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The potential use of television for education in the south african context

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The Foundation itself, as a quasi-government institution reports to the State Secretary of Education, but since it is independent of the formal structure of ministries it is theoretically able to operate with a fair amount of flexibility. A significant feature of the project is its lack of reliance on foreign financial aid - it is almost entirely dependent on locally available financial resources from the State itself.[70] Oliveira states that:

> "the Foundation was set up with the initial task of developing a comprehensive educational system aimed particularly at the fifth to eighth grades and serving the whole State. Subsequently, lack of a more powerful transmitter led to its efforts being confined to an area within 100 kilometres of São Luis."[71]

In terms of the context of the project it is also important to note that although television was the major feature of the project, it was not its "central organising principle."[72] Although direct instruction was one of the Foundation's major aims its basis was a philosophical one aimed at uplifting the social, emotional and psychomotor development of children (particularly those belonging to deprived families living in the slums of Saõ Luis). With this in mind, FMTVE's original plans contained this statement (which exemplifies the programmes consistent learner-oriented pedagogical method):

> "The working unit is not the traditional classroom but a small group inside the class comprising six or seven pupils. Group dynamics, group teaching and learning, and peer tutoring constitute the basis of the educational

process. The teachers (monitors) play a key role in providing leadership for the small groups making up the class. Television and the accompanying documents are to constitute coordinate learning media, without one medium....in any way predominating over the other. Remedial courses for students lagging behind are to be organised on an individual basis, making the greatest possible use of peer tutoring."[73]

This philosophy has remained the basis of FMTVE's operation and likewise, classroom activities have also remained true to the original intention. These according to Oliveira (1979) include

"(1) a stimulus in the form of a challenge situation at the end of each televised programme; (2) reflection, either individually or collectively, with a view to developing an analytical and critical spirit; (3) individual or collective response (activities) to the stimulus, in order to complete the process of integration; and (4) collective evaluation of individual and group products, and synthesis. Every class follows this learning cycle every day for each subject studied."[74]

It is relevant to examine the organizational (see Fig.9.1) structure of the Foundation for two reasons: first, the project is outstanding amongst other Third World applications of ETV for its use of indigenous staff and second, the present organizational structure is the result of a number of changes thought necessary to improve its operation - an unusual example of willingness to learn from past experiences.

Fig 9.1 The Organisational Structure of Brazil's FMTVE[75]

Board of Directors

Director-General

- Planning
- Organisation and management
- Project management
- Human resources

Administrative Director	**Educational Director**	**Technical Director**
· Finance	· Cultural	· Operations
· Stock	· Curriculum	· Maintenance
· General services	· Studies, research and information	
· Personal		
· Reprographic services	· School system	
Staff Total : 232	Staff Total : 633 incl 488 monitors	Staff Total 76

The Foundation as an entity in itself is responsible for the running of its headquarters, deciding where televison programmes are to be produced and, significantly, for the public school system in São Luis (including the construction and maintenance of school buildings, pedagogical supervision and certfication of students). Following on from this the Director-General who (together with the other directors) is an appointee of the State Secretary of Education, has to negotiate for funds with the Secretary and other ministerial officials. In addition to this (and in a relative sense) Oliveira attributes significant power and influence to the Educational Director's division, attributing this pre-eminence to the fact that

these staff were important from the start of the project and have always been associated with the consistent emphasis placed on the pedagogical philosphy which permeates the entire system. The manifestation of this emphasis is what Oliveira describes as an "exaggerated emphasis on documentation, written documents, evaluation and control."

Decision-making and the review of objectives are fundamental features of the project as a whole, and the way in which these two processes occur is indicative of the relative involvements of the Ministry and the Foundation. Occasionally, the Ministry of Education announces overriding policy decisions with which the FMTVE and its staff are compelled to comply. However, as a whole the decision-making process is described as one which occurs within a "quasi-rational framework" within the Foundation itself. According to Oliveira, if decisions "concern matters such as technical details of expansion of the television system into rural areas or the purchasing of materials and equipment"[76] they occur within this quasi-rational framework. Decisions about personnel, daily operations, production techniques or allocation of studio times, however, are based on traditions, rules, bargaining etc.[77]

Staff immediately under the Director-General and the Director-General himself have an important decision-making function since they are directly responsible for collecting and distributing information, preparing reports and participating actively in most decision-making meetings. In this way decision-making is centralised and monitors

and supervisors have a minor to non-existent influence over initial decisions since "standard forms and standard meetings characterise communication between the field and headquarters."[78]

By 1982 the FMTVE remained faithful to its original objectives and no formal review of its general objectives had occurred. It is suggested by Hawkridge and Robinson that the Foundation lacks the means do so and, in addition to this that it is highly unlikely that anyone, except the Ministry itself, would question the project's viability.

With respect to production and distribution FMTVE adheres to its policy of independence by using its own facilities to produce and transmit programmes. Tapes are made daily in the studios.[79] However these conditions are not ideal since the hardware is a mixture of modern and obsolete equipment, spares and tapes are in short supply and well trained maintenance staff are difficult to find. Production is carried out by teams of college-trained staff who are divided into three groups:

(i) curriculum planners who design instruction and who "prepare course outlines, specify conditions for television programmes and write the scripts and monitors' guide";[80]

(ii) television production staff and

(iii) textbook writers who work in close collaboration with the curriculum teams.

According to Oliveira, however, there is little cohesiveness among

these groups who are often at odds as to exactly what makes "good" programmes and whether programmes should adopt an authoritarian or a heuristic approach.

An outstanding feature of the project is its consistent emphasis on the importance of training. It is usually offered in Maranhão and occasionally a few staff are sent abroad. The courses offered within the State itself are usually administered by consultants from Brazilian universities and only occasionally by foreign experts. Paramount among the Foundation's recognised training needs have been "socialisation of its staff into the pedagogical doctrines, methodologies, and techniques fostered by the originator of the project, who put great emphasis on educational considerations."[81]

In spite of a number of serious shortcomings (some of which have already been implied and others listed below) the highly unconventional utilisation of the programmes (in terms of content and form) has been unexpectedly successful.

The schools[82] themselves are located on the outskirts of São Luis, in a low-income area. The most traditional aspect of the system is the fact that schooling occurs within a building set aside for that purpose - but this is where conventionality ends. The institutions themselves are simply a set of classrooms, without principals and minimal secretarial and administrative staff. The "schools" are actually run by supervisors and monitors who are expected to run them according to local circumstances and context.

> "On average, there is one monitor for each of the 300-odd classrooms, with the task of encouraging students to carry out activities suggested by the monitors' guide (and implied by the challenge question at the end of each programme); of ensuring that individual and group work is well organised; of obtaining student attendance, attitude and achievement records, and of meeting weekly with a supervisor to discuss lesson plans and administrative matters."[83]

Students do not belong to a class in the traditional sense, but rather work in groups of six or seven or individually. Each month the group elects a leader and a *rapporteur*. The leader's function is to pose questions or suggest group activities. Surprisingly although discipline problems do exist, Oliveira reports that they are fewer than those in traditional schools in Brazil and that groups continue working even after monitors have left the classroom. Over and above "formal" schooling there is an unusually high degree of interest in extramural activities (such as science, sports, drama and civil and political clubs) which surpasses that of conventional schools. Supervisors visit each monitor weekly, and report to headquarters monthly - each supervisor is "in charge" of approximately ten classrooms. Promotion occurs, as in ordinary schools, on the basis of certificates.

FMTVE has always placed a great deal of emphasis on evaluation of

effects and feedback to provide input for changes in the television material. At the most basic level monitors and supervisors keep detailed, up-to-date records of student attendance, achievements and attitudes. These records which are submitted to the FMTVE headquarters, form a centralised core of reference material. Similarly, there is a formal system for collecting data to be used for evaluating and raising the curriculum. It is apparent, according to the Hawkridge and Robinson analysis, that students in the FMTVE schools do as well as those in ordinary schools but, since all schools set their own standards of achievement according to their context, it is difficult to be absolutely sure on this issue.

9.5.1 Consequences, Results and Effects

As in the other case studies, both positive and negative features[84] of the project exist and these are listed below:

(1) In the opinion of Oliveira the Foundation appears to have lost its sense of mission in the sense that many of the students' needs, and alternative or new ways of meeting those needs, are not being attended to adequately. On the other hand, he commends the overall independence and self-reliant spirit of all of those involved in the project and notes that FMTVE has neither received nor contemplated accepting foreign aid.

(2) Decision-making, which is highly centralized, precludes the active participation of those at grass-roots level.

(3) Although the form and content of the programmes themselves are consistently reviewed and improved upon, any revie

of general objectives is non-existent. Moreover, "there is no governing council consisting, say, of informed members of the public, to question whether the present objectives are appropriate. Oliveira clearly believes that the executives of FMTVE are unable to change their approach."[85] On the other hand initiative and adaptability are indicated by the Foundation's personnel training system and its attempts to constantly improve the curriculum and to accommodate to internal and external pressures through reorganization.

(4) In terms of production and distribution it has been noted that the chances of innovation occurring are minimal since most of the people who set up the Foundation have remained with FMTVE and that as a result of this, few "high-level" people from outside have joined the system.

(5) The central staff (at FMTVE headquarters) show less concern for what is actually happening in the schools than for production although attempts are currently being made to give more credit and recognition to the influence of supervisors and monitors.

(6) Along with a shortage of well-trained technical staff for the transmitter, reception is sometimes poor.

(7) The pedagogical method itself is innovative and non-traditional. In spite of the adverse conditions and a certain lack of innovatory insight the Foundation has managed to develop and expand its activities to include a secondary school course for out-of-school adults, a literacy programme

and cultural programming for more advanced students and it has considerably limited the dropout level (at secondary level).

Oliveira concludes his case study with some relevant speculation about the project's future in which he points out that FMTVE faces a dilemma as an institution. His conclusion, relevant to ETV in South Africa appears in full below

"For a variety of reasons it is under pressure to grow. However, there are also important forces limiting growth, ranging from economic difficulties to political conflict. Internally, there is also institutional limitations and administrative processes that make growth a difficult task. To the extent that FMTVE does not expand, its unit costs will grow increasingly.....Thus the project will become difficult to justify financially. Moreover, the existence of an improved supply of certified teachers, particularly in São Luis, will constitute a serious threat to the justification of a tele-educational system particularly.

As far as operational expansion is concerned, implementation has proved to be very difficult and almost uncontrollable. Physical facilities for broadcasting have been set up, but tele-classes are a serious problem. There are local difficulties and resistance from certain communities. The present expansion, as it is, has created additional

operating costs without diminishing average costs.

From an external perspective, to understand the difficulties created by FMTVE's environment is to understand the whole context of underdevelopment: depending upon external centres of power and decision-making; an irresponsible system of tax collection coupled with insufficient resources and inadequate redistribution of income, creating barriers for a more rational use of resources.....a heightened political climate for every decision with little opportunity for input from the apathetic and under-represented groups; a low level of societal organisation with too much dependence and reliance on government actions and initiatives and too little local pressure for better educational (among others) services; isolation, distance from more developed centres, limited human resources, and a very slow pattern of administrative modernisation.

FMTVE by comparison with other government agencies in Maranhão can still be considered exceptional due to its internal dynamism, risk-taking behaviour, innovative character....average age level....and average level of education of its staff....The idea of a Foundation without self-support, however, is only an administrative tool of decentralisation and leads to very limited flexibility.

In the broader context of tele-education in Brazil, there

was the exception, back in the early 1970's, that educational TV would become a high priority in the Ministry of Education's agenda and that resources would flow into that sector. This exception was not fulfilled. The four experiments in the field had to fight, each in its own way, to establish legitimacy and conditions for survival.....

[Within FMTVE], charismatic leadership must become institutionalised...The pedagogic ideals, the organisation of work groups, the curricular orientation, the values and ideologies pervading the technical staff...were all closely coupled elements of....FMTVE in the formative years...The values remain in the offical speeches, in the documents and plans, in the formal aspects, in the formal structures, and in most of the explicit contents. Actual behaviours, however, have followed another path: format takes precedence over content; the appearance of innovation, not innovativeness, becomes solidified and change avoided. The headquarters staff has become increasingly distant from monitors, students, and daily activities; education has become a ritual; curricula are updated formally and lose their initial connection with the social reality of the intended clientele....There has not arisen a single individual able to substitute for the initial leadership. A reasonable number of people have become, at most, repeaters and advocates of the initial

idea. But no alternative new propositions have emerged: the initial impulse to adaptation was short-lived and, with time, routines took over. Rigidities in the composition of personnel, very few changes in the characteristics of pedagogic leaders, no long-term activities for high level training of staff, no new blood, are all factors that have contributed to a certain crystallisation of the original innovation instead of the development of an innovative organisation. The incentive system rewarded allegiance to the old values and norms of behaviour, but there have been no institutional conditions to reinforce individual initiatives which would lead to substantive innovation and change.

Another fundamental failure of the system as a whole is its imperfect and inadequate incorporation into the regular educational system. The new system, to be innovative, is created as a parallel structure; and then fails to be successfully integrated. In the case of Maranhão, there are other problems besides using a different teaching technology that is not fully legitimised by either the regular staff of the State Ministry of Education or the local educational establishment. In particular, at the moment the level of monitors' salaries is a major problem. As they obtained prestige and political organisation, and as they raised their level of schooling, monitors of FMTVE improved their salaries faster than regular public

school teachers. This creates an additional difficulty for integration as the State cannot lower monitors' salaries or increase teachers' salaries to the level of FMTVE's monitors." [86]

In spite of this pessimistic assessment of the project's future it must be noted that in 1984 FMTVE remained a force in Brazil's education system as a whole, and has provided a basis for other regional tele-education projects. It is, in addition providing good examples of potential problems which might be experienced even in the most successful of ETV projects.

9.5.2 Satellite Education in Brazil

In terms of ETV's potential as an educational agent it is worth noting that small projects (like FMTVE) and other successful applications of educational radio and television in Brazil, have resulted in the proposed launching in 1985 of its domestic satellite system. According to the authors of an article on national capacities for tele-education:

> "over the past 20 years it has progressed from fairly simple radio distance teaching programming to current production of educational programmes for both private and governmental TV channels. Plans are in progress for the 1985 launch of BRAZILSAT, the Brazilian geosynchronous communication satellite system. Designed to cover the whole Brazilian territory with a reasonably transmitted power pattern, BRAZILSAT will facilitate the reception

of TV programmes by relatively small earth stations. In anticipation, the Brazilian government has recently established an important project for the development of nation-wide TV programmes in the areas of education, health-care, and agriculture, among others."[87]

9.6 The Indian Satellite Instructional Television Experiment (SITE)

The *Satellite Instructional Television Experiment* in India must surely be one of the most exhaustively analysed case studies ever recorded. Its organization, operation, merits and failures have been argued and described by researchers from all over the world. This dissertation will provide a brief description and analysis of the experiment emphasising the areas relevant to the consideration of the potential of ETV in the South African context. This case study will be based mainly on that of Kiran Karnik (1979)[88] which is described in Hawkridge and Robinson (1982).

Although SITE was largely a technical feasibility study of satellite transmission in a developing country, it had an important educational broadcasting component which significantly influenced future ETV and satellite ETV projects. The project has been summed up briefly but concisely by Pelton and Filep (1984):

"The Indian Satellite Instructional Television Experiment (SITE), conducted in 1975, was designed to promote family planning campaigns, improve agricultural practices, and promote cultural and social integration of the vast states

> of India. The experiment ran with a level of reliability in both hardware and programme delivery that rivals US experience under much less difficult conditions. More than 90 percent of the more than 2 000 participating communities received broadcasts of excellent quality at any particular time, and they consistently appeared on schedule. SITE included 2 300 reception locations. Although this was a small proportion of the 500 000 villages of India, it still represented a significant step toward large-scale systems that make investment in equipment and programming worthwhile. The experiment demonstrated that the community broadcast satellite can be a reliable technological system for reaching large numbers of widely dispersed and heterogenous populations at a reduced cost."[89]

This is a concise synopsis of a highly complex operation and it is necessary to provide a more detailed account which appears blow:

SITE as Hancock (1977) states, was designed as a cooperative venture between India and the USA. It was based on an agreement in 1969 between the Indian Department of Atomic Energy and NASA (the National Aeronautics and Space Administration of the United States) who supplied the satellite for one year from August 1975. Both parties had their own, independent functions and intentions. The United States hoped to demonstrate the potential value of satellite technology for mass communication and education in the development context. To this end, as already mentioned, they sent into space the powerful ATS-6 satellite capable of receiving signals from earth

transmitters and broadcasting directly to cheaply produced, 3 m chicken wire antennae located in remote Indian villages. Television sets were placed in schools and were used by children in the mornings and adults in the evenings. India, on the other hand wished to stimulate national development and use the experimentas a feasibility study and to gain experience in satellite broadcasting. It was responsible for supervising ground reception, including technical design and implementation, programming and evaluation.[90] The experiment was "the first occasion on which the government concerned itself not only with the production of rural-interest televison programmes and their transmission but also with their wide-scale social consumption."[91]

Over 2 300 villages in six geographical clusters were included in the experiment since the satellite was able to broadcast to a large part of the country. The choice of clusters was a practical one since this rendered equipment maintenance easier and provided comparatively homogenous groups of sufficiently large size for social research purposes.[92] Amongst the studies undertaken were those to establish the villagers' needs and to identify audience characteristics.

The organizational structure of SITE contributed directly to the ultimate success of the management but it was an exceptionally complex structure for two major reasons: first the large number of actively involved agencies and second, the multiplicity of objectives.

The key agencies in SITE were: the Indian Space Research Organisation (ISRO); Doordarsham (DD) which is India's National Television Authority; the Indian National Council of Educational Research and Training (NCERT); All-India Radio (AIR) and NASA.

Neither Karnik (1979), Hawkridge and Robinson (1982) or Block, Foote and Mayo (1979) go into detail concerning the organizational structure of DD which became part of AIR in the middle of the project's life. "AIR, then DD, was responsible for programme production centres and transmitters for the majority of the television programmes. DD's structure was centralised with Dehli controlling other stations. It had the capacity to produce very quickly the extremely large numbers of programmes needed by SITE."[93]

With the ISRO responsible for overall planning and management, SITE was characterised by a system that was flexible and responsive.[94] Since the project was unprecedented the management actively endeavoured to avoid the liabilities of traditional bureaucratic management structures. Some of the features which led to the success of the system are discussed below.

The ISRO heritage as described by Block, Foote and Mayo (1979) was that of "a problem-solving research and development organization, whose patterns or organization and approach were derived from its work on large-scale applied physics and engineer-related activities. This background imposed an R & D character into many SITE-related activities - the entire hardware installation and maintenance system;

the classroom television programmes on science produced by ISRO; and the general organization of the project, which ISRO coordinated."[95] Thus, in spite of the massive involvement of diverse agencies involved in the project, the working style of the "ultimate authority" was well defined and rigorous, as were the goals and organization of individual projects. This high degree of organization did not, however, render the means of achieving projects inflexible as is evidenced by the high priority placed on "mid-course corrections." Hawkridge and Robinson (1982) summarise Karnik's description of ISRO s management/organizational structure as follows:

> "At the highest level, ministries of the national government of India were represented in the Secretaries' Committee, which considered national policy regarding SITE, with participation from potential "user" ministries such as Health, Education and Agriculture as well as from 'provider' ministries, namely Space and Information and Broadcasting. For more specific decisions, two interministerial committees were created to co-ordinate SITE, but in fact they were not very active. The Secretaries for Space and for Information and Broadcasting, responsible respectively for ISRO and AIR/DD, constituted the Apex Committee for the project and this committee took ultimate decisions regarding collaboration between the two organizations.
>
> Yet, says Karnik, the all-important ISRO-AIR/DD interaction took place primarily through the ISRO-AIR/DD Working Group, which consisted of persons actually responsible

for SITE, from the two organizations. If there was no disagreement in the Working Group, its decisions were automatically ratified by the Apex Committe. The group turned out to be very effective; it could not afford to reach an impasse, although frequently there was lengthy and heated debate. This effectiveness was the more remarkable in view of considerable organizational differences between ISRO and AIR/DD. The latter was an operational agency with many years of experience, says Karnik while ISRO was relatively a new research and development group with no previous experience in television programme production or utilisation.....The Programme Manager for SITE had overall responsibility for the project within ISRO Several ISRO divisions were given specific areas of responsibility (for example for earth stations, studios, etc), heads of these divisions, which had other work as well as SITE, were designated Project Managers for the SITE activities in their Divisions. Project Managers were involved in two lines of management: to the Programme Manager, SITE, as well as to the Chairman of ISRO (and later, to the Director of the Space Applications Centre). The Chairman of ISRO is Secretary for Space in the Government."[96]

The day-to-day operations of SITE illustrate the previously mentioned highly organized but flexible working style of the management. According to Block, Foote and Mayo (1979) all project ope-

rations were coordinated by an internal ISRO entity, the SME Management Board. This Board, together with the Programme Manager constituted the so-called "Management Office." The Office was responsible for organizing, scheduling, budgeting, manpower and facility planning and liaison with Indian and foreign agencies. The Board on the other hand took major decisions about the role of ISRO in SITE, or sent recommendations to the ISRO chairman for final decision. Its functions included "development, procurement, deployment and maintenance of the community receivers and earth stations; design of execution of the research plan; relations with state governments as well as other agencies, both domestic and foreign; and finaly, ISRO's own televison production activities."[97]

During the height of the project the Board held daily meetings to co-ordinate the considerable delegation of powers conferred on the engineers, software and research specialists and the professional managers working on SITE. This delegation of authority together with the characteristically active policy debates within the Board became the norm and the experiment thus adopted a form of operation quite different from the typically hierachical communication structures and decision patterns of most bureaucracies. In addition to this, each individual manager was responsible for planning and budgeting of one of SITE's subsystems. "Active monitoring by the project managers was apparently successful insofar as it helped them to identify and find solutions for potential problems before they assumed crisis proportions."[98]

In terms of organization and management, both ISRO and SITE as a whole were fortunate to be able to draw from a large pool of skilled personnel (unusual for most Third World contexts) who were hired for the duration of the experiment only, rather than as life-time civil servant-type employees.

Low-cost television equipment and direct reception systems with easily replaceable components were developed by certain divisions of ISRO, while a Software Systems Group carried out programme production, research and evaluation. It has also been noted that the ISRO producers had a great deal of freedom in planning and executing their programmes within the general objectives of the ISRO.[99]

Karnik summarises the original objectives of SITE as general, instructional and technical:

> **"General Objectives**
>
> Gain experience in the development, testing and management of a satellite-based instructional television system, particularly in rural areas and to determine optimal system parameters. Demonstrate the potential value of satellite technology in the rapid development of effective mass communications in developing countries. Demonstrate the potential value of satellite television broadcasts in the practical instruction of village inhabitants. Stimulate national development in India, with important managerial, economic, technological and social implications.
>
> **Instructional Objectives**
>
> Undertake instruction in the fields of family planning,

agriculture, national integration, education, teacher training etc.

Technical Objectives

Provide a system test of satellite television broadcasts for national development. Enhance Indian capability in the design, manufacture, deployment, installation, operation and maintenance of broadcast and/or distribution facilities. Gain an opportunity to determine optimum receiver density, distribution and scheduling; to determine techniques of audience attraction and organization, and to solve problems involved in developing, preparing, pr ng and transmitting televison programmes.

These objectives were kept under review by SITE's various committees.....but were not changed during the project. In addition, a statement of objectives (Credo) was drawn up for programme production for each major series, such as the science series for children. This formed the basis for detailed briefs for each programme."[100]

It must be noted that an underlying objective of the experiment was to achieve localisation. Provision was made for local maintenance centres staffed by a technician equipped with a jeep and supplies of spare parts and SITE's high level of technical success has been attributed to a combination of detailed system planning, rapid adaptability to technical adversity and the insistence on local responsibility for local problems.[101]

The Production aspect of SITE will not be described in great detail, however certain features are important to note. AIR/DD staff for SITE received their training at India's Unesco-supported Television Training Centre. Many of the staff members that were recruited had no previous television experience or training - a characteristic which was regarded as an advantage rather than a handicap since such staff were considered as unprejudiced by the Western bias of urban television.

It is appropriate here to examine some of the choices and problems that SITE had to face in terms of its aim to use television instruction for rural development since many of these aspects would apply to the consideration of the potential of developmental ETV in South Africa. Many of the choices made were conditioned, determined or constrained by the choice of satellite broadcasting the characteristics of which are described by Block Foote and Mayo:

> "An attractive, if unproved, argument for direct satellite broadcasting to rural areas is that the customary urban orientation of television can be avoided....A communication satellite makes it technically possible and financially feasible to programme for a rural audience initially, without first passing through an urban programming stage. Thus, the opportunity exists to base programme judgements on rural needs and, ideally, to establish national television as a predominantly development-oriented medium, provided that an institutional commitment to rural needs exists.

> A somewhat countervailing characteristic of satellite broadcasting, however, is that it may accentuate the bias already existing within most countries toward central programme design and production. Such a tendency may have been both an advantage and a disadvantage in India. It was an advantage in so far as it facilitated the delivery of certain programmes, such as news, to the entire nation simultaneously. It was a disadvantage in that there were limited types of such programmes that were universally applicable to all parts of the country. This tension between programmes adapted to local conditions and programmes capitalising a mass coverage capability affects all broadcasting activity, but it is most severe for satellite broadcasting. India's solution was a decision to combine national and regional programme origination."[102]

Having come to terms with integrating the satellite into the project in terms of its technical and programming implications, the producers were also compelled to take into account the major ethnic, regional and linguistic differences of its potential audience. Furthermore, many of these differences involved agricultural practices and conditions and were even detected in the level of economic and educational development, and in local resources as well.[103] The planner's response to this in terms of production was to create three Base Production Centres in different regions. At these centres local language programmes were produced and local talent used -

everything was biased in favour of local needs and characteristics.

As an experiment-within-an-experiment the localisation approach was taken further in the Kheda district of Gujarat state where "national programmes were supplemented by programmes produced especially for the Kheda district....thereby reaching a much more local and homogenous audience than the coverage from the local stations."[104] In this way programming was targeted more precisely, local priorities were given special consideration, feedback was more rapid and effective and a greater integration with local institutions resulted. "Attendance in this district was consistently high, more than double the national average. In a subsequent national study for India's operational system, the greater degree of localisation of the Kheda model was recommended for future implementation."[105]

The operational procedure in ISRO's programme production is another aspect of production that is relevant. Objectives were set according to those contained in the Credo and these formed the basis upon which programme briefs were written. According to the Hawkridge and Robinson's summary of Karnik's case study.

> "Each brief centred on a particular topic and laid down the objective of the programme, its relevance to the rural child, and suggested approach and take-off point (from a common village situation or object). Each producer then chose a set of briefs on the same topic, he or she made the programmes for that topic unless the Manager of the Production Cell was obliged to change the allocation

to ensure full coverage of topics without duplication."[106]

Scripting and costing were equally rigorously examined before the actual production stage and in certain cases pre-testing was carried out. The producer was also indirectly responsible for preparing notes on each programme for the teachers' use.

A fundamental problem on this software side of the operation was the lack of precise definitions of what the programmes were intended to accomplish, more especially for the evening community programmes.[107] General objectives, used as guidelines encompassed a variety of developmental concerns including health, family planning, nutrition and agricultural programmes. However, within this broad range there were no clear priorities or overall strategies to guide the choice of formats and specific contents. Eventually a wide variety of formats were used including those that informed, taught specific skills and some that simply entertained. In terms of content themes it must be noted that many were derived directly from social norms and customs rather than themes directly related to government agenices. Producers exhibited a rather courageous attitude toward taboo subjects such as widow remarriage and used them in certain programmes. Likewise, innovations were boldly suggested - particularly those relevant to farmers and their children.

The evaluation of effects was given exceptionally high priority during the experiment. Although very few SITE programmes were pre-tested, "scripts were pre-tested by reading them aloud in villages

to see whether they contained language that was too difficult and to ascertain how much interest they evoked.[108]

Evaluation of the programmes themselves occurred each day during the experiment when data was collected by one researcher who went to each of twenty-five villages to interview respondents after the broadcasts. Villages were asked which programmes they preferred, which they found most useful and whether they understood the content. Included in this evaluation were questions about reception, quality and programme length. This was carried out for children and adult programmes and results were compiled and given to programme producers. Karnik notes that evaluation of the social impact of SITE also occurred including a large-scale longitudinal survey of the social impact of the experiment on adults; the cognitive development of children; the changing attitudes of teachers; a message system analysis (aimed at determining what was transmitted and the previously mentioned holistic anthropological studies (like the one in Kheda) to examine rural communication before SITE and the change it brought about at the local level.

9.6.1 Results, Consequences and Effects

Karnik summarises the main findings from SITE as follows:

> "(1) average daily attendance per set normalised at 80-100;
>
> (2) about 30 percent of Indian people who had had no previous contact with a mass medium were reached by SITE;
>
> (3) audience preferred instructional programmes to pure

entertainment;

(4) children's programmes were intended for those aged 5-12, but were understood best by the older ones in this range;

(5) those who viewed most gained most knowledge; regular viewers gained more than occasional viewers;

(6) illiterates, particularly females, gained more than literates in the area of overall modernity;

(7) a large number of agricultural innovations were triggered by the television programmes, although the evidence of their ultimate success was mixed;

(8) there were substantial gains in health, hygiene and nutrition; female viewers, particularly illiterates, made dramatic gains;

(9) children watching the morning programmes gained in language development and other areas. More children watched than were registered students in the school."[109]

These are, of course, the most important positive results of the project and to counterbalance this, a brief statement of certain problems and negative consequences (and some additional successes) should be added.

The problem of the vast number of regional languages and dialects was met by selecting several languages for broadcasting. This solution generated a number of its own problems. An anthropological report on several villages by Dr Binod Agrawal states:

"The linguistic profile of these villages shows a higher

> use of dialects than the standard language of the region.....More of the languages spoken in the villages were used on TV except in Dadusar where Charantari was utilised to some extent. Furthermore, the use of English-sounding technical names (in programmes on agriculture and animal husbandry) compounded the problem.....If the programmes were entertaining enough in terms of songs and dances, language did not become a barrier."[110]

In addition to this

> "Because the satellite transmitted only one video channel at a time, the broadcast of different regional programmes necessitated scheduling programmes at different times for each reception cluster. Attendance suffered in areas where time gaps occurred between the nightly national programme from Dehli and the local language broadcasts. In such instances, village viewers either had to sit through programmes they could not understand or leave and return later. Conflicts between particular time slots and a range of local conditions and commitments (eg, conflicting meal or work hours, cold weather, etc) were frequent problems associated with SITE's fragmented broadcast schedule."[111]

It was noted, however, that this scheduling problem was later reduced by having two separate video channels in the planned INSAT system.

On a much broader level it has been argued that although SITE was an unqualified success in terms of hardware and technical operations,

its success in terms of social education is questionable. Raghavan attributes this lack of success to the fact that there were only three base production centres to make programmes for villages with vastly differing cultural, economic and agricultural backgrounds. Therefore, area-specific programmes were minimal. He states that:

> "it is a truth apparent to common sense that decentralised and area specific programmes, employing the local dialect and depicting the local agro-economic and human landscape, are necessary in any attempt to persuade people to change their attitudes and practices in agriculture or hygiene or even more so, in family planning."[112]

Block, Foote and Mayo (1979) on the other hand attribute the lack of social impact to the fact that there was no clear agreement on SITE's specific social goals and objectives. They assert that, had clearer definitions existed, they might have had more success in resolving such issues as:

> "(a) whether to promote sustained viewing by a larger audience or to try to attract a smaller, but more homogeneous viewing audience; (b) what role to assign entertainment in either of the above strategies; (c) what other media to employ to supplement television, and (d) how to adjust the programme mix once feedback data from the field became available."[113]

They suggest further that these social education difficulties are not peculiar to satellite education projects in particular but are inherent in almost all non-formal education programmes which are intended for large audiences with such general development objectives in mind. They suggest that the most demonstrably successful projects of recent years are those with specifically targeted populations and objectives.

Another negative feature of the project was the fact that the rural villagers were somewhat suspicious of the "inquisitive" [illegible]chers and officials, particularly since the experiment occ[illegible]ing a state of emergency. For this reason, it is possible that research questions were treated with suspicion and were not as candidly answered as they could have been.

In spite of these fairly serious shortcomings SITE remains (like the Brazilian project) an extremely instructive and, in many areas, a highly successful experience in terms of development communications and education. One of its most striking features is that like the Maranão State project, it proves that success can be achieved through indigenous effort. Block, Foote and Mayo (1979) conclude their analysis of SITE optimistically:

> "In the final analysis, SITE remains an extremely instructive and pivotal experience, not only for India, but for all other nations interested in the expansion of development communications. The vision that created and guided the experiments was bold and pragmatic. The project was devoted to the installation and maintenance of a sophisticated rural communications system and, thus, programme planning and utilisation were forced to play a somewhat secondary role to that goal.
>
> SITE has shown that large-scale rural applications of satellite technology are possible. It has demonstrated management strategies and technical considerations for

such efforts. It has illuminated a host of issues on programming for a heterogenous rural audience - issues of scheduling, audience segmentation, localisation, integration with local activities, the tension between attracting an audience and providing serious information and the targeting of objectives.

SITE leaves open the issue of the overall, long-term utility of community television broadcasting as a development tool. It again underlines the fact that utility is determined by the precise uses to which the medium is put. Other nations can now plan with somewhat greater optimism and, at the same time with much greater realism."[114]

9.7 Children's Television Workshop[115]

"No one can deny that *Sesame Street* has been a great experiment. In the late 1960s, when the activities of Children's Television Workshop were launched, educational television was held in low esteem and commercial entertainment for children had dipped to its lowest ebb. Within a single year, *Sesame Street* showed itself to be a promising, even dazzling star on this gloomy horizon. Children liked the program, they watched it, and they seemed to learn from it."[116]

The United States based *Children's Television Workshop* (CTW)is known worldwide for its famous and controversial series *Sesame Street*.

In terms of both broadcasting in general and educational television in particular CTW is an unusual institution which, while receiving no large government subsidies or associating itself financially with any major broadcasting system, has established itself as a credible, independent authority on ETV.

9.7.1 Context

CTW, which came into being in 1968, was faced with the challenges derived from the exceptionally well developed and sophisticated education system in the United States as well as an educational broadcasting system which suffered from lack of funds and systematic coordination. No large national audience for ETV existed since broadcasting in the United States was "fragmented" according to immediate communities and home states. CTW set out to secure a so-called "national audience" in order to make its educational endeavours viable. However, at this stage in the history of North American ETV:

> "...funds were lacking for educational television production, partly because mass audiences could not be guaranteed. Neither broadcasters nor educators were successful in searching for ways of using the power of educational broadcasting on a national basis. CTW, from the start, proposed a departure from methods used in educational broadcasting generally in the United States and indeed in other countries. CTW planned to employ the best techniques of commercial television, and sought at first an audience not yet in school at all, pre-school children."[117]

In order to establish its legitimacy and credibility the founders of CTW established the organisation under the "administrative umbrella" of the already-established National Educational Television (NET) network in New York. This link was slowly dispensed with as the CTW became more attractive to financial backers. CTW has been an autonomous, non-profit making, independent company without shareholders, since 1969. It is, moreover, independent of government influence and is not affiliated with any particular broadcasting network. The figure below summarizes CTW's organizational structure since 1969.

Fig. 9 The Organizational Structure of Children's Television Workshop.[118]

Board of Trustees

President

Executive Vice-President

Heads of Divisions

- Planning and Development (including Finance and Admin)
- Research
- International
- Production
- Community Education Services
- Public Affairs
- General Counsel

Advisory Committees

- for particular series
- for research

CTW Communications, Inc.

A for-profit subsidiary producing films, TV programmes, records, Products amusement parks, etc

Examining this diagram it must be noted that CTW Communications Inc. is a commercial marketing organisation set up as a profit-making subsidiary which was established when CTW advanced to the stage of being compelled to find continuing sources of income other than its various grants. This subsidiary has a wide range of functions ranging from direct marketing through copyright to the production of films, books, games, toys and amusement parks based on familiar CTW images and characters.

9.7.2 Goals and Objectives

> "CTW produces, but does not itself broadcast, television series intended to explore and extend the medium's educational and information providing capabilities, not merely for the benefit of children but also for adults. This broadly stated objective underlies all CTW's work although it has been interpreted in varying ways during CTW's short history. Inevitably, policy has been influenced by the Workshop's need to maintain its revenues from a changing range of sources."[119]

It is within this broad and innovative objective that CTW is realistic about its goal. It achieves this objective, practically by focussing on "specific" skills and attitudes which a potential audience does not possess but has the ability to acquire. It expects to have to gain the audiences attention, and hold it, not only during each programme but a[illegible] a series."[120] A further aim of the Workshop is to make [illegible] instructional programmes as entertaining[121]

as possible while expecting the effects of each programme to be measurable. The series are usually flexible enough for publications or licenced products to be linked to them in order to provide additional revenue.[122]

CTW's method of meeting its goals and objectives is one of its most outstanding features and could be applied to virtually any ETV project. For each new series:

> "CTW requires its staff to identify clearly the audience to be addressed and is equally insistent that its staff specify educational objectives that are pertinent to the needs and interests of the target audience, once identified. Morever, these objectives must be fully understood and agreed by all members of the CTW production team. Educational objectives for CTW series are based upon curricular and pedagogical goals derived from empirical study, some of it by the Research Division. At the same time, production staff have to bear in mind the characteristics of the main medium, television, and where appropriate, those of other media such as print."

Within the highly structured framework CTW allows for modifications to be made and it also encourages discussion between staff in different parts of the organization. In addition this, audience reaction is closely monitored. Education is not treated as a part of the whole but as an integrated process with the potential to influence programme production at any stage. As Hawkridge and

Robinson put it: "Education is taken seriously as a rational way of reviewing objectives, content and techniques."[123]

9.7.3 Production

The content for all CTW educational series is selected and prepared by full-time CTW staff on the basis of the advice from professional consultants from universities and other institutions. What is important is that each new series is researched from scratch.

Another important (and controversial) feature of production is CTW's commercial/advertising style which has been identified as the one most likely to acquire and hold its audiences attention. Accordingly most of its programmes use the "fast pace, repititious content and dynamic visual and sound techniques of American commercial television."[124] The magazine format, characteristic of the *Sesame Street* series is another interesting and relevant aspect of production. The use of this format is based on the principle of making each programme in the series as an entity in itself. Although this approach has been criticised for its failure to build up concepts over several programmes in a series, it has been commended for its flexibility which allows for variety and repetition, and for its ability to "hold" an audience who does not "lose the thread"by missing one or two programmes. Also significant is the long term application of CTW programmes:

> "since CTW's programmes last either a half or full hour, but are actually produced as segments lasting up to three minutes, some of these segments can be catalogued, stored

and reassembled into new programmes. Revision is also easier when evaluation data indicate that a segment needs to be changed."[125]

Research also constitutes an indispensable part of the production process. The Research Division's main task in this area is to identify the relevant characteristics of the target audience and to suggest a logical programme and series structure accordingly. Researchers and producers are expected to work in close collaboration to create a balance of views and interpretations. The task of identifying and drawing up a list of educational objectives for each programme is given to a curriculum co-ordinator who is also expected to suggest the amount of time to be devoted to each objective. A writer then outlines and writes the script complying with financial constraints, but with a wide discretion in choosing techniques. The final steps occur as follows:

"All scripts for a given week are then discussed at a production meeting of staff from CTW and those from external agencies who will assist production (graphics, music, costumes and so on). During the following two or three weeks the programme segments are made in studios and other locations outside CTW. At a second production meeting the segments are assembled into a week's shows, five of one hour each for *Sesame Street*. Because CTW does not maintain its own production facility, it has to rely on external contractors; cooperation between contractors and CTW staff is essential. Segments are sometimes made that are never used, however, because they are unsuitable or of

poor quality. Such experimenting is in tune with the applied research character of the Workshop."[126]

9.7.4 Promotion and Distribution

CTW's style of promotion and distribution is indicative of its attitude towards its place within the American television tradition as a whole. Rather than divorcing itself from so-called "commercial" entertainment type programming, its official policy is to compete with other production houses within the commercial environment. In doing so, CTW makes use of a comprehensive, professionally designed public relations and marketing campaign.

9.7.5 Utilization

In spite of its controversial history "CTW's success in reaching a national audience has been confirmed many times."[127] For example

> "Mayo and Nelson quote surveys conducted by an independent organisation in 1970-2 that found that 90 percent of pre-school underprivileged children in New York and Chicago were watching *Sesame Street* regularly."[128]

This statistic, together with many others confirms the success of one of the Workshop's major objectives: to reach out to all children (especially the disadvantaged), and adults, in many ways.

CTW series are also used in other countries besides the United States and broadcasting systems in over fifty countries now use *Sesame Street* and about twenty five broadcast *The Electric Company*[129]. Accordingly, the previously-mentioned segments of CTW's programmes are either assembled into new half-hour shows to be distributed

in Europe and Canada, or they are used in foreign language "co-productions" for such countries as Mexico, Brazil, West Germany, the Netherlands, France, Spain and certain Arab countries.

9.7.6 Evaluation of Effects

The effects of CTW's programmes have been exhaustively evaluated and criticised by the Workshop itself, an independent group (the Educational Testing Service) under contract to CTW, and by various independent academics, Cook and his associates (1975) being its most ardent critics. Many of these studies confirm the success of CTW's programmes in terms of the Workshop's stated objectives and according to learning gains achieved. However, *Sesame Street* in particular, has been the subject of much adverse criticism, the major proponents of which are mentioned by Hawkridge and Robinson (1982):

> "The studies of *Sesame Street* (Ball and Bogatz, 1970, and Bogatz and Ball, 1971) were challenged by Cook and his associates (1975), who asserted that the series did not close the gap between the achievement of middleclass and lower-class children and that there was some doubt whether they were causing as large or as generalised learning gains (in 1970 and 1971) as Ball and Bogatz claimed. Ball and Bogatz (1975) criticised Cook's analysis on many grounds, however, and Cook's conclusions found no support among the Workshop's own researchers, not least because CTW had never claimed to be able to close the achievement gap. Liebert (1976) reviewed Cook's work

> independently. Cook and Conner (1976) and Goldsen and Bibliowicz (1976) criticised the use of *Sesame Street* in other countries; they said it was a form of cultural imperialism. Palmer (1978) reviewed the processes through which the workshop agrees foreign adaptations, and largely refuted such criticism."[130]

Whatever the true success rate of CTW is, there is absolutely no doubt tht it stands alone as an innovative project whose methods are potentially adaptable most ETV systems and particularly in South Africa for disadvantaged audiences.

CHAPTER 9 - REFERENCES AND NOTES

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80. HAWKRIDGE and ROBINSON (1982), p.279.

81. IBID.

82. NOTE: Education in these schools is free.

83. HAWKRIDGE and ROBINSON (1982), p.280.

84. NOTE: Summarized from Hawkridge and Robinson (1982) analysis of Oliviera (1979), pp.274-84.

85. IBID., p.277.

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101. BLOCK, FOOTE and MAYO (1979), p.118.

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111. BLOCK, FOOTE and MAYO (1979), p.120.

112. RAGHAVAN, G.N.S. (1980), pp.94-5.

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116 LIEBERT, R M. "Evaluating the Evaluators" in *Journal of Communication*, Spring 1976, p.165.

117. HAWKRIDGE and ROBINSON (1982), p.234.

118. Source: MAYO, J. and NELSON, R.A., "Managing Broadcast Education: Lessons from the Children's Televison Workshop" in MELMED (1979)

119. HAWKRIDGE and ROBINSON (1982, p.236.

120. IBID.

121. NOTE: This has often lead CTW's most vehement critics to condemn the programme for being frivolous and commercial.

122. HAWKRIDGE and ROBINSON (1982), p.236.

123. IBID., p.237.

124. IBID.

125. IBID.

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127. IBID., p.239.

128 IBID.

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130. HAWKRIDGE and ROBINSON (1982), p.241.

CHAPTER 10

The Relevance of Past Experience to the Potential of ETV in the South African Context

This chapter is not an attempt to evaluate the entire history of educational television since such an undertaking would involve an enormous diversity of case studies which would render it difficult to find common features to include in one category. Rather, it is an analysis of the experiences of the previously described representative case studies and their relevance to the potential of ETV in South Africa. It is mainly a discussion of the common difficulties, shortcomings and prospects that have come to be associated with the use of television for development education - that is - the problems that can now be anticipated before its implementation. The necessity for such an examination rests on the fact that an assessment of negative and positive features of ETV in the development context can help to establish a balanced view and interpretation of what is occurring in the field, and of the limits that should be associated with expectations.[1]

10.1 The Problems of ETV in Development Education and Barriers to learning from ETV

The general problems and potential of ETV in development have been summarised by Arnove:

> "Any technology that enables a country to expand and improve its schooling represents an instrument for change that can be utilized to overcome unequal opportunity, integrate previously excluded populations, contribute to the deve-

lopment of individuals and their social groupings, and help achieve widespread consensus and solidarity in a heterogeneous society. At the same time, the instrument can be utilized to favour already advantaged groups, establish barriers to massive incoporation of marginal populations, and rob people of their individual and collective identities.....Unless a country deliberately and systematically pursues a well-defined policy to achieve equality of both educational opportunity and educational outcomes (in terms of status, power and wealth), the probability is strong that past inequalities and injustices will continue. On the whole, that is what appears to be happening."[2]

Arnove's summary is a concise overview of the problems and potentials of development ETV, and serves as a point of departure for a comprehensive assessment of each area individually and its relevance in the South African context.

Contemporary writers agree that the early hopes for ETV have been only partially fulfilled. In general, a positive feature of many educational technology projects - including ETV projects - is that some change has resulted in a diversity of areas including organization, financing, policy and curriculum formulation, foreign influences etc.[3] More specifically these limited overall successes and partially fulfilled hopes of the 1960's and 1970's have occurred in two major areas. First, there is no doubt that television has

brought education to more people, particularly in certain areas of the Third World. Second, direct and indirect teaching by ETV has enriched education in many countries.[4] Success itself and its criteria are, in addition, not absolute concepts since both depend to a large degree on what researchers say happened rather than what actually happened. Often, projects become famous not because they were successful, but because they were founded on noble intentions and because they were "important, relevant, large, well funded well planned, well meant, etc."[5]

Even those "partial successes" - defined according to known success criteria like student and learning gains, participative planning and increased efficiency - that do exist are invariably qualified by one of the serious flaws[6] common to the majority of Third World ETV utilizations. Yet, in spite of certain undeniably remarkable accomplishments of certain projects:

> "it remains clear that education and communication technologies never did accomplish, at any one time, the great promises and expectations of the 1960s."[7]

Hawkridge (1982) is rather tentative in his contention that, across the board, there is little concrete evidence of "substantial increases in the rate of learning by students in classrooms served by technology compared to those not so served."[8] Moreover, it is possible, as Eicher *et al* (1982) conclude, that educational technology in general has not resulted in significantly lower costs per pupil except in very exceptional circumstances.[9]

Oliveira (1983) presents a much bolder and unequivocal version of this:

> "Partial successes and differential benefits are the most typical results. In no country have general masseducational problems been solved, even though they have been controlled or tackled in new ways, as already exemplified. Farmers have not systematically or dramatically changed their life-styles or levels of income, even though in some cases local successes can be claimed. The average level of teacher-training and teacher-competence in developing countries has not changed substantially, in spite of local efforts and particular progress made in a few cases. The amount of money spent on the poor students has not reversed any known pattern of income distribution, even though in certain countries the absolute amount of money spent on marginal, rural and underpriviledged populations has increased, and the relative wealth of the poor has increased as a part of a broader change in structural patterns in the economy. The same can be said of the relevance of the curricula, the 'quality' of the education received, the level of participatory planning, the level of democratization and access to information and so on.....
>
> It is obvious that educational technology cannot be judged by the extent to which it did not fulfil vaguely stated and optimistically interpreted promises. It could best be appraised by its specific results and the prospects

> it offers of contributing to educational development and social-change. However, as optimistic as we must be about the benefits obtained so far given the huge educational and communication problems and challenges lying ahead of us - it is not easy to learn from past experience."[10]

As difficult as it might be to learn from past experience, the potential of ETV is unlikely to be realized if possible obstacles to its success are not pre-empted - thus their is a necessity to identify potential stumbling blocks.

10.2 Where do Most Failures and Problems Lie?

10.2.1 Context

The first and major failure of many ETV projects is the lack of attention given to (their) context and historical perspective - it is no wonder that many projects have failed by falling short of their original goals. As pleasing as the concept of a sophisticated, democratizing educational technology might seem, naive planners who treat context and technology lightly will almost certainly encounter major, and probably debilitating problems.

Rather than treating the introduction of ETV within its context, both education and educational technology have often been treated as independent variables not associated with the contradictions of reality. Seen as an independent means of eradicating educational problems ETV has often been treated as a saviour rather than as a perpetuator of past inequalities and injustices.

This simplistic treatment of reality and unquestioning faith in "context-proof" instructional technology for the masses, is often accompanied by the mistake of attributing poor educational standards and availability to overcrowded classrooms, poorly qualified teachers, lack of teacher incentive due to low salaries and the lack of schooling facilities in "needy" areas. Reasons for failure to educate, as well as the context within which ETV utilizations occur, are usually much more complex.

Students do not fail to learn because of the above-mentioned reasons alone. They also do not learn because school (and often ETV):

> "(are not) telling them anything relevant; because school (alone, at least) is not going to affect their lives in any meaningful way because they are hungry....; because the educational system (which is not the educational planner's or the educational technologist's fault) is structured in such a way as to perpetuate injustices, regardless of the methods used or technologies introduced. One cannot operate miracles in politics and economics solely from the educational sector, much less with educational technology weapons alone."[11]

Other contextual factors which are important to take into account, since they are likely to constitute important constraints in any major change, are: "authoritarianism, sex roles, ritual functions of the educational system, individualism or group-based orientation and the like..."[12]

Translated into television terms, this implies the following:

The inherent properties of television itself must be measured against the context in order to ascertain whether the two are compatible (and if they are not, to make the necessary, possibly drastic, adjustments). When examining the properties of television as an instructional medium Arnove (1975) notes that many of its inherent characteristics tend to reinforce hierarchically arranged learning patterns and student passivity including one-way communication, authoritive teachers as role models and self-contained instructional units with follow-up activities designed to reinforce a message.[13] These inherent characteristics often form the basis of ETV models which perpetuate the traditional myth that learning is derived from the transmission of knowledge and information in a direct line from television set to student "who forms part of an inert mass quietly imbibing the information."[14]

In this context, ETV is a convenient instrument for minimising discrepancies by transmitting the same messages, at the same time to a large audience. Television can thus be used for the advantages to be derived from being able to broadcast a uniform curriculum. Failure to specifically provide for two-way communication, active learning, student participation and non-traditional uses of television for education, is often associated with "extensive faith in centralized planning, in the role of plans in the kingdom of reason, rigid implementation and lack of due appreciation of the contradictions of reality."[15]

10.2.2 Centralization

> "Historically, educational systems have been organized in various ways, reflecting degrees of centralization. At one extreme we find a completely centralized version - where the Ministry of Education is part of the principal administrative machinery, and where local units derive their authority from the centre..."[16]

The tendency in Third World and developmental utilizations of ETV has been to adhere to the centralized system of management because it is known to be convenient in economic and administrative terms. However, these natural advantages of centralization are often simply an excuse for taking advantage of the manipulative opportunities that civilization affords.

The failure to take account of contextual factors and the inherently repressive hierarchical characteristics of ETV often leads to excessive faith in central planning and control. The result of this is often, what Arnove (1975) describes as "thought control" and/or "social control." Arnove maintains that "thought control" is the principal danger of a centrally managed and directed system - particularly if it uses television to carry the main load of instruction. In so doing it is possible to transmit a uniform message, from a central point to a large, widely dispersed audience.[17]

Moreover, centralization allows educationists, developers and politically motivated producers to manipulate the audience by deliberate elimination or omissions of reference to controversial issues and

the presentation of only those points of view which support the ideologies that they wish to transmit. In this way propaganda is easy to control, even if it is implicit rather than explicit.

Another possibly negative consequence of centralization is "social control". Arnove (1975) suggests that the trend in many Third World countries to use ETV for non-formal and adult education course, is motivated by considerations of social control.

> "Such programs are designed to meet swelling pressures for some forms of participation by marginal groups, without fundamentally changing the structure of society by re-distributing power and wealth.
>
> > "Such programs are for the most part instituted and controlled by the government without providing the opportunity for adults to articulate in a collective way demands for a basic re-ordering of priorities."[18]

The major consequences of this reliance on centralization is the creation of social tensions that are not easily resolved and, often, a restricted education system which is closed to criticism.

A classic case of the deleterious consequences of centralization is American Samoa where centralization, which came about as a result of dependence on imported American technologies, ideas, staff and education, resulted in lack of local participation and relevance, ignoring traditions and local cultural expression and bias in favour

of a foreign language. Each of these consequences will be dealt with since they are the previously mentioned problems of ETV in development.

10.2.3 Dependency

Dependence on foreign resources is both a cause and a result of the negative features of centralization. In spite of partial successes in the use of ETV the only case study examined which is completely free of some form of foreign dependence is the Maranhão State project (FMTVE) in Brazil. Pena (1983), in referring to educational technology and the fact that it may increase domination by industrialised countries, notes:

> "Technology no doubt represents some progress in relation to the immediate past, but which, in maintaining those dependency relationships unmodified, opens a new phase of underdevelopment and widens the gap between autonomous societies and dependent ones."[19]

The negative consequences of dependency are the legacy of the 1960s when educational technologies were indiscriminately transplanted from the industrialised West. These transfers, although well meaning, in many cases brought new connections between developed and developing areas, simply reinforcing old colonialist patterns of education or introducing the views and systems of donor countries. Consequently, as Weiler (1978) stated, self-reliance was more talked about than practised - this was due particularly to the traditional pattern of financial dependency and the long-lasting effects of training abroad.[20]

It must be noted that dependence as mentioned earlier does not always come about as the result of sinister motives of developers. It is, rather, often the consequence of good intentions. However, while acknowledging this, Arnove (1975)notes that new educational technologies often resulted in the foreign dependence already discussed as well as a type of "internal dependence" on the local elite. Referring specifically to television he states:

> "In the case of rural education, television theoretically presents an ideal opportunity to offer a curriculum that not only carries a common core of skills and messages and shared experiences to all children, but also the opportunity to transmit the particular skills, knowledge, and outlooks that enable rural populations to cope successfully with their own milieu and to attain a decent standard of living. Few countries, however, have systematically studied the type of curriculum that would be suited to the learning environment and development tasks of the rural area. Instead, ready-made urban programmes are adopted *en toto* and broadcast to these areas.....Universal history and geography will usually be included, but not the pressing social issues of everyday survival. The life style and values of the urban elite will be optimistically portrayed, but not the daily routine and folkways of the peasant or farmer."

This presents another perspective of dependence - one in which marginal populations depend on urban elites for their education and,

indirectly, "correct" lifestyle models. It is this version of dependence which is applicable in the South African context where broadcasters publically express abhorrence of foreign influences but nevertheless carefully control broadcasting to deprived or rural areas, excluding (at present) their access altogether. Presuming that ETV will eventually be extended to these areas, it is interesting to speculate (in the light of SABC's past history and present policies) what type of programmes will be used since programmes at present are aimed at an exclusively urban black audience and they present images of healthy, well cared for individuals and are, moreover, tightly controlled from the centre.

In this context the concept of dependence is carried even further since, where broadcasting is highly centralized and urbanized, the inherent capacity of the media to transmit what their controllers believe to be valid images of society, is exaggerated. Significant here is that "white" ETV never shows black and white children learning together and visa versa.

Arnove (1975) points out that similar distortions in content and images are possible in adult basic education. In pointing out that the lifestyles and values of the urban elite are systematically portrayed he states that:

> "In some cases the decision is deliberate, but in others educators and communicators simply are unconscious of their biases in portraying elite mores and behaviours as models to be emulated by illiterate and unschooled

adults."[21]

It is appropriate here to briefly discuss the issue of adult education[22] which has always been an important feature of development ETV. It presents a special problem since the bias toward formal schooling and child education and the traditional neglect of adult education in the areas of literacy, health, nutrition, agriculture and family planning is relevant. Where adult broadcasting does exist, Arnove notes that Western models and values transmitted, instils a desire for the unattainable - often, intelligent though uneducated adults are presented with an ideal world of plenitude where no crushing problems exist. Also, just as rural educational programmes are often repeats of urban programmes and curricula, adult educational programmes are often revisions of standard programmes for children. Arnove notes that the unschooled, illiterate adult is often seen by developers as an empty receptacle to be filled up with the requisite knowledge, and is given little credit for experience, talents or insights.

Moreover, even if the adults, however unschooled, are credited with a degree of intelligence it is legitimate to ask what explanations they would be or are offered for the causes of economic and political disadvantage and what institutionalized means would be recommended by ETV for overcoming this disadvantage. Often, Western models of educational broadcasting implicitly attribute poverty and disadvantage to a lack of formal education and the refusal to adopt foreign value systems or government ideology, rather than to defects in the social, political and economic system itself.

This analysis of centralization and dependency leads to the next major "problem" of ETV in development which is implicit in the questions: whose values are transmitted by ETV?; and who benefits from it now? The answers to these questions are discussed below.

10.2.4 Lack of Local Participation; Downplaying Tradition and Cultural Expression

The problems of dependency and centralization both lead to the tendency of educational technologists to maximise the unidirectional capacities of ETV even if the planner's intention was not originally based on the desire for audience control, Oliveira (1983) states

> "In a few countries a sponsor's desire to have a well-planned project ruled out local participation in the higher echelons of decision-making. In others the desire to modernise schools left little room for tradition and other forms of cultural expression. Technology-oriented problem definition seldom allows for a broader view of a given reality, its history and social contraints. That is why much intervention is efficient, in the short term but ineffective and unfeasible, in the long term."[23]

A good illustration of this point is the Indian SITE project. In this instance, the involvement of All-India Radio - an organization closely-associated with and based upon the BBC - "defined by this sheer fact, several patterns of defining problems and dealing with them,"[24] thereby tacitly excluding the necessity for extensive participation in organizational and curriculum planning.

Thus, Oliveira concludes:

> "The history of many interventions, and the history of decision-making itself, illustrates how difficult it is in the world of education, to select the right problems, or to select problems in independent ways: independent of vested interests, technological options, organizational bias and specialization, ready-made solutions and so on. A few topical educational problems exist and to the extent that they approach a less multi-dimensional scale of complexity they are likely to be best serv. by educational technologies."[25]

Arnove (1975) offers different reasons for the exclusion of local participation when implementing ETV, involving the issue of whose values are reflected in the ETV curriculum. He suggests that in developing areas where there exists "a potpourri of ethnic, social and linguistic groups,"[26] it would be difficult for local media agencies to decide which language or ethnic group to favour, while it would be easier for centralized, external agencies to counter-socialize local identities and direct local involvement. In his study Arnove claims that:

> "In multiethnic, multiracial societies, using ETV, I have not found a case where members of a minority or non-dominant social and cultural group have actively participated in curriculum planning and development. For the most part, members of the urban elite have joined forces with the ex-colonial or trust power to plan and develop curricula.

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> In countries like Niger and Samoa, curriculum planning has been almost exclusively in the hands of the French and the Americans. In El Salvador and the Ivory Coast, outside curriculum specialists have played a big role in working with local educators to design a curriculum that reflects cosmopolitan values more than indigenous values. It should not be surprising to find that the 'new' curricula for these countries are often mere transplants, with some trimming or pruning, of the standard curricula of the metropolitan country."[27]

From this analysis it is quite clear that the values reflected in ETV curricula are usually not those of the local population. Nor is the problem solved, according to Oliveira (1983) by

> "...Counting people's heads, running of a few questionnaires or interviewing a few community representatives (which) will never replace the genuine interest of an educator (or agent of change by definition) in the subjects (and not the objects) of a given intervention. In particular, many mass-education, technology based educational packages and interventions have minimized the function of motivation and the personal relationship with the source of knowledge. Much attention must be given, then, to a projects main *raison d'être*, if an educational project worthy of the name is to be successful. Otherwise projects can be effective, people can be indoctrinated, perhaps trained, but probably not 'educated' in any respected meaning of the word."[28]

To succeed in any meaningful way, he suggests that the projects target population should be taken more seriously - that is, they should be encouraged to actively participate rather than be dismissed as "inferiors" in need of education from "outside".

Also relevant to the issues of participation and the values transmitted by ETV is the issue of "which politically relevant dispositions are developed by the school system in general and by televised instruction in particular. As previously discussed, both conventional schooling and ETV can and do shape habits of conformity, deference and passivity in learning. When assessing the prospective problems of development ETV and its potential in South Africa, it is appropriate to anticipate the impact of ETV on social awareness and political selfconsciousness by examining (as Arnove suggests) what is said (and not said), how it is said and under what conditions. For example (and of particular relevance to the South African context):

> "...are critical social issues, such as poverty and racism and interethnic hostility, treated in the curriculum in an open and honest manner? Are these issues presented with some feeling for the full depth of their intensity and complexity, or are they presented in a bland unrealistic way? To distort issues and problems beyond recognition, or to deny the full gravity of social issues, can only diminish the credibility of the curriculum for many students. They know that problems exist and are not being honestly treated."[29]

Important too is the learning atmosphere or environment itself. Here one should question whether the classroom or television teacher is allowed to permit open discussion, criticism and controversial treatment of issues, or whether students are directed towards "correct" answers.

Additional problems of development ETV revolve around the question of who benefits from ETV. When an ETV system is new, centralized and directly or indirectly influenced by outside agencies, it is often the case that past inequalities and injustices will continue rather than be eradicated. Even disadvantaged social groupings, those in the upper social stratum usually have greater access to education and possess more development potential than those who are extremely deprived. Moreover, this group is more likely to be favoured by developers and/or governments if they accept the "official" brand of development education. The problem created here is one stemming from the fact that programme content representing the norms and values of the dominant group (as is the case in South Africa at present) will be directed at the more advantaged sector and will be inappropriate to the disadvantaged sector. Arnove (1975) found that on the whole, ETV in developing countries follows this pattern and has been aimed at the upper social stratum of disadvantaged groups rather than catering to the more overtly deprived individual in those societies.

10.2.5 Wide-ranging Socio-political Consequences of ETV

Another major problem of ETV in development occurs as a result of

the failure to anticipate the consequences of expanding and upgrading one or more levels of educational systems. On the one hand:

> "The decision to use television as a means of providing advanced levels of education to rural areas is predicated upon the assumption that welfare and social science programmes, which make life more attractive for rural populations, will help stem the flood of migrants to the large urban centres. Notwithstanding the various structural conditions that compel people to leave the countryside in search of greater opportunity in the cities, the very nature of the educational programmes themselves may induce students to seek higher levels of education in urban areas."[30]

On the other hand, using ETV to expand one level of the educational structure will place pressure on other areas of education and employment unless massive social changes occur to prevent this. These changes might include providing adequate employment opportunities for the newly qualified and providing more places for students in higher levels of schooling. The case of El Salvador is illustrative of the results of the failure to accommodate the consequences of educational innovation and expansion of one level of the educational system. The only solution, suggested by Arnove, is that:

> "If televised educational programs are intended to make a substantial contribution to development processes, they must be accompanied by the requisite resources and means to transform promises into reality. Otherwise the education

programs are likely to be more instrumental in enforcing social control than in facilitating social change. Many adults who join these programs in the hope of improvement soon become aware of the discrepancy between message and reality. That attention rates are high in these programs and the plight of the majority remains more or less unchanged, should not come as a surprise."[31]

10.2.6 Treating Technology Lightly

A mistake (which encompasses certain aspects of all the previously described problems) in many ETV interventions has been to treat the concept of technology lightly. Oliveira (1983) states:

"Technologies make revolutions. Engineering and managerial technologies, as well as information systems technologies, are deeply associated with revolutions in the structure of economics and social systems. Technology is a serious thing, a very important part of modern life in many respects, and an extremely powerful tool. Decision-makers, educational planners, and educational technologists might well pay tribute to the industrial origins of the term, and make efforts to understand the hard thinking behind the concept. Having done so, they will certainly be in a much better position than former colleagues to appreciate whether a new idea, solution or tool is really a technology, whether or not it fits a given context or objective, and what is the price to be paid, in case it gets adopted."[32]

When implementing an ETV project, it is vital to consider the consequences of technology transfer in relation to the role of the people involved - both senders and receivers. This is normally not done with the consequence that an asymmetrical relationship develops between, what Oliveira (1983) calls the 'owners' and the 'recipients' of the technology. This leads to the previously described pattern of dependence involving imported problems, views, solutions and programmes. To prevent this occurring Oliveira (1983) suggests that the only successful way to transfer technology is "through peoples' minds."[33] In practical terms this means buying equipment and importing plans, solutions and programme formats only after "a solid investment in local brain-power."[34] The reason for this is that

> "Local brain-power in principle, is more able to understand local contexts, constraints and limits to change. Local brains, duly educated anthropologically to understand their own and other cultures (and viewpoints) are certainly the best vehicles to absorb innovations in an institution or a country. It may not be as prestigious or as glamorous as having some foreigners around, but it is likely to be more effective in the long run."[35]

This is vital in terms of the potential of ETV in South Africa. The case studies show that to be successful, ETV must "come from" the people themselves and must not be entirely imposed on its audience. It is recommended that the Maranhão State project and its methods are carefully studied for its potential usefulness in the South African context.

10.2.7 Failure to consider the Importance of Organization, Power and Leadership

An important, but neglected aspect of development ETV (which can be attributed to excessive faith in foreign models and centralization) is the role of the broadcasting organization itself as a key factor in project success. Many failures and problems of ETV projects can be attributed to the adverse effect of organizational structure and the related issues of power, control, leadership and funding. Many of the problems relating to organization occur because, as happens with contexts, it cannot be controlled and must therefore either be accepted as it stands or rejected and restructured (requiring massive, overall socio-political change).

The correct organizational arrangement for each context is vital since, as indicated in some case studies, an extremely rigid, centralized management and organization "can hinder the way the real world will be perceived at headquarters."[36]. The overriding need of an ETV organization to succeed can establish and perpetuate inadequately researched organization structure and, in terms of evaluation, lead to false or "modified" results. Oliveira (1983) sums this up by stating:

> "A competent operation - either in an extremely centralized project or one in which power is concentrated at the periphery - requires a very careful organizational design, in which the key aspects related to a projects success can quickly, easily and honestly be reported to the person in charge. This is one of the reasons why many official

> reports of projects of educational technology have not much to do with their reality, as seen from the outside."[37]

It is obvious that leadership and power are equally important issues. Just as the failure or partial successes of many projects are directly attributable to centralized, rigid organization, so too are they directly related to autocratic leadership.

10.2.8 Failure to Examine and Reassess Utilization.[38]

> "We do not know nearly enough about utilization, the term commonly used for what happens on the ground, particularly in schools."[39]

Of all the so-called "operational" areas of ETV, utilization is the area that is most dependent on the local context and conditions including geographic conditions of distance and population density, technological features such as transport and available power supply,[40] and socio-political/educational features such as levels of education and degree of educational opportunity. Inquiry into utilization and the expectations surrounding it are usually confined to privileged areas and populations (particularly urban areas) which are naturally favoured in terms of wealth, education and media access. A high level of utilization is expected in these areas whose residents have an unfair advantage over rural/deprived individuals, since similar utilization in these locations is not possible without a much greater effort. The major reasons for this according to Hawkridge and Robinson (1982) are that these poorer areas are characterised by poor or non-existent power supply, poor reception and

unsophisticated receiving equipment and a shortage of maintenance services for such equipment. Further, "the number wishing to make use of the materials, whether teachers in schools or colleges or families at home, may make the provision in these scattered communities appear to be of doubtful cost/benefit, compared with other local resources."[41]

The irony of this situation is that it is these generally deprived areas that would derive the greatest benefit from the educational opportunities that ETV can provide rather than the areas presently benefitting from this educational resource. It is logical that ETV has the greatest potential where there are few teachers, fewer educational opportunities and resources and a lower level of literacy, health care, educational practice and an underdeveloped economy. In practice the large sums of money devoted to ETV projects are spent on already benefitting social groupings as is the case in South Africa. The historically entrenched pattern and sequence of TV utilization is: the introduction of entertainment television in an urban area, followed (usually much later) by the introduction of urban/centralized ETV (which usually suffers from low budgets and minimal air time) and then, <u>perhaps</u>, the introduction of ETV for rural/deprived populations (this, however, often only occurs in Third World countries and is usually externally funded.) The lack of consideration of utilization is due to a variety of reasons: historically its importance appears to be minimal; utilization in urban, electrified areas is easier, often utilization in rural areas is deliberately avoided because of the implications of upgrading education like increased rural-urban migration and socio-political demands of the newly educated.

In countries where the potential of ETV for upgrading the education of the rural/deprived population has been recognised, it has not been acknowledged that utilization requires special efforts and resources if these unique needs are to be met successfully. As Hawkridge and Robinson state "It has been the tragedy of too many systems that this need for special resources was recognized both too little and too late."[42]

Apart from these problems associated with ETV utilization in general, there are two quite distinct and more specific problems which have particular relevance in the South African context. These exist "on the one hand in achieving the use of programmes intended for classroom and group use with teachers and group leaders, and on the other hand in promoting the use of programmes addressed to individuals, generally in their own homes."[43]

The first problem calls for very close cooperation between the broadcasting/producing organization and the teachers who will use the programmes. This relationship is relatively easy to achieve in a number of ways: establishing a highly centralized broadcasting system with strong links with the official educational system; insisting on close adherence to directives emanating from an authoritative, government-linked body; centralized training programmes; employing former teachers in the broadcasting organization itself; informal or formal meetings between broadcasting staff and teachers. However, major problems are associated with this approach:

"The central directive is likely to achieve more com-

prehensive coverage; but it may suffer from being too much associated with central authority and with the values of an urban, middle-class culture."[44]

This reinforces the dangers of centralized organization.

Programmes addressed to home-based audiences are characterised by a different set of problems associated with the types of promotions required for their use. The promotions call for contact between the broadcasters of ETV and a vast number of social community agencies - some related to education others not. Not only is this costly but it is possibly contentious considering the frequent political rivalry between the agencies that are government related and those that are not.

The case studies show that approaches to utilization (whether conscious or not) differ vastly. They do however have one similarity and that is the goal of upgrading learning and teaching levels particularly in socially disadvantaged areas. The Ivory Coast project, for example, was aimed at raising the standard of teaching through the programmes themselves, especially when supported by a regular programme for teachers. However, Hawkridge and Robinson note that the project had little success in training teachers to use the programmes

Using previously mentioned Belgian evaluation of the project as authority, they note its criticism of the teachers who, it maintains, spent too much time talking after the ETV broadcast, for

not relating theory/programme content to practice, for asking stereotyped questions, for concentrating on the more advanced pupils and for not making allowances for differences in academic ability. These might have been avoided with a comprehensive examination of utilization, including more effective training.

Hawkridge and Robinson (1982) also mention the Brazilian case study:

> "FMTVE in Maranhão is unique among the case study systems in continuing to keep on its payroll the teachers in the classrooms for which the programmes are mainly designed. In this case they are called classroom monitors and.....they are generally less qualified than the teachers in most state primary schools. They are provided with a monitor's guide for each programme, and each programme ends with a question for discussion or a task to perform. So the monitors are supported by the programme material. But there is little evidence that they have been given any systematic training."[45]

In terms of utilization for home-based audiences, CTW is one of the few successful organizations and it should be taken into account for its possible application in the South African context. CTW is extensively involved in making contact with various relevant groups such as social and community groups, parents and teachers and it advocates similar contact between the same groups and the organizations that broadcast its programmes. It has a professional ongoing marketing and publicity campaign which stresses the usefulness

of knowledge and avoiding any implication that learning is dull.

The final problem associated with utilization relates to the consequences of systematically not reviewing it seriously as having a direct relationship to the ultimate success of ETV and also the consequences of not examining changes in utilization. Since ETV is a technology-based educational tool, its use/utilization should be closely related to technological developments. For example, it is significant that today television is being used more and more in combination with other devices such as computers, video-recorders, radio and print. The potential of ETV must be considered in the light of future, possibly massive, technological developments and not in isolation. Success is more likely if this is done. In Japan, for example, the users of secondary school ETV have successfully changed their method of using broadcasts. Lyle (1981) quotes the data:

> "All classrooms in three-fourths of the primary schools now contain a television set. Since 1975 the use of television....has reached saturation....As the use of television has climbed, the use of radio (almost universally available) has dropped from above 50 percent to around 25 percent (i.e. 25 per cent of schools make some use). A different pattern has developed in the secondary schools....Television's use has increased, but by 1971 it was still only at the 50 percent level. And the displacement of radio was much less marked....having dropped from about 50 percent to about 40 percent.

> By the mid-1970s almost nine out of ten Japanese senior high schools had been supplied with video cassette recorders (and)...the use of television has paralleled the increase in the availability of video cassette recorders.....
>
> Where television is used in senior high schools, it almost exclusively - 89 percent - involves the use of cassettes. The same is true for radio programmes: 90 percent of their use involves tape recordings. Even in the junior high, where the proportion of schools with video cassette recorders is much lower, the trend is quite similar. But although four out of ten primary schools have video cassette recorders, the use of television is almost exclusively off-air."[46]

In summing this up, Hawkridge (1982) points out that:

> 'Change is the constant reading on the barometer of educational technology. Broadcasting technology will not be exempt from change, nor will education. But if change is inevitable, our acceptance of particular changes is not. Are we aware of what we should be challenging?"[47]

CHAPTER 10 - REFERENCES AND NOTES

1. NOTE: This statement is based on the opinion of OLIVIERA (1983), p.337.

2 ARNOVE (1975), p.145

3. cf OLIVIERA (1983), p.337.

4. Examples of evaluations and successes can be found in; LERNER and SCHRAMM (1976); ARNOVE (1976); YOUNG *et al.* (1980); HAWKRIDGE and ROBINSON (1981); HAWKRIDGE (1982); PERRATON (1982); JAMISON and McANANY (1980), OLIVIERA (1983), BLUME and SCHNELLER (eds) (1984)

5. OLIVIERA (1983), p.339.

6. NOTE: For example - dependency on a foreign control or elite power for supoort - both financial and educational.

7. OLIVIERA (1983), p.339.

8. HAWKRIDGE, D. "Educational technology, present and future," in *Prospects*, vol.xii, no.3. 1982, p.326.

9. EICHER, J.C.; HAWKRIDGE, D.G.; McANANY, E.; MARIET, F.; ORIVAL, F. (1982). *The Economics of New Educational Media: Overview and Synthesis, Vol.3: Costs and Effectiveness Overview and Synthesis.* Paris, UNESCO (Educational Methods and Techniques,1).

10. OLIVIERA (1983), p.339.

11. IBID.

12. IBID.

13. ARNOVE(1975), p.150.

14. IBID.

15. OLIVIERA (1983), p.341.

16. HANCOCK, A. (1977) *Planning for educational mass media.* Longman Group Ltd., p.15.

17. ARNOVE (1975), p.150.

18. IBID., p.151.

19. PENA, L.B. "Educational Technology: Its Impact on Culture." *Educational Technology*, February 1983, pp.17-21.

20. WEILER, H.N. "Discovery and Dependence: The Uneasy Relationship between American Universities and the Third World." Keynote address: Western Regional Conference of the Cooperative and International Education Society in OLIVIERA (1983), p.337.

21. ARNOVE (1975), p.146.
22. NOTE: Based on ARNOVE (1975).
23. OLIVIERA (1983), p.342.
24. IBID.
25. IBID.
26. ARNOVE (1976), p.5.
27. ARNOVE (1975), pp.147-8.
28. OLIVIERA (1983), p.344.
29. ARNOVE (1975), pp.149-150.
30. IBID., pp.151-2
31. IBID. pp.153-4.
32. OLIVIERA (1983), p.345.
33. IBID.
34. IBID., p.344.
35. IBID., pp.344-5.
36. IBID., p.344.
37. IBID.
38. *cf.* HAWKRIDGE and ROBINSON (1982), pp.93-109.
9. HAWKRIDGE (1982, p.328.
40. IBID., p. 93.
41. IBID.
42. IBID.
43. IBID., pp.93-4.
44. IBID, p.94.
45. IBID., p.95
46. LYLE, J. (1981) *Since 1967: The Original Case Studies Revisited* in HAWKRIDGE (1982), p.238.
47. HAWKRIDGE (1982), p.328.

CHAPTER 11

Alternatives - Realizing the Potential of ETV

Having discovered the major problems likely to be experienced when considering or implementing ETV - all those features of its use which appear to militate against the realization of its potential, it is essential to suggest alternatives to past and present uses of this medium. Because of the wide-ranging influences and repercussions of its use, it is necessary to do this on two levels:

- First - general alternatives which include wide-ranging socio-political changes
- Second - specific alternatives to the present usage of ETV including organizational reorientation of broadcasting institutions, reassessment of the role of leadership in broadcasting institutions and the potential of satellite ETV in South Africa.

11.1 General Alternatives

11.1.1 Educational Technology/Communication as a System within a System

A major alternative to present media policy regarding ETV is one which regards the transfer of educational broadcast messages as inseparable from other social, political, economic and educative processes. The main credit for explaining the weaknesses of the traditional view of development communication as a one-way, isolated process is attributed to Paulo Freire and Ivan Illich. Recognising the numerous failures of development communications systems to perform

the functions of conscientization, politization, organization and technification, Freire points out that:

> "...merely transferring content from a knowledgeable and authoritative source to a passive receiver does nothing to promote the receiver's growth as a person with an autonomous and critical conscience capable of contributing to and influencing his society."[1]

In recognising the importance of educational communication as an integrated part of the socio-political process, Freire proposes the following as alternatives:

> "(i) Faith in the people's ability to learn, change, and to liberate themselves from oppressive conditions of ignorance, poverty and exploitation.
>
> (ii) Direct contact of the learners with their own reality and its problems, analysis of the constraints imposed on them by social structure and official ideology.
>
> (iii) Elimination of the differences between 'educator' and 'educatee' in so far as they are both 'learners."[2]

Having considered the relationship between broadcast education and the socio-political context as a whole the question of the relationship between broadcasting and development must be examined. Katz and Wedell consider the major problems of developing areas to be

> "..the multiplicity of ethnic, regional or language groups.. ..; the great gaps in the distribution of resources among

> classes; the ancient traditions sometimes great ones; predominantly agrarian populations...problems of illiteracy and poor education, problems of disease and high mortality."[3]

Thus, the integration of broadcast education into general development policy cannot be seen in purely instrumental terms. The practical way of achieving this, according to Katz and Wedell is stated as follows:

> "...Broadcasting needs to contribute to the formation of development policy as well as to its implication. The broadcasting organizations have to assess their own performance, the cost effectiveness of alternative development plans, and the impact of their programs on the development of particular regions in their areas of responsibility. This assessment may lead them to discourage government from adopting for reasons of prestige communications innovations characterized by unproven claims for the improvement of the system"[4]

Under idealized circumstances (where the manipulative potential of ETV is consciously avoided), an alternative relationship between broadcasting and the major problems of development can foster what is largely termed national integration and socio-economic development.

National Integration

- A measure of national integration could be achieved by mobilizing public political participation using television and radio as channels for complaints and criticism.

Socio-Economic Development

> "...Indicators of economic and political mobility such as empathy (the ability to take the role of the other), innovativeness in agriculture and in the home, or participation in political affairs can each be shown to be related to mass media exposure."[5]

11.1.2 A Renewed Attitude to Change

Having taken account of the inevitable relationship between ETV and the larger socio-political context, it is necessary for planners to examine the concept of change in theoretical and practical terms. The discussion of this concept below is based upon that of Whiting (1976).[6]

Assuming that a potential audience has been subject to unequal educational/developmental opportunity for a lengthy period, it will be used to the stagnating effect that this lack of opportunity often results in. A sudden, "genuine" improvement in this area will, very likely, be met with suspicion and scepticism. Having changed their attitudes according to (11.1.1) above, the "educators" will have to recognise the necessity for the "educatees"to modify their attitudes toward ETV in order to motivate themselves to critically accept new educational practices and the possible benefits to be derived from them. Taking the history of both South African education and broadcasting into account this will undoubtedly be an extremely difficult task for both parties. This might be further complicated by the fact that if a person's intellectual function and potential

critical capacity has remained dormant for a lengthy period or has never been activated, it might be difficult to change or acquire learning habits and accept educational opportunities which might involve changing his or her lifestyle. As the case studies have shown, ETV itself can never induce dramatic changes in attitudes, lifestyles or a person's intellectual capacity.

Thus the overriding feature in a reassessment of the concept of change is the necessity for guiding the potential audience towards such change - preparing them for it. Theoretically as Whiting (1976) states:

> "Communication can cause change if it changes people's conceptions of the nature of matter and of themselves. Change can come if the meshing of the symbols in the message and the preparedness of the audience for those symbols in that particular context are such as to rearrange the audience's conception of the world...."[7]

Whiting goes further to suggest that the primary motivation when attempting to implement change should be to assess the framework of the decision-making within which the "common man" must operate, rather than regarding the orientation of the individual's attitude as the primary element of change. If this is done, he suggests that change will be more rapid than the change that might result by attempting to alter the "common man's" character...so as to be at odds with the framework which would remain intact against him.[8] Reinforcing this, Whiting states that

> "People will change their behaviour in response to changes

> in the premises underlying their behaviour, but only of those premises change..."[9]

An additional assumption is that people have a set of latent, alternative behaviours. According to Whiting, this is an important limiting corollory to the principle of changing people by changing the context of their actions (in this case using ETV). "Alternative behaviours" he believes, can only be activated by genuinely changed conditions. If they are not, changing the structure within which they act will have little short-range effect. However, going one step further is Whiting's assurance that if the climate for action is changed sufficiently, "...people will have the security and resources required to learn new ways of doing things."[10] He clarifies this using an analogy:

> "...If it will be clearly to my advantage to learn Greek.. ..and if I have the resources available, I may be able to learn Greek. But it will take time and considerable effort. And I may need some help, regardless of how supportive the climate of action behaviour."[11]

Once the need for change has been recognised and established, the role of ETV as an educational mass medium can be most potent when its messages strike at the nucleus of the audience's conceptual framework possibly resulting in a rearrangement of the contents of this structure. To do this planners need to assess audience requirements before the planning stages of the ETV programmes themselves. The process of selecting and arranging the "correct" messages

and transmitting them to the right receivers is regarded by Whiting as analogous to using the correct key to open a lock:

> "...Which key is the correct one depends entirely upon which lock is being used. It is the nature of the fit of the lock and key that determines success. Oftentimes it is hoped that people will fit themselves for messages. Our strain after meaning gives some basis for this hope, but it makes considerably more sense for the sender to attempt to fit his messages to the understanding of the people..."[12]

This, once again reinforces the necessity for intensive evaluation of the socio-political context, audience needs and past experiences with ETV. If this occurs the Whiting analysis implies that the old syndrome of belief in slow change through repitition of messages, could be replaced by dramatic and rapid change through transmitting correct messages to correct audiences.

In utilizing ETV to implement change it must be stressed that, what Katz and Wedell (1978) refer to a "deep rooted attitudes", cannot be changed by exposure to the media alone.

> "...To be genuinely effective...the broadcast media need to be reinforced by word of mouth, preferably through trusted friends and advisors, or by campaigns of personal intervention as practised, for example, by literacy corps, health officers, agricultural extension agents and community development officers."[13]

11.1.3 Decentralization and Local Self Sufficiency

Broadcasting in South Africa is characterised by a situation "which is complicated by [illegible]cal political visions and divisions, and one man's empathy is an[illegible] dislike."[14] It is, furthermore, urbanized, centralized and White-controlled. With few areas of common ground between the local "elite" and the "mass", the situation is further complicated by serious dissension within the various "population groupings." Alternative uses of broadcasting, in particular educational broadcasting should consider the advantages of a more localised, community bias.

Ideally there should exist local broadcasting stations, run independently of rigid central government control. However, as van Zyl (1980) points out, total independence is nigh impossible since development strategies inevitably need the cooperation of several government on regional agencies such as agricultural, educational and health authorities.[15] However, by local planning it is theoretically possible to meet specific community needs and those of the many cultural and language groups. Another benefit to be derived from decentralization would be the levelling out of decision-making due to the shared responsibility inherent in local self-sufficiency.

11.1.4 Participation and the Recognition of Human Resources

Decentralization of educational broadcasting would place a greater responsibility on specific communities in terms of assessing their own unique development needs. Developers the world over agree that for development to be successful policies guiding it should be based

upon a sound knowledge of the cultural history of a community as well as the audience and its perception of its own educational and developmental needs. Therefore, the people themselves should actively participate in planning and of implementation of educational, development and broadcasting policies.

As previously mentioned, the case for participation is put forward by Diaz Bordenave (somewhat optimistically if applied to the present South African context):

> "...the conviction is growing that the people should have more access to the communication media, not as receivers only but also as sources and actors. The adoption of this new approach to communication is producing several significant innovations in rural development communication.
>
> Media are becoming more accessible to the participation of rural populations programming.
>
> Messages are originated among the rural populations and government agents, technocrats and elites - who previously always acted as sources - are learning to become receivers.
>
> The content of the messages is more relevant to rural people's problems and needs.
>
> Rural people are learning to articulate their ideas and feelings about matters important to them.

> The Government is learning to communicate less paternalisticaly and with less authoritarianism, making possible a dialogue with rural populations."[16]

A rationale put forward for the use of participation, is the ultimate reduction in cost using "human energy" in planning and implementing projects. Another is mentioned by Katz and Wedell (1978):

> "...(participation) helps to avoid the kind of disasterous errors, failures and white elephants with which the history of development is littered, usually because the supposed beneficiaries were not adequately consulted."[17]

11.1.5 Self- and Mutual-Help

Briefly stated, self-help (which, according to Katz and Wedell is the opposite of professionalism), means the development of an autonomous human being possessing most of the skills needed for his or her own self-realization. Allied to this is the concept of mutual-help and which is based upon the premise that, when pursued collectively, the learning and aquisition of development skills is speeded up. Self-help should be strengthened by the cooperation inherent in mutual help.

11.1.6 Education and its De-institutionalisation

The role of education itself must be re-assessed to avoid the trap "of searching for a purely educational answer to a problem that has social, economic and political as well as educational dimensions."[18] As a traditional "maintainer" of the status quo,

alternative functions of education in general and ETV in particular, are often ignored. This potential is summarized by Harbe (1985):

> "...education is also a 'future' activity and has purposes and outcomes. At its best it is concerned with a 'better condition of man in the future.' Knowledge is difficult to constrain and state policies do not always have the outcomes intended. Education can contribute to change, anticipate it and prepare people for it.
>
> If fundamental reform is on the national agenda, and the political will of the people is behind it, then education can be a powerful agent for change, particularly when it is integrated into a wider national development plan. This is especially so when educationists have participated in the setting up of the plan and have not just been presented with a *fait accompli*, as is most often the case. But the tensions between the conservative and creative aspects of education will always be there."[19]

Reinforcing what has been stated previously, he notes further

> "Education systems will be most effective in development when they have:
>
> - the acceptance of the user (learner, teacher, parents, community, etc)
> - the involvement and participation of the user in the decisions about education which are made and when the user is broadly

> in agreement with the view of man and society that informs the philosophy on which the education system is based.
>
> If this is not achieved there can be a crisis of legitimacy in which the authority behind the system is questioned, challenged or even rejected. Development is not possible under these circumstances."[20]

Given that formal schooling alone is not necessary to provide a minimum basic education, and that education is a pre-requisite for development, an alternative policy concerning the use of the broadcasting media's role in providing basic education is vital. As previously mentioned this dissertation advocates the use of educational television mainly for the urban and rural underprivileged, especially in the areas of pre-school, adult and teacher education recognizing the inadequacy and possible ideological bias of educational broadcasting at present and its bias toward the urban population.

In summarizing what he call the "new international perspectives" concerning education and development Hartshorne (1985) states that development has come to imply the continued enhancement of the quality of life implying concern for social, political and economic factors - not only educational factors. Thus, he says, the post- 1960s and 1970s reassessment of the role of education "has brought educational to re-think goals, structure, content and methods, and in particular to a search for alternatives and complements to formal schooling systems."[21]

Hartshorne's summary[22] appears below as it draws together many of the suggestions already mentioned by this author about education in general and ETV in particular. A reassessment of the role of education and a concern for alternatives to traditional education, should consider the following:

"- A concern that more attention should be paid to equality of provision in and equity of access to education, particularly with regard to the disparities between rich and poor, urban and rural, male and female (World Bank, 1978)

- Education is more than schooling or training. 'Every individual must be in a position to keep learning throughout his life. The idea of lifelong education is the keystone of a learning society...The important thing is not the path an individual has followed but what he has learned and acquired." (Fauve, 1972, p.181).

- From this a model has developed which is implicit in the use made of the terms - informal, formal and non-formal education....'Increasingly (the solutions to development problems are to be found in programmes and projects which fall under the last of these categories (Coombes, 1973, p 10).

- However, the formal school cannot simply be written off. There is no escape from the challenge of improving, renewing and extending the formal school system. Alongside the so-called "basic needs" approach to economic development (ILO,1976) have come the philosophy of basic

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