

CHAPTER 4

PRESENTATION OF RESULTS: CONTENT ANALYSIS

In the chapter on literature review, the researcher discussed literature about the Internet and development that she was able to locate in written sources. This chapter analyses primary data gathered from contributions to selected electronic discussions lists on the Internet and development. The researcher used the following three discussion lists as sources: the Global Knowledge (GK) List, the Department for International Development (DFID) List, and the Africa Technology Information and Development List (AFTI-DEV). All three discussion lists focus on the role of the Internet in the development process. Subscribers on each list contribute their views on the state of the Internet in developing countries and offer opinions and develop discussions about the wrong of the Internet in the development process.

The purpose of this chapter is to describe and analyse the themes and issues raised by subscribers to the three lists. In this chapter, the researcher first isolates issues raised in the discussions on each list, then groups them thematically and finally compares the findings extracted from the three lists. She also reports the ways in which contributors believe that the Internet could be best utilised in development. In chapter 6, the researcher discusses the policy implications of both the issues raised and suggested solutions.

The researcher also used some of these findings from this analysis to develop her case study on Internet use in Botswana.

4.1 Global Knowledge List

The Global Knowledge e-mail discussion list (GK List) still functions and focuses on ICT and development. The archive of previous messages sent to the list is located at <http://www.globalknowledge.org>. The list was launched in 1999 in preparation for the Global Knowledge Conference 1 in Toronto, Canada. The table below provides demographic information about the GK List.

Table 8 GK List

List particulars	List specifications
Sponsor of the list:	Global Knowledge Partners: (UNDP, World Bank, UNESCO and civil society organizations)
List manager/moderator:	Education Development Forum
Total number of messages posted:	496 during the period under review (January to July 2000)
Number of subscribers:	The List is still active and open to subscription. It posts an average 80 messages a month.
Archive URL:	http://www.globalknowledge.org
Life span of list:	It was launched in March 1999 and is still active.
Objectives of the list:	(a) To harness information as a tool for development (b) To focus on access to ICT, the empowerment of civil society and the promotion of good governance

The researcher's analysis of the list was limited to messages that were posted between January and July 2000. The discussion and contributions during this period centred on obstacles and barriers that prevented potential users from gaining access to the Internet. Subscribers from both developed and developing countries described factors that prevented access to the Internet and frequently cited examples from their own locations. The researcher grouped the issues that were raised under the following theme headings: infrastructure, unequal access, human resources, policy issues, content, education. Each of these themes is discussed below.

1. Infrastructure issues

Three infrastructure factors were identified as barriers to Internet access, and these are listed in Table 4.2. They are: limited bandwidth, which reduces the capacity to handle audio and graphic data; poor telecommunications infrastructures (most of which are still analogue and can only transmit voice); and unreliable electricity supply. Contributors suggested successful solutions that were devised in some developing countries to solve these problems. Such solutions included using radio and the Internet to complement each other in India and Gambia, the use of battery-powered receivers to alleviate dependence on an erratic electricity supply in Mauritius, and the use of satellite telephone communication technology to circumvent dependence on land-line telephones in Zambia and Malaysia. The implications of these suggestions and their impact on policy are discussed in chapter 6.

Table 9 Infrastructures

Current Situation	Suggested solution
Limited bandwidth to handle data	The complementary convergence of radio and Internet technologies (India and Gambia)
Poor telecommunications	The use of satellite and wireless communication (Zambia and Malaysia)
Unreliable electricity	The use of battery-operated receivers to increase access (Mauritius)

2. Unequal access

Some contributions to this List described the prevalence of various socio-economic factors that create a situation in which there is unequal access (a inequality of opportunity commonly called the “digital divide”). Factors that contribute to the digital divide are related to the deficits in education and literacy and the difficulties created by geographical remoteness.

Table 10 Unequal access

Current situation	Suggested solution
More men than women have access.	Educate and empower more women to use the Internet.
More access is available in urban than in rural areas.	Increase all kinds of telecommunication links to rural areas.
Educated people have more access than uneducated people.	Introduce universal education so as to eradicate illiteracy.
Current high levels of illiteracy among the population prevents widespread use of Internet technologies.	Ensure that relevant websites are not mediated solely through the medium of print.

Implementation of these suggestions would require policy agreement among all interested parties and sectors in the population. Policy implications are discussed in chapter 6.

3. Human resources

Human resources were identified by contributors as some of the factors that may contribute to poor Internet access. Under-remuneration of knowledge professionals was identified as one. The isolation of virtual practitioners was another. Most developing countries did not have their own virtual communities; national e-mail lists were absent in most developing countries and people only met on international or regional discussion lists. Because these factors created a sense of isolation in practitioners, they tended to limit their participation in and contributions to Internet modalities in their countries.

Table 11 Human resources

Current situation	Suggested solution
Knowledge management professionals are poorly remunerated in some countries.	Pay knowledge professionals better salaries and offer them better contracts and conditions.
Many virtual practitioners are isolated and geographically remote from other users and participants.	Create and maintained vibrant and supportive on-line communities and virtual spaces and communication forums.

The solutions that were proffered on the List did not make any suggestions as to which particular institutions, organisations and government sectors should be responsible for the implementation of such solutions. Who, for example, might take on the responsibility of creating user-friendly and vital forums for exchange of ideas and information, and to what extent would that encourage the use of the Internet?

4. Policy issues

Some subscribers identified solutions that would require policy changes if they were to be implemented. The policy issues that were identified can only be effected by international cooperation between governments. Some policy issues are regional and some are international in scope. The issues that were raised by subscribers were: free trade, the monopoly which national governments exercise over national telecommunications, the absence of government participation in the telecentre movement, and import duties on IT equipment. A call for the deregulation of the airwaves and the reduction of import duties came from many developing countries. A contribution from India noted that the absence of government controls had led to a tremendous increase in IT business and use of the Internet in India.

Table 12 Policy implications

Current situation	Suggested solution
Globalisation encouraging free competition	The breaking down of global barriers through the Internet
Government monopoly on national telecommunication	The deregulation of telecommunications so that many more role players can participate
The private ownership of telecentres. The absence of government assistance	Telecentres (Gambia)
Import duty on equipment and restricted access to telephones	An absence of government controls encourages the growth ICT (India)

Deregulation of telecommunications would enable more and more people to participate in data transfer. An example from India suggested that reduced tariffs encourage growth in the telecommunication industry.

5. Content

Discussions on content emphasized how inappropriate Internet content often is for developing countries. One contributor noted that current content is designed for “North-North trade” but does not encourage “South-South trade”.

Contributors were critical of the Internet, and particularly of the WWW, because they perceived it as a new form of imperialism that excludes many countries by using English and other colonial languages like Spanish and French. African contributors lamented the fact that African languages are not used on the Internet, and that the advertising content is designed and intended for consumers who are either resident in developed countries of the West – or for educated Africans with high incomes and internationally valid credit cards. Table 13 below candidates these concerns and suggested solutions.

Table 13 Content of the Internet

Current situation	Suggested solution
Inappropriate content for developing nations	Increase “Southern” content
African languages not used on the Internet	Review language practices on the Internet and create imaginative solutions and hyperlinks to other languages

6. Education

Although some items listed under unequal access (such as *literacy* and *access for the uneducated*) could just as well have been slotted under education, they were raised as

factors that prevent access to the Internet and have been presented together with other socio-economic factors that hinder access to the Internet. The only item listed here under *education* is distance education. Contributors cited Zimbabwe and South Africa as two countries in sub-Saharan Africa that use the Internet extensively for higher education. They called on more universities in Africa to do the same so as to increase African scholarship on the Internet.

Table 14 Education

Current situation	Possible solution
Limited use of the Internet in distance education	Developing countries are under-utilizing the Internet as a tool for distance education

4.2 Department for International Development (DFID) List

The DFID List focused its discussion on the role of the Internet in development, with particular reference to how the Internet can combine with other media to transmit development information. The table below supplies information about the list.

Table 15 Demographic information about DFID List

List particulars	List specifications
Sponsor of the list:	The British government
List managers/moderators:	Peter Ballantyne and Darren Saywell
Total number of messages posted:	(Information not available)
Number of subscribers:	254
Archive URL:	http://www.oneworld.net/consulation/dfid.index
Life span of the list:	Six weeks
Objectives of the list:	To develop guidelines on how the Internet can be used in conjunction with other technologies for development

The DFID List was open for six weeks between May and July 2000 and was designed to address four questions and elicit as much informed commentary as possible about these lists:

1. Is there any evidence that ICTs actually reduce poverty?
2. How can the Internet and increased globalisation enhance the value of traditional media for development?
3. How can the international community help to harness the power of knowledge to meet its development targets?
4. What can the UK do to help bridge the digital divide for developing countries?

A total of 254 messages were received in response to the above questions over a period of six weeks. The researcher extracted relevant responses from postings to the list and grouped them thematically. The researcher used the same thematic headings that she had used for the GK List to group issues (these headings were infrastructure, unequal access, content, education, human resources and policy issues). Another issue identified on this list was financial constraints. The researcher found that her own thematic analysis of responses provided more useful insights than an analysis in terms of the questions asked at the beginning of the DFID List.

1. Financial constraints

Contributors cited the prohibitively high cost of computer equipment as one of the deterrents to the wide use of computers, as indicated in Table 4.9. A combination of these costs and the high fees charged by telephones companies both contributed to discouraging Internet connectivity in developing countries.

Table 16 Financial constraints

Current situation	Suggested solution
Expensive computer hardware and software	Trade policies to facilitate access to cheaper equipment Encouraging the expansion of local electronics industry
The high cost of maintaining Internet connection	Finding ways of reducing the cost of the technology or of sharing the costs

The suggestion that electronics industries be established in developing countries complements the suggestion that trade policies be devised that allowed access to cheaper equipment. India and Taiwan were cited as examples of countries where the expansion of the electronics manufacturing sectors not only created more jobs but also led to the export of computer equipment from those countries. Local production also eliminates import duties and taxes.

2. Education

A lack of appropriate IT education was perceived to be a reason why the value of computers and their potential as a unique means of communication was not appreciated. It was noted that the school curriculum in many developing countries does

not include computer education. Table 17 raises these concerns and offers possible solutions.

Table 17 Education

Current situation	Suggested solution
Early access to ICT in education	Adopting education policies that permit ICT education

3. Content

Content here refers to content on the WWW and the discussion on lists. Table 18 lists several issues that were raised in relation to content. These include limited local capacity to put local content on the Internet, the need to create local knowledge databases, and the digitization of local content. Another point that was raised concerned the need to present information from the Internet in a format that would make it accessible to those who live in remote areas so that they too might also obtain indirect access to the content of the Internet.

Table 18 Content of the Internet

Current situation	Suggested solution
Electronic publishing of local content	Develop appropriate training, copyright and education policies which increase capacity to put local content on the Internet
Repackaging	Repackage Internet-based information into formats usable by remote populations
Creation of a local knowledge base	Develop pages with local content

Issues of content seem to be the easiest to solve because Internet enthusiasts can solve them. They need not depend on changes to government policy.

4. Unequal access

Contributors to the GK List noted that rural populations had less access than urban populations. Contributors also noted varied access between educated and uneducated populations.

Table 19 Unequal access

Current situation	Suggested solution
Stratified access: educated and literate people have more access	Reduction of illiteracy through universal education
Unequal distribution between rural and urban	Enhance the capacity of rural areas to access information

Because the Internet is presented in a text-based format, it is inevitable that those who are illiterate will be excluded. Illiteracy has taken many developing countries years to eradicate. Should Internet access be dependent on the eradication of illiteracy or should the Internet be changed to serve the illiterate through adopting an audio format?

5. Policy issues

Table 20 notes that elimination of the control and regulation of telecommunication systems is necessary before a free flow of information and an expanded use of the Internet is possible. Government control not only reduces the transmission of data but also diminishes extent to which community radio services may complement the

Internet. One needs to look further than the restrictions which governance placed on telecommunication and ask *why they practise this kind of restriction*. This question may be answered in terms of state security, good governance, transparency and democracy, and how these rank in the priorities of governments.

Table 20 Policy issues

Current situation	Suggested solution
State control of telecommunications determines what may be done on the Internet	Deregulate telecommunications

While contributors to this list raised similar issues to the ones raised by the GK List, they also raised the additional points about financial constraints related to telecommunication and computers in developing countries. However, the details in terms of which issues were expressed under each category varied between the two lists.

4.3 Africa Technology Information and Development (AFTI-DEV) List

AFTI-DEV was the newest of the discussions lists and dedicated its discussion to Africa and ICTs, with emphasis on the Internet. Although the list was dedicated to Africa, not all participants were from Africa. It included participants from the USA, Switzerland, Canada, the UK and Belgium. In addition to these, twenty-two African countries were represented. While this list was concerned with Africa, the scope of the DFID List and the GK List included issues and problems in all developing countries.

The moderators were Ellen Kole in the Netherlands, and Ken LeHento in Benin. The list was active between September and December 2000. Although it continued to be active after the field research had been completed, it is important to note that the issues that it raised are very similar to those that were raised on the DFID List and the GK List.

The table below describes the AFTI-DEV List.

Table 21 AFTI-DEV List

List particulars	List specifications
Sponsor of the list:	MEDIActeurs (France)
List managers/moderators:	Ellen Kole and Ken LeHento
Total number of messages posted:	119
Number of subscribers:	110
Archive URL:	http://www.aftidev.net
Life span of list:	Four months (September-December 2000)
Objectives of the list:	(a) To debate the notion that ICTs will bring development to Africa (b) To examine the extent to which the Internet was contributing to development in Africa

Contributions were grouped according to the themes of education, content, policy implications, unequal access, and financial constraints.

1. Education

Education of citizens for Internet literacy was described as being both uncoordinated and expensive. Internet training was also characterised as uncoordinated and expensive. There was a perception among contributors that local populations needed to increase

their own content on the WWW – and that this would happen as a result of training. Training was perceived as being absolutely necessary before Africans could place African content on the web.

Table 22 Education

Current situation	Suggested solution
Lack of coordination of institutions that provide and finance Internet education	Education that facilitates Internet literacy to be coordinated and made affordable
Need for African developers	Developing a local capacity to develop and disseminate local content

2. Unequal access

Table 23 lists the poor as being excluded from the Internet because they cannot afford the costs of connectivity. The rural poor tend to be the least educated because they live in areas where schools are in adequate and often rudimentary. One contributor thought that the rural poor were always the last to be granted resources, and that this situation was being replicated with regard to Internet connectivity. Contributors called for more government involvement in Internet provision so that it would be cheaper and more accessible to a wider spectrum of users.

One wonders if the Internet is really a priority in the lives of the poor. If it were, what aspects of the Internet would benefit them? Where (in Maslow's hierarchy of needs) would the Internet fit?

Table 23 Unequal access

Current situation	Suggested solution
Poor without access to the Internet	Governments should provide cables as well as computers

3. Financial implications

Contributors noted that current Internet provision in Africa was driven by the private sector. It was therefore run on a commercial basis and was not affordable to the general populations. There were several calls for government participation in Internet service provision and the reduction of import duties. The reduction of costs would make equipment more affordable and encourage connection to the Internet itself. Table 24 below indicates the contributions.

Table 24 Financial implications

Current situation	Suggested solution
Internet access privately funded; no sustainable funding	Government involvement in funding and the subsidisation of ISPs
Expensive equipment	Reduction of import duties
Internet connection expensive	Need for government subsidies so that costs are reduced

4. Policy implications

More contributors raised questions about policy than questions in any other category. These contributions included the regulation of telecommunications, South-South trade, techno-driven use, and the lack of commitment on the part of African leaders. Changes in policy were perceived as being critical to creating an environment for the broad use of the Internet in many sectors. Table 25 lists the issues raised.

Table 25 Policy implications

Current situation	Suggested solution
Lack of linkages between Internet, radio, satellite, and cell phone technology	Deregulation of telecommunications industries
African leaders do not demonstrate commitment to the Internet	Establishing appropriate protocols that facilitate Internet access
Lack of coordinated South-South Internet use and initiatives	Appropriate information exchanges between developing societies
Current use is largely techno-driven – as opposed to being development need driven	Identify specific areas where the Internet could be used
Africans are not participating in large numbers on Internet regulation bodies such as ICANN	A deliberate effort to participate in the deliberations of Internet driving bodies such as ICANN

5. Content

Content issues related to languages used on the Internet and the absence of information on small business in Africa. Affordable hosting was seen as a possible solution to the absence of web sites with African content. A language policy for the Internet was also discussed.

Table 26 Content of the Internet

Current situation	Suggested solution
Limited use of African languages on the Internet and sites on African culture	Appropriate language policies
Limited local content; small business players need to put more content on the web	Developing capacity as well as pricing policies that facilitate affordable hosting, development and publishing

The AFTIDEV list was also developed to discuss issues that affect Internet use in Africa and to establish best practices that could facilitate wider participation in and the use of the Internet.

4.4 Comparison of content of lists

Despite the fact that the same theme headings were used for all three discussion lists, there was little overlap on the specific issues raised. While the contributions to the three lists concur on the seven broad categories of financial constraints, education,

infrastructure, content, policy implications, unequal access, and human resource, the details about issues raised under each of these categories are different. In the table reflects a comparison of the issues raised on each list when they are no grouped under broad category headings.

1. Financial constraints

Table 27 Financial constraints

Issues raised by lists	NAME OF LISTS		
	DFID List	AFTIDEV List	GK List
Internet access privately funded; no sustainable funding available		X	
Expensive computer equipment	X		
Expensive Internet connection	X		

Table 27 above indicates that two lists raised concerns about how financial constraints inhibit the growth of the Internet in developing countries. The DFID list reflects concerns about how expensive computer equipment and Internet connection are. Contributors to the AFTI-Dev raised concerns about the fact that Internet provision is controlled by the private sector. It was noted in the ensuing discussion that if government and NGOs were role players, the costs of Internet service provision could be reduced. They would nevertheless still have no control over telephone line charges, which would still have to be paid over and above monthly ISP subscriptions. They were no contributions on the GK List about this matter in the period under review.

2. Education

Table 28 Education

Issues raised by lists	NAME OF LISTS		
	DFID List	AFTIDEV List	GK List
Lack of coordination of institutions that provide and finance Internet education		X	
Need for role players to develop African content		X	
Early access to ICT in education	X		
Limited use of Internet in distance education			X

All three lists raised issues about different aspects of education. Contributors to the AFTI-DEV List noted that computer education in Africa was not properly coordinated and that various organizations were duplicating one another's efforts. Other contributors on the AFTI-DEV List pointed out that if more Africans were trained in how to produce HTML (which is not an exceptionally difficult procedure), they could create African language and content web sites and so contribute to African content on the web.

Contributors from the DFID List indicated that there was a need for early computer education so that people could become computer literate in school. It stands to reason that computer literate populations have greater potential to appreciate new developments on the Internet.

Contributors to the GK List indicated that the Internet was being under-utilised in distance education. They said that although all African countries had full Internet access, only Zimbabwe and South Africa were using the Internet for distance education. The use of Internet for education radically reduces the cost of education (because Internet users can access education from local or overseas sources). This flexibility and convenience enables people to study while are employed or while they remain in their own homes.

However different some of these issues may be, they are all pertinent to the theme of the Internet and development. While contributors to the DFID and AFTI-Dev Lists highlighted training and building African capacity so that users could effectively utilise all the resources offered by computer technology, contributors to the GK List focused on using the Internet to solve distance education problems. These three issues relate to different aspect of development. This give some indication of the complex nature of educational issues in development generally and their relation to the Internet in particular. Contributors were concerned not only about problems arising from not having the Internet, but about efficiently those who possess the Internet actually utilise its full potential.

3. Infrastructure

Table 29 below compares the contributions made to each list on the subject of infrastructure. The DFID List was most concerned about how infrastructure

deficiencies affect Internet connectivity, while many contributors on the GK List were also concerned about these problems. Contributors on the two lists shared concerns about the limited capacity of telephone lines, poor telecommunications, unreliable electricity, and the need for convergence of technologies in order to maximize access. Contributors to the DFID List were also interested in how wireless technology could be used to bypass unreliable and erratic telephone lines, and how battery-operated receivers could eliminate dependency on unreliable electricity supply. Contributors to the AFTI-DEV List only mentioned how poor telecommunications infrastructure affects Internet connectivity.

Table 29 Infrastructure

Issues raised by lists	NAME OF LISTS		
	DFID List	AFTIDEV List	GK List
Limited bandwidth to handle data	X		X
Poor telecommunications infrastructure	X	X	X
Unreliable electricity supply	X		X
Convergence of radio and Internet resources (India and Gambia)	X		X
Use satellite and wireless communication	X		
Use battery-operated receivers to increase access (Mauritius)	X		

4. Content

There was a shared concern among contributors to all three lists about how limited content from developing countries is on the WWW, as shown in Table 30 . Contributors also expressed concern that the languages used on the WWW exclude

large populations from developing countries. Contributors to AFTI-Dev complain about the absence of African languages on the Internet. The languages used on the web are nearly always European languages.

Table 30 Content of the Internet

Issues raised by lists	NAME OF LISTS		
	DFID List	AFTIDEV List	GK List
Limited local content on small business players		X	
Limited use of African languages on the Internet and a limited number of sites reflecting African culture		X	
Lack of electronic publishing of local content	X		
Repackaging (re-formatting)	X		
Inappropriate content for developing nations	X		X
African languages not on the Internet			X

A contributor on the DFID List suggested that because information from the Internet is either in an inappropriate language or form, it should be repackaged (re-formatted) and presented to populations from developing countries in a form that they understand (such as, for example, an audio form). The implication here is that the populations from developing countries only want to *consume* the Internet – and never upload their own information or content.

6. Policy implications

Table 31 Policy implications

Issues raised by lists	NAME OF LISTS		
	DFID List	AFTIDEV List	GK List
African leaders not demonstrating commitment to Internet problems that inhibit progress		X	
Lack of coordinated South-South Internet use and initiatives		X	
The current use is techno-driven – as opposed to development-need-driven		X	
Africans not participating in large numbers on such Internet regulation bodies as ICANN		X	
Lack of linkages between Internet, radio, satellite, and cell phone technology		X	
State-controlled telecommunications determine what may be done on the Internet	X		X
Globalisation that encourages free competition			X
No government assistance for telecentres			X
Import duty on equipment, restricted ownership			X

Contributors to the AFTI-DEV List raised five policy issues; contributors to the GK List raised four, and contributors to the DFID List raised one issue. Contributors to the DFID and GK Lists shared a concern about the government's control of telecommunications under way in which this control hinders the use of the Internet. Contributors to the GK List went on to express their concern about how globalisation and free trade were disadvantaging developing countries – which have to compete with developed countries in matters of trade, access to knowledge, and so on. Contributors

also cited the absence of government participation in the telecentres movement as being detrimental to the development of Internet use among the underprivileged. Other contributors indicated the need to reduce import duty on computer equipment.

Contributors to the AFTI-DEV List noted that current Internet activity in African countries is driven by the needs of technology and the marketplace – rather than by carefully planned and rational policies. Some contributors were of the opinion that African governments were not showing sufficient commitment to Internet use, while yet others hoped for an increase in South-South cooperation in Internet use – as opposed to the current situation which we find are largely passive Southern consumption of an Internet with mainly Northern content.

7. Unequal access

Table 32 Unequal access

Issues raised by lists	NAME OF LISTS		
	DFID List	AFTIDEV List	GK List
Poor without access to the Internet		X	
Stratified access (educated and literate people have far more access than the uneducated and the poor)	X		X
Unequal distribution between rural and urban	X		X
More men than women with access			X
Illiteracy preventing the participation of large populations			X

The GK List reflected more items about unequal access than did the other lists. Contributors to the GK List noted that there is stratified access to the internet, with urban populations having more access than rural, men having more access than women, educated populations having more access than the uneducated, and the literate having more access than the illiterate. Contributors to the DFID List concurred that an unequal access was dependent on whether people lived in rural or urban areas and whether they were educated or uneducated. The AFTI-DEV contributors added that the poor are excluded from the Internet. Such unequal access causes the “digital divide”, i.e. access to the Internet reflects class and economic inequities. It is the upper and middle classes that have most access to the Internet.

8. Human resources

Table 33 Human resources

Issues raised by lists	NAME OF LISTS		
	DFID List	AFTIDEV List	GK List
Poor remuneration for knowledge management professionals			X
Scattered and isolated virtual practitioners			X

Only some GK List contributors cited human resources issues as a specific hindrance to Internet access. They indicated that poor remuneration of knowledge professionals leads to a “brain drain” from developing countries. They also indicated that scattered

virtual practitioners hinder progress within countries. Isolation hinders the exchange of ideas about how to develop local strategies for using the Internet for development.

While subscribers to these lists are generally Internet enthusiasts, they generally see a role for the Internet in development if all the hindrances and obstacles could be removed. By the time she had completed this content analysis, the researcher remain unconvinced that one has to solve all these problems before one can participate in the Internet. Is it not perhaps possible to solve development problems without using the Internet if one has to clear all these hindrances to be able to use the Internet in the development process?

While the three discussion lists all concur that the seven broad categories identified by the researcher reflect the issues, they obviously differ in the formulation of their responses in each category. This suggests that many problems remain to be solved before the Internet can be developed and made widely available for business, education and leisure in developing countries. It is not enough to develop and put up a web site. Other vital factors such as illiteracy, training, equipment, rural-urban differences and government controls all need to be taken into account. The issue of local content also needs further examination. The case study on which the researcher reports in the next chapter examines these overlapping issues in the context of the practical application of web use in developing countries.