

A NATIONAL INFORMATION POLICY FOR SOUTH AFRICA SCOPE AND ISSUES

WHY A NATIONAL INFORMATION POLICY

If "development is the result of good decision making and effective implementation" [Boon, 1992: 230], then a sound information infrastructure is essential to development, just as reliable and timely information is the basis of good decisions.

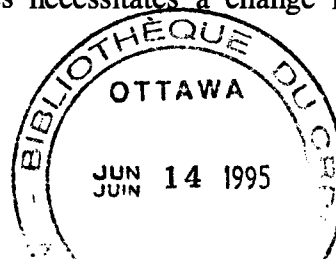
A national information policy serves to coordinate and integrate the information resources of a country. Christine Kisiedu, in her analysis of the National information and informatics policies in Africa seminar [1990: 24] states that:

the objective of national information policies, stated broadly, is to set goals, provide the inputs and support mechanism that would make possible the achievement of optimum satisfaction for the information needs of all sectors of the national economy, and to promote effective use of information services.

National information policies are used to ensure that resources are used to their maximum benefit by avoiding duplication, ensuring compatibility between sectors and legislations, distributing benefit and access, and by balancing competing interests.

Increasingly rapid changes in information technology are causing more interest in information policies in many countries as governments and interest groups strive to come to grips with the effects of these changes on their own economies and societies. Furthermore, as the information economy "goes global", countries rush to grapple with information issues at home in order to compete in the global economy. Recent news reports of initiatives of powerful U. S. companies to build a satellite communications network to link all corners of the globe, and U. S. Vice-President Al Gore's urging that all nations come together to build a "network of networks" or a "global information infrastructure" raise questions of information sovereignty and drive home the point that countries no longer can enjoy independent and autonomous national systems, but rather must raise their own infrastructures and policies to a level that can be integrated into the global network. A national information policy is a strategic response to these pressures.

In his survey of the national information policies of seventeen industrialized nations, Michael Hill found that the impetus to the development of many such policies arose from needs to remove restrictive practices, to stimulate the supply of information to an under-provided group of people and/or from the "need to establish a reasonable and workable set of balances between gaining the maximum benefit from the rush of new information and telecommunications technologies and the avoidance of consequent disadvantage to groups of individuals, organisations or even State interests." [Hill, 1989: 5] He also found that a change in institutions, political régime, or national policies necessitates a change in information policies.



In the light of technological advances, national information policies now are increasingly including a telecommunications policy. The rapid and anarchic development of the Internet alone requires that telecommunications capabilities, opportunities and concerns must be addressed within the context of the information policy. The province of Ontario's report on telecommunications calls telecommunications a "transformational technology", the "driver for economic and social transformation." [1992: 4]

OBSTACLES TO A NATIONAL INFORMATION POLICY

Despite all the important reasons supporting the creation of a national information policy, such policies are not often first on many government agendas. Policy makers usually see information as being the preserve of a narrow sector lacking in influence rather than a cross-cutting and multidisciplinary issue with far-reaching impact. Information is still seen by many, in developed as well as developing countries, to be a cost item rather than a means to economic benefit or social change.

Boon puts forward several reasons why information often does not play an important role in development. He suggests that planners, developers and governments tend to see information as a luxury rather than a basic and valuable resource. Also, policy makers measure the value of information against existing services. If information services are not yet at the level to be able to make a measurable contribution, then rather than developing the services, support is withdrawn. The high cost of equipment for information technology and the high cost of imported information are also pitted against the perceived benefit. [Boon, 1992: 234-235]

THE SOUTH AFRICAN CONTEXT

South Africa is at the juncture noted by Michael Hill of a change in institutions, political régime and policies. Victor Montviloff in his handbook on National information policies advises that a key to success in establishing a policy is to select a period of time "most favorable for presenting new policies to government for endorsement and coordination with other policies." [Montviloff, 1990: 20] By these measures then, South Africa is at an optimum time for the establishment of a national information policy.

South Africa possesses a number of advantages and disadvantages that will be important factors in this particular policy initiative. South Africa has a "first world" national infrastructure of tertiary education, telecommunications, transportation, and financial and service institutions. World-class computing capabilities exist in several areas such as banking, the military and mining.[Goodman, 1994: unpaginated] Researchers are active in their use of the Internet. There is a national library system. And the Information Services division of CSIR is world class in its databases, connectivity, document delivery, patent information, and searching capabilities.

This well-developed information infrastructure, however, reaches only 2 - 5 % of the population. Wide gaps in education, literacy, language and access limit the benefit that this infrastructure can deliver.

Problems in providing equal education opportunities are reflective of uneven distribution of all services. Goodman points out that aside from social pressures which keep black students from continuing their education, they are "handicapped by poor secondary education, in mathematics and science (among other problems, first-rate math and science teachers are almost nonexistent in the township and rural schools)..."

Shillinglaw, in discussing the distance education students of the University of South Africa, notes difficulties in getting materials to the students in a cost-efficient manner. While electronic transfer, even electronic publishing on demand, of course materials might be ideal, this raises the issues of copyright as well as gaps in computer equipment and computer literacy among the students. As Shillinglaw states "all students must have access to all learning materials contributory to their success.... The student who can download text by computer to a remote location via satellite transmission, and the student studying printed text by candlelight, should be equally able to succeed..." [Shillinglaw, 1992: 148]

In other words, a national information policy must address and accommodate a very wide range of information users and needs.

SCOPE OF A NATIONAL INFORMATION POLICY

If a tendency to limit the information issue to a narrow sector is inhibiting to the development of an useful national information policy, so too may be the overwhelming lack of limits when one considers the potential scope of an information policy. Libraries and archives, information technology, telecommunications, media, copyright legislation and conventions, standards, education, patents, and agriculture, health care, and the food industry, both the private and public sector, informal and formal sectors, all must be included.

In his paper presented at the National information and informatics policies in Africa seminar, Abate advises that an information policy must interface with education policy, science and technology policy, public and state security policy, legal codes, civil service and employment, national research policy, fiscal and economic policy, taxation policy, communications policy, and computer and informatics policy.[1990: 80-81]

For a national information policy to be successful, all interest groups must be consulted and involved.

ISSUES

Most issues which must be addressed in a national information policy are not unique to either developing countries or developed countries, to South Africa or any other country. The issues are dynamic and many have taken on new meaning and prominence in the light of advances in information technology and telecommunications. Throughout documents on information policy from various governments or interest groups, similar themes recur:

1. *Decentralization vs. centralization*

National information plans can be designed around varying degrees of decentralization or centralization. While there may be strong centralized policy, implementation may be entirely decentralized. Policy and implementation may be delegated or regionalized. Or the policy and strategy may be implemented centrally. Decentralization can be done on the basis of geographic or political jurisdictions or by sector. Whether or not there is a central authority, the complexity of the field ensures that there will be many other policy-making bodies whose policies will affect or interact with the information policy.

Many of the issues listed below will require strong central coordination to ensure appropriate balances, standards and compatibility.

2. *Role of the private vs. the public sector*

The issue of balance between public and private sector involvement raises questions of an information system being driven by market forces or a system designed around the protection and promotion of the public good.

As a key player, the needs and contribution of the private sector must be integrated into the policy. It is the private sector that will develop "value-added" services and products, and a healthy information industry is essential to becoming a competitive information-based economy.

The public sector can ensure that information is created, retained and made available even when a market does not exist for it. It can ensure a basic level of information to those who for reasons of cost, format, location, or sector cannot access the "value-added" packages offered by private industry.

The question of privatization in South Africa in transition has social and political implications unique to their own situation. Strong public sector involvement will be necessary to ensure that basic underpinnings to an information system such as electricity and telecommunications are expanded to all regions and population.

3. Access

National information policies must be based on universal and equitable access to information. As noted above, there must first be assurances that the information is collected (eg. population data, crop information, health statistics) whether or not the need is driven by a market and that the information is maintained and made available.

Access must be timely and appropriate to user capabilities. Barriers to equitable access can be a lack of awareness that the information or service exists, distance, time, format, language and cost. The policy must address these and other potential barriers, including compatibility of systems, how to reach across distances in a timely manner and how to reach across different levels of education and equipment. Information delivery by electronic file may be appropriate to one group of users while the same information may need to be incorporated into an illustrated brochure for another.

The Interim Constitution of South Africa guarantees equal use of eleven languages. This policy will constitute a major factor in the access to information issue, adding cost and complexity to the delivery of information services and having implications for participation in a competitive information-based economy.

A strong theme in current discussions on information policy is the impact of the new information technologies on access to information. While the new technologies are powerful, providing access to greater volumes of information over greater distances in a, for many, more "useable" choice of formats, they by no means have contributed to greater universal access. In fact, as the Ontario telecommunications report states, they have raised the "spectre of technological exclusion" leading to fears and realities of increased gaps between have and have-not, between know and know-not.[12]

4. Personal data / privacy

The same Ontario report discusses how information technology has affected the personal privacy issue. The new technology and software enable the "tracking, combining and analyzing of vast quantities of information from very many different sources" [85] which open up many value-added service and business possibilities. Personal privacy can thus be invaded and information made available without the individual's knowledge or consent.

A national information policy must address who collects personal data, for what purposes it can be used, how accuracy is ensured and how the individual's right to privacy is ensured.[Hill: 10]

5. *Freedom / constraints to publish, disseminate*

Hill discusses the "moral and political constraints" [Hill: 10] to be addressed by an information policy. The freedom to publish and disseminate information must be balanced with such considerations as obscenity, public decency, race relations, equity, libel and slander. On the other hand, care must be taken that suppression or censorship is not used as a control by either the state or interest groups. He also includes in this issue the monitoring or regulating of information for accuracy, such as advertising.

The freedom of the media, print, radio and television, must also be considered within the context of the national information policy.

6. *Transborder data flow / security*

Many countries have had restrictions on the flow of information outside of their countries for reasons of national security and competitiveness. Attempts to build indigenous scientific capability and independence, or to strengthen the local information industry have been accompanied by restrictions on the flow of data and equipment.

However, global information networks and the multinational needs and interests of corporations operating within the country are having the effect of throwing the doors wide open. A national policy will have to address security and indigenous development concerns while at the same time ensuring that policies, standards and regulations permit a role in the global economic and research community.

7. *Intellectual property rights*

Advances in information technology and use of electronic networks has refuelled the always nettlesome debate about copyright and intellectual property rights. Questions such as "when is a publication a publication?" have taken on new meaning. South Africa passed a Copyright Amendment Act in 1992 protecting the intellectual property rights of software. Such legislation is essential to encourage the development of an indigenous industry.

While copyright conventions and laws are necessary to protect the interests and thus encourage the production of information creators and disseminators, they must be balanced with the public interest.

8. *Economic and social issues*

The adage that "knowledge is power" supports the fact that information is a social and economic issue. As budgets tighten, public institutions discuss or implement user fees. Moves to privatize raise questions of cost of access. Will these policies create the information rich and the information poor? Will information policies serve to widen the gap between haves and have-nots? The effects of the new technologies on access have already been discussed.

Information policy can also either support or threaten the preservation of national and cultural identities. As English is the language of most of the new information technologies, what policies can be drafted to ensure the participation of other linguistic and cultural groups?

9. *Education and training*

The new information economy and technologies have great implications for the work force. Training and retraining policies have to be put into place to ensure the workers are not displaced or suddenly find themselves without the necessary skills to continue. A sufficient flow of new "information workers" must be ensured. Canada's National Summit participants agreed on a goal "to develop the full human potential of Canadians to succeed in a knowledge-based society." [1993: 53] Not only do students and workers need to be trained in the new technological skills. They need development of critical thinking, analytical and communication skills to adapt to the new information society and to cope with the inevitable information overload.

10. *Literacy*

In its Draft access principles for a Citizen's Information Bill of Rights, the Canadian Library Association identifies literacy as a "pre-condition for participation" in the economic, social, cultural, and political life of the country. People unable to read or write cannot participate or contribute to an information economy and are hampered in defending their rights and interests. Any national information policy must strive to increase the literacy rate.

11. *Deposit / archival regulations*

Deposit and archival regulations support access by ensuring that material not perceived to have market value is retained and made available. A market dynamic does not tend to focus on the retention of documents for use by others, or for the historical and cultural record, so the role of providing storage and preservation must be filled by the public sector.

As information is increasingly produced in electronic format, policies need to be developed which guarantee that these records are also stored and preserved for future use.

12. *Telecommunications policy*

In the rapidly evolving global information economy, a telecommunications policy must be an integral part of a national information policy. While deregulation is promoted as necessary to competitiveness, there must be coordination of telephone, satellite communications, cable, and electronic networks to ensure connectivity at home and globally, equitable and affordable access, and standards.

As telecommunication is called a "transformational technology", policy must ensure that the technology is used to promote the interests of the country as a whole: promoting the competitive interests of the corporate world; protecting the interests of the individual and specific groups; as well as seizing the opportunity to more effectively distribute government services.

13. *Information systems planning and coordination*

Harnessing the potential of the new information technologies can also be part of a national information policy. Planning for interconnectedness of government information systems and ensuring the training and retraining of a computer literate public service should be part of the policy and strategy.

The public sector also has a role in the drafting of standards and regulation of the quality and reliability of information systems. Tariffs and intellectual property laws will affect state-of-the-art hardware and software availability and the development of a thriving local information industry.

To be an effective agent for change, the information system must be reliable, responsive, and adaptable to different users and environments. A flexible information system is necessary to ensure access and relevance. Such provisions can best be met by a national policy.

14. Strategic planning for competitiveness

While the impact of information policy on competitiveness has been touched upon repeatedly, it is important to consider that the national information plan can make a valuable contribution to a strategic plan for the development of South Africa's competitiveness in the global economy.

METHODOLOGY AND KEYS TO SUCCESS

The two keys to success in developing a national information plan could be said to be integration and consultation: integration with other national policies and consultation with users and stakeholders.

In her paper in the proceedings of the seminar on National information and informatics policies in Africa, Kisiedu describes "critical information policy success factors" to be: [41-43]

1. a thorough appraisal of fundamental information problems - an in-depth enquiry into the goals and problems to be addressed;
2. clearly defined objectives;
3. awareness of the importance of information in socio-economic development;
4. coherence within subsectoral information policies, and between information policies and other national policies;
5. an efficient system of implementation and follow-up; and
6. continuous feedback and review.

In his handbook, Montviloff suggests three phases in making an information policy: formulation of the policy; establishing procedures for its adoption; and planning and implementation of the policy. Within the context of policy formulation, he identifies the following steps:

1. An assessment of the national information environment
This assessment should include the i) general, physical, economic, and political situation of the country; ii) the nature and capacities of available information resources and services inside and outside the country; and iii) the nature and relevancy of current information policies.

His handbook includes suggested indicators that can be used for the first two surveys. Regarding the third step, he emphasizes the importance of a survey of existing information policies and policy-making machinery, paying particular attention to any gaps and inadequacies, contradictions and inconsistencies, and overlappings in legislation that exist.

2. Preparation of preliminary documents for a national consultation

These documents should include background documents resulting from the surveys above; a document describing goals, needs, issues, and concepts related to the policy; institutional profiles; and procedural documents describing the workplan and agenda for the project, and a list of participants for a national consultation.

CONCLUSION

As South Africa stands at the threshold of a new order, with the democratic alliance committed to consultation in the policy-making process, it would appear that this is an ideal time to formulate a national information policy. South Africa, in some respects, has a First World infrastructure already in place with access to the latest information resources and technologies.

It should however be noted that national information policies and strategies are by their nature dynamic and evolutionary. In the seventeen countries survey by Hill, most showed an evolution of policies, institutions and legislation developing over many years. The process can begin now with formulation of a policy that will integrate all sectors and relevant policies and which supports the vision of the Reconstruction and Development Programme.

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