example, the new unit would be expected to rationalize marketing functions to ensure that there is only one marketing department for the unit as a whole. The directors of the unit will be expected to reach agreement on the physical location of these common departments, sharing the responsibilities for this between the current radio and television premises.

Such a merger has obvious financial benefits, but also, more importantly, specific educational advantages in terms of better coordination of initiatives. In addition, we believe it lays a crucial platform for the development of new coordinating functions for educational broadcasting, particularly in an environment of converging technological functionality. This is described in greater detail in the following chapter.

Which SABC Television Channel Should be Commercialized?

In option one, we began a discussion on the issue of commercialization of an SABC television channel. This process, which is currently under way, has important implications for 'nesting' a dedicated educational broadcasting service in the channels of the public broadcaster. As we indicated above, it appears that the strong branding of SABC 1 and SABC 3 make those two channels the most attractive options for commercialization. This decision has significant implications for educational broadcasting, thus warranting further discussion in terms of the relative merits of each:

- If SABC 1 is commercialized, this will mean that the channel with by far the largest black viewership will be secured for purposes of generating advertising revenue. This has some clear financial advantages, particularly because SABC 1 does not have meaningful competition in terms of its current programming mix. It has developed a range of programming that is unparalleled in terms of its appeal to the mass markets of black viewers, particularly younger viewers. Where other channels mostly divide the cake of advertising revenue attracted to middle and lower middle class, predominantly white audiences, SABC 1 has successfully built and captured a new, potentially much more lucrative viewership. From this perspective, it creates obvious commercial possibilities. Nevertheless, this audience also comprises the primary target of educational broadcasting interventions, and there is simply no other television broadcasting platform that is likely to reach such viewers in the short- to medium-term. Setting educational broadcasting interventions in direct competition with such a channel – which would be the inevitable consequence of commercializing SABC 1 – is likely to reduce the impact of educational

broadcasting significantly, as it will struggle to encourage its primary audience to move away from SABC 1.

A second consequence of commercializing SABC 1 will be that most of the problems associated with option one are likely to come into play in this option. SABC 3's transmitters cover very limited geographical areas, most of which are clustered around urban areas. In addition, its audience profile simply does not include the primary targets of most educational broadcasting interventions. Thus, while it is possible to extend the reach of the SABC 3 signal, it would still take a few years to build the kind of audience profile best suited to the kinds of educational broadcasting interventions most appropriate in South Africa. The result is that most, if not all, educational broadcasting, is likely to migrate to SABC 2, where at least the broadcasting signal covers a relatively large percentage of the country's population. The net consequence of this will be the establishment of a 'virtual' dedicated educational broadcasting channel. While SABC 1 may choose to carry some high profile educational programmes, these will be significantly reduced and under extreme pressure to perform well financially by capturing the largest possible audience. As a result, the medium- to long-term implication is the de facto creation of a dedicated educational channel, with all of the attendant problems outlined above.

- If SABC 3 is commercialized, this will avoid the various educational broadcasting problems associated with commercialization of SABC 1. Educational television programmes can be spread across SABC 1 and 2, with high profile programmes flighted on SABC 1 drawing in viewers to niche-oriented programmes such as Educator Express, School TV, and Dumani. Nevertheless, we do acknowledge the possible financial problems associated with this scenario. In particular, this move is more likely to set the new commercial channel up in more direct competition with MNet, DSTV, and E-TV. This may prolong the dependence of the public broadcaster on the national fiscus for finances, particularly as it contains no obvious strategy for exploiting new potential markets, preferring to remain instead within the domain of the tried and tested, but already over-stretched, current advertising markets. This problem could, however, be at least partially offset by encouraging further generation of advertising revenue via SABC 1, as a conscious strategy to build these new markets.

We believe, therefore, that, from an educational perspective, commercialization of SABC 3, combined with ongoing bolstering of the revenue-generating potential of SABC 1, provides the best option for a 'nested' educational broadcasting service. This would obviously then be bolstered by cross-medium advertising between radio and television, a strategy already employed that is likely to grow as the benefits of creating a new merged unit start to take effect. This option may also be more attractive overall in terms of commercialization, as it will allow the SABC to build new advertising markets over time, rather than being expected to be able to exploit them immediately. Given the current profile of advertising planners, who tend to prefer exploiting tried and tested markets rather than taking significant risks, this may be a more financially stable commercialization scenario overall. From an educational perspective, the key requirement will be to ensure that, as SABC 1's revenue generation potential increases, educational television does not suffer the consequences of reduced airtime, particularly during prime time. For this reason, strategies to secure air time for educational broadcasting (on television and radio) will need to be part of the overall organizational model, as we describe in more detail in chapter nine.

What are Appropriate Roles for a Central Radio Unit?

In the case of radio, the broadcasting considerations are somewhat different, although educational radio is also significantly pressurized by the current drive towards financial self-sustainability within SABC. While this drive is necessary given the need to ensure a sustainable public broadcaster, educational radio usually finds itself under the greatest pressure given the difficulties it faces in attracting advertising revenue. Lessons learned by the SABC's central educational radio unit are useful in this regard. First, as we indicated in option one, educational radio works most effectively at a regional or local level, integrated into a more general radio channel. As experience has demonstrated, the best time for educational radio is not necessarily traditional prime time. This is because listeners are much more inclined to be busy at these times, keeping a radio on in the background and unable to pay particular attention to programmes. Thus, better quality audiences for many educational programmes are often found at off-peak times, which reduces the pressure to cut such programmes. Second, we believe that the only viable model for educational radio in the long-term is to maintain a coordinating unit at the SABC's centre, which takes responsibility for planning overall strategies and for securing funding for educational radio. This unit can also supply some of the content expertise required for educational radio, thus reducing the costs of educational broadcasting for regional radio stations. These content experts can then work in concert with producers at regional stations, thus ensuring the ongoing production of a wide range of educational radio programmes.

What Role is There for Satellite?

Another issue worth brief consideration is how best to exploit the opportunities created by the SABC's programming platform on satellite. In particular, the SABC has responsibility for filling Channel Africa – a television channel on DSTV – with locally produced programming. Although some educational material is broadcast on this channel, it is not currently particularly well branded as part of a dedicated educational broadcasting service. A long-term strategy could be to use this channel more systematically for repeat broadcasts of educational programming. This programming could then be accessed by DSTV subscribers throughout the continent, as well as by teaching and learning sites with the necessary infrastructure. While there are not likely to be many of these in the near future, they may be strategically well placed. For example, the Shoma Foundation is equipping teaching centres with such infrastructure, and this could be used for such purposes.

STRENGTHS

As we have indicated above, many of the strengths of option two have been foreshadowed in our discussions on the weaknesses of option one above. Nevertheless, for the purposes of consistency, it is worth outlining these again briefly.

A Stronger Educational Model

As we have stressed throughout this chapter, the greatest strength of option two is that it constitutes a much more effective educational model than establishing a dedicated educational broadcasting channel. Given the fairly narrow range of educational applications for traditional broadcasting, educational television and radio (particularly educative programming) both work most effectively when integrated into a balanced and diverse channel or station programming schedule. This observation is corroborated by the additional strengths mentioned below.

Spreading Broadcasting across Stations and Channels

A key reason why a ‘nested’ educational broadcasting service is most effective is because it can be spread out across a range of channels and stations. This is critical if educational broadcasting is to reach the widest possible audiences, an element fundamental to the success of any broadcasting initiative. With regard to television, we believe it will be more difficult to achieve this goal if SABC 1 is commercialized, as it will close off several opportunities for reaching the primary target audience of most educational broadcasting interventions.

Integrating Radio and Television Services

Linked to the above point is the advantage of merging the educational units of radio and television. This creates significant opportunities for cross-medium advertising, as well as for educational campaigns and interventions. Such an initiative is already in the second phase of planning to support adult education. In addition, it creates opportunities for financial rationalization, by merging various common elements of these two units. Such opportunities could not be exploited within option one, as a dedicated channel would absorb all available expenditure.

Reducing Commitment to a Single Technological Model

Also linked to the above point is that a ‘nested’ service requires no large-scale additional up-front investment in new infrastructure. For the reasons outlined above, a dedicated channel would require extensive new investment in transmission infrastructure. International experience demonstrates clearly that extensive investments of this nature can be problematic when they create such limited technological opportunities. This is because, if the strategy chosen is shown not to be working, the temptation is to try to extract some value from the initial investment by spending more money on it. This is a very dangerous self-reinforcing cycle, which has often led to massive financial wastage in educational systems.

A Reduced Financial Burden

This option is attractive because it requires significantly smaller investments by national government in educational broadcasting, particularly as much of the income required for educational broadcasting can be secured from broadcasting itself. This is explored further in option three below. In addition, detailed cost comparisons are contained in appendix seventeen.

Ensuring the Quality of Programming

A further advantage of ‘nesting’ educational broadcasting within more general programming schedules is that this programming has to compete more directly with other forms of broadcasting. The results of this have already been seen in the quality of many educational television series – such as *Soul City* – which have had to focus strongly on broadcast quality because they compete directly with other programmes (*Soul City*, for example, competed for some time with the SABC’s most popular programme *Generations*, with the result that some episodes have overtaken the latter programme in terms of viewer popularity). This is not intended to suggest that such competition is always healthy. Indeed, space does need to be created for educational programming that, given its specialized nature, will never be able to attract such large audiences. Nevertheless, the consequence of such competition is that it does raise the public profile of educational broadcasting, while specialized niche-oriented educational programmes also benefit from cross-pollination of this commitment to quality. While it is theoretically true to suggest that programming on a dedicated channel would have to compete in similar ways, we believe that such competition is weakened because it is a

competition for advertising revenue only, rather than a competition for revenue and airtime. Arguments explaining why educational programmes cannot compete for advertising revenue become easier to construct if airtime is guaranteed, which can easily lead to a dedicated channel's programming declining in quality and becoming a growing financial burden. As we have indicated above, once the initial investment has been made, it becomes progressively more difficult to disinvest given the scale of investment.

Building on the Expertise of SABC Television Education and Radio Education

Finally, we believe that a strength of option two is that it ensures that South Africa builds on the educational broadcasting expertise that has developed over the past few years within the SABC. This represents an important investment, which can easily be lost when an entirely new entity is established. Added to this is the large archive of resources within the public broadcaster, which might potentially be lost to educational broadcasting if a new channel were established and the relationships built up by educational radio and television over the past few years with different elements of the SABC were lost.

WEAKNESSES

Broadcasting – Rather than Education – is the Starting Point

In chapter five we described some of the problems associated with deciding how best to use broadcasting to support education and training, because these decisions are driven by broadcasting considerations rather than educational need and context. While this need not mean that educational broadcasting interventions cannot be educationally effective, it does nevertheless pose potential problems from an educational technology perspective. As we pointed out, however, broadcasting is simply too important a social entity not to make a contribution to education, as is evidenced from the existence of wide-ranging educational broadcasting services internationally (see appendix nine). The SABC has also taken several steps to ensure that any potential problems from this are overcome by effective strategic planning, in which it currently invests significant time and resources. Given the scale of educational need in South Africa and the importance of the broadcasting sector, this approach to educational broadcasting is, in our opinion, the most appropriate for the country.

Securing the Necessary Finances

Despite the relatively smaller investment in option two relative to option one, it will nevertheless still require a substantial investment yet presents no immediately obvious strategies to ensure financial sustainability without government support. This is not intended to suggest that investments in a 'nested' dedicated educational broadcasting service are not worth making. On the contrary, we believe that such investments are certainly worthwhile. Nevertheless, this does raise questions about how the necessary finances will be secured. This problem is discussed in detail in chapter ten.

Problems of Reception

Another problem shared with option one is the problem of reception. In recognition of this problem, for example, SABC Television Education focused between 1996 and 1998 exclusively on programming intended for use in the home. Nevertheless, in line with changing contexts and needs, it has begun to expand its range of services to include broadcasting intended for use in different teaching and learning sites, starting with schools (and extending to adult education centres in 2000). Option two, therefore, also creates a need

to develop strategies for educators and students to access broadcasts at a wide range of teaching and learning sites, including schools, community centres, colleges, the workplace, and universities and technikons.

An advantage that option two has over option one is that, given the smaller scale of investment, this rollout can take place slower and in a more evolutionary way. Nevertheless, there is a need to begin to roll out the required infrastructure systemically. As is described in more detail in the following chapter, we believe that, to be effective, this rollout will have to be coupled with extending access to a wider range of information and communication technologies if it is to become a cost-effective investment.

Cooperation between Radio and Television is not Easy to Achieve

A crucial component of consolidating the educational role of the public broadcaster in the descriptions above is the merger of the educational radio and television units. This merger is, we believe, justified in light of the wide-ranging opportunities it creates for collaboration. Nevertheless, effecting this merger in practice is likely to be difficult to achieve, a problem compounded by the physical separation of the two units currently, which are housed in separate buildings. Attention will need to be paid to making this merger work successfully, particularly in terms of deciding how to merge those functions which do not justify separate units for television and radio. As will become clear in the following chapter, however, this merger is not simply of academic interest; it is necessary to allow educational broadcasting to position itself to play an effective role as a fully-fledged multimedia unit able to exploit technological convergence in the most educationally effective ways possible.

SUMMARY

As the description above suggests clearly, a ‘nested’ educational broadcasting service covering both educational radio and television provides an educationally more effective and financially more sustainable solution than a dedicated educational broadcasting channel. It allows the education system to harness most effectively the educational power of both radio and television, in support of a wide range of formal and informal educational interventions. Despite this, it raises several challenges, most notably:

- How best to link the service to opportunities created by converging technological capabilities;
- The range of support strategies needed to run the service effectively;
- Strategies to finance the service; and
- Appropriate organizational models for the service.

Each of these issues is, therefore, considered in the remaining chapters of this report.

OPTION THREE: ROLES FOR THE PRIVATE SECTOR IN EDUCATIONAL BROADCASTING

DESCRIPTION

There are various possibilities of legislating for educational broadcasting across the full spectrum, which constitute a third option distinct from, but related to, options one and two above. Although various options are possible, we believe that the most viable is an option

which directly supports option two. In terms of this, private broadcasting channels and stations – including any commercialized SABC channels – are expected to make financial contributions to the sustainability of educational broadcasting on the public broadcaster. The following elements of this option are worth noting:

Educational Applications

The educational applications of this option are identical to option two, as the funding raised under this option would contribute to the sustainability of option two.

Ownership Model

Within this option, there would be no specific ownership model. Nevertheless, in order to ensure accountability, funding raised in this option would be channelled via the Independent Broadcasting Authority (IBA) to the SABC's new educational broadcasting unit. However, to avoid potential conflicts of interest embedded in this funding strategy, we argue that this funding should be channelled into the support strategies of the educational unit, rather than directly into its production of radio and television programmes. In particular, we believe such funding could most effectively be used to support the rollout of physical infrastructure required for reception of radio and television programmes. This funding would be overseen by the unit's advisory board, which would play a role in setting the broad strategy of the unit. Given investments made by the private sector, this board should include a representative of the industry on it.

Partnerships

Apart from the relationships between private broadcasters, the IBA, and the public broadcaster's education unit (together with its advisory board), this option requires no special partnerships. We do believe, however, that a coordinating mechanism could be established to facilitate partnerships between private and public sector initiatives wherever appropriate, thus ensuring that the private sector is not discouraged from making its own educational broadcasting interventions, but does this in a way that ensures maximum impact of all initiatives.

Key Expenses

The key expenses associated with this option would be:

- Completion of a legislative/policy process that entrenches requirements of licensing agreement;
- Administrative costs of collecting and disbursing funds;
- Running a coordinating mechanism to broker private-public sector partnerships as appropriate;
- Publicity and marketing for the coordinating mechanism.

Income

As this option primarily describes an income-generating strategy, there is no need to discuss income. We believe the income-generating strategy is best implemented through an allocation of a percentage of the broadcasting licence fee to an educational fund. Any operating costs of implementing the option could be drawn from the revenue generated.

QUESTIONS FOR CONSIDERATION

This option, which we believe should be regarded as complementary to both options one and two, focuses on the role of private broadcasting in education. In this regard, it is necessary both to consider minimum roles and ways in which to encourage broader participation by the private sector in supporting education through judicious use of broadcasting technologies. From this perspective, the following questions are important:

What Should be the Minimum Contribution of the Private Sector?

We believe that it is important for private broadcasters to play a clear minimum role in supporting education in South Africa, as part of an exchange for the rights to exploit public airwaves for commercial gain. This requirement, however, needs to create realistic expectations, both in terms of the private sector's contributions and in terms of government's ability to implement and monitor such requirements effectively. Many policy processes have set up noble goals and expectations of different social players without any reference to the difficulties of ensuring that these are implemented in a way that contributes effectively to social development. This issue assumes particular relevance in South Africa, where the skills and expertise needed to oversee and coordinate the implementation of such policy positions simply do not exist on the scale needed and where funding for such work is limited.

Consequently, we believe that ensuring a minimum role for the private sector in educational broadcasting should be as simple a policy position as possible. While there are possibilities of requiring the private sector to dedicate a minimum number of broadcasting hours or a minimum percentage of total expenditure to education-related broadcasting programming, this will quickly become a major administrative burden for the body required to enforce it (in the case, probably the Independent Broadcasting Authority or IBA). It will be fraught with political difficulties, and is also likely to lead to a range of long, unhelpful discussions about what constitutes educational broadcasting.

Given these realities, we believe that the minimum role of the private sector in educational broadcasting should be limited to a financial contribution to the implementation of options one or two. This requirement should be built into the broadcasting licence fees of private broadcasters and should be calculated as a percentage of the total licence fee. Administration of this process could be handled by the IBA. Implementation of this requirement would then reduce financial burdens of options one or two on the national fiscus.

Should the Private Sector be Encouraged to Play a Broader Role?

A second question flowing from the first is what further roles the private sector might be encouraged to play with regard to educational broadcasting and whether limits should be set on this. At one level, this would appear to be a simple question to answer: of course the private sector should be encouraged to play a broader role as part of their contribution to social development in South Africa. However, this question is complicated somewhat by the corresponding danger that arises of fragmenting total expenditure on educational broadcasting. If money that might have been channelled into the implementation of options one or two is used for separate initiatives, there is a danger that, in losing opportunities for merging this expenditure, the impact of these initiatives will also be fragmented.

This concern certainly has validity, but there is little experience to suggest that attempts to centralize control of initiatives by forcing the private sector to contribute only to a public

sector-driven process will improve the educational impact of these interventions. It is more likely to lead to political contestation and private sector disenchantment with any involvement in educational broadcasting. In addition, we believe that models of successful and sustainable cooperation between the public and private sectors in educational broadcasting have been evolving in South Africa over the past five years. Examples, of these include the work of the Shoma Foundation (which works with national and provincial governments), the Learning Channel's partnership with the SABC, and the role of private producers in the SABC's educational broadcasting interventions. These have also been augmented by growing roles for non-profit organizations in supporting educational broadcasting, such as the work of Soul City in producing a multimedia health education intervention and the Media in Education Trust's development of print resources to support School TV.

Consequently, we believe that more effort should be put into reaping the benefits of negotiating these kinds of partnerships. This could be achieved through the establishment of a coordinating mechanism charged with brokering better relationships between all key role players in educational broadcasting. More importantly, such a mechanism should take responsibility for linking educational broadcasting initiatives with a range of other interventions, particularly with a view to ensuring that the kinds of support services outlined in option two are implemented and effectively coordinated. In effect, this role has been the responsibility of the Centre for Educational Technology and Distance Education within the national Department of Education and therefore we believe that it should reside there. The organizational implications of structuring this more formally into the work of this Centre are discussed in chapter nine.

STRENGTHS

The primary strengths of the above option can be summarized as follows:

Generating Income to Support Option One or Two

The most obvious strength of option three is that it contains one strategy for raising the income necessary to support option one or two, without adding any particular administrative burden to current government systems.

A Simple Strategy for Involving the Private Sector

Because this option does not involve any major minimum responsibilities on the part of the private sector, it also minimizes the administrative problems that might be associated with its implementation. Variants of this option, which might have included requiring private broadcasters to agree to minimum hours of educational broadcasting or spending on such broadcasting themselves add a whole new dimension to management of the broadcasting sector. By minimizing the expectation placed on private broadcasting, the likelihood of ensuring successful implementation are increased.

Focusing on Building Partnerships

Another strength of this option is the parallel focus on fostering effective partnerships by building on the lessons that have emerged over the last few years on how to achieve this effectively. Given the massive strides made in educational broadcasting since 1994, we believe it is critical to build on these successes rather than trying to start from scratch with new processes. This option incorporates a clear strategy to achieve this.

WEAKNESSES

Broadcasting – Rather Than Education – is the Starting Point

As with option two, the major weakness still with this options is that decisions still tend to be driven by broadcasting considerations rather than educational need and context, although to a lesser extent than in option two. This problem would also be reduced by location of the coordinating mechanism with the Centre for Educational Technology and Distance Education, given its location squarely within the educational sector.

CONCLUSION

This chapter has outlined in detail a range of options for educational broadcasting in South Africa. As the various discussions have made clear, we favour a combination of options two and three, and will soon turn our attention to the organizational and financial implications of these options. Before doing this, however, it is critical to explore the possibility of harnessing convergence of information, communications, and broadcasting technologies, as this adds a significant new dimension to the above options. As we will demonstrate in the following chapter, it also informs the approach that might be taken to implementing options two and three successfully.