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Feature

Commentary
From Mindmeld to Mindset: Negotiating the Information Minefield in Developing Countries

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Editor's note: This paper has been edited from Professor Adamu's submission to the ASIST SIG/III International Paper Contest, 2001. Many of its references are to Internet sites that carry current, topical information. As a result some of the materials cited in this paper are no longer online so far as we can determine. Those links known to be broken at the time the paper was edited are marked with **. Professor Adamu has copies of these materials if anyone wishes to request them.

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More than any other sociological credo, including (one even dares to venture) religion itself, the concept of being wired worldwide has emerged as one of the most potent matrices binding the human race. It is a truly awe-inspiring development. It is also frightening. The idea of integrating human thought into one congealed mass of uniformity is expected to create a large open society. Yet little thought was given to the question of who benefits and who loses from the entire wired world strategy. The wired Internet is about communication. That is a fact. It is also about communities. It is this aspect that is often overlooked, for communities are made up of people with differing mindsets and perspectives to the issue of communication and its values.

This paper focuses on the concept of information sharing and the associative values that go with it.

The Digital Rubicon

The Internet is a culture of information sharing that values an open society and open interactivity. It evolved from the technological and scientific mindset that shaped the development of societies in Europe and North America, where the inspiration of the Internet and the wired world originated. Essentially, therefore, adopting the Internet ethos and substrata means adopting a mindset similar to that which gave rise to it.

There is no doubt that electronic networks – and particularly the new tools of e-mail and the World Wide Web – have great potential for enhancing global access to policy-making processes. However, all this and other information society visions refer to a society where information flow is desirable, workable and practicable. That is not always the case. As valuable as such commonly cited applications are, they benefit only those who have moved beyond obtaining the basic necessities of life. There are hundreds of millions of poor people in Africa who don't have much of anything to sell – whether an ideology or a commodity – let alone a need to use the Internet to sell it. So the larger question remains: Can technology, driven by market forces, help these large numbers living in dire poverty? The simple answer is that businesses are not in the business of reducing poverty; their main purpose is to maximize return to shareholders. Technology companies, like all businesses, will ultimately go after paying customers who can make them profitable. Those who sponsor information communication and technology (ICT) initiatives

from non-business perspectives, such as international non-governmental organizations (NGOs) have another commodity to sell – ideology, which will eventually soften adopting units to these same marketers.

Charles J. Kenny of the World Bank provides an example of the enthusiasm of communication technology taken to a stratospheric level of optimism:

> *...the Internet could have a major role to play in reducing poverty – especially in rural areas. It is clear that a major cause of low rural incomes can be blamed on 'information poverty' – the lack of access to information and knowledge that could improve earnings potential. . . . Recent estimates suggest that investments in rural telephony can have annual economic returns of over 40 percent.... (http://www.itu.int/africaInternet2000/Documents/doc7_e.htm)*

This rosy picture could have focused attention on the relationship between ICT and development, using a developed country, as did Kumar Venkat, who argued that,

> *...After a decade of unprecedented economic growth, fueled in large part by new technologies, the national poverty rate in (United States) is still around 12 percent – essentially where it was before the computer revolution in the mid-1970s. . . If it is possible for technology to act as a major catalyst in eradicating poverty, as some claim, then it is fair to ask why this hasn't happened in the United States under the best of economic conditions.* (**http://www.siliconvalley.com/docs/opinion/svguest/soap040801.htm)

Further, the de facto access to effective use of these technologies is biased in all the predictable directions: by race, gender, economic status and location. Africa, to date the least connected continent, is particularly disadvantaged. In a world obsessed with information and communications technology ideals, the gap between Africa and the rest of the world with regard to Internet connectivity, as with most other indices of development, remains huge. The African slice of the Internet pie is depicted in Figure 1.

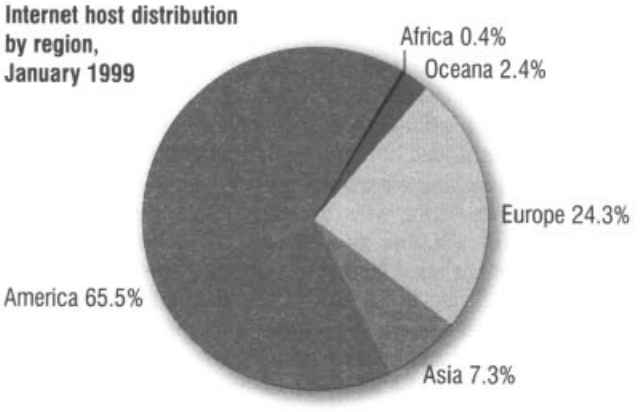


Figure 1. Internet host distribution by region, January 1999 (ITU. "Challenges to the Network 1999: Internet for Development," available at **http://www.itu.int/ti /publications/INET_99/ index.htm. Internet Software Consortium, at http://www.isc.org/)

In many African countries, state monopolies in telecommunications with vested interests in obsolete technologies and a high cost structure are clearly one of the obstacles to more rapid development of ICT networks. The precise role of the private sector, the state and the voluntary non-governmental sector in expanding access are still the subjects of debate. What is certain is that change is coming quickly and that its pace will depend on how quickly the cost to the user can be reduced. In the meantime, the cost of connection is still relatively high and availability limited.

Cultural Identify and Information Sharing

The major concern now haunting African developers is the lack of local, relevant content produced by Africans for themselves. Generally, making the Internet relevant to the majority of the 4.7 billion people living in developing countries is one of the major challenges facing policy-makers, NGOs and financiers (**http://www.oneworld.org/ips2/jun/net.html).

Further, as the Internet is a medium mostly for industrialized nations, nearly all information available on the Net is in English. Although there are over 6,000 different languages in the world and only about 470 million people speak English, 90 percent of information is stored in this language. Besides some information in Spanish (two percent), French (five percent) and German, the other languages are nearly absent on Internet (**http://www.Internetnews.com/business/NATW/970421natw.shtml).

This contributes to a globalization of the English language and Western and American culture while lessening of the importance of other languages and cultures. There is emerging a second conquest of Third World and not an exchange of culture values. The Internet serves as an "electronic Trojan horse."

I argue that the cultural needs of developing countries do not share the same evolutionary patterns and pathways as those originators of Internet. Indeed, in all probability, those creating the Internet had only a vague idea of their fruits of labor being eventually adopted in far-off exotic climes. Predictably, therefore, the presence of the Internet and its associative values in developing countries, especially in Africa, is not without its peculiar problems. The question is whether the concept of a wired world is a true globalization of the human consciousness – man's homecoming – or a cunning business strategy to expand diminishing and saturated home markets. Additionally, does the wired world serve as backbone to a hidden doctrinaire networked ideology that pro-

motes a certain type of mindset, values and political process – all conducive to companies looking for new markets?

It would appear that aid agencies are oblivious to this conflict. In Nigeria, for instance, the Nigerian-American Information Initiative (NAII), backed by the U.S. government, was launched on June 14, 2001, in Abuja, Nigeria. It was thick on how wonderful the wired world would be, but thin on the consequences of such a wired utopia. The NAII program has four principles:

1. Information shared is more valuable than information hidden. Secretive and authoritarian societies have proved themselves less capable of meeting the basic needs of their populations than societies with free flows of information.
2. Information should be as easily and cheaply available as present technology can make it. Decisions, from simple purchases that a household makes to budgeting millions of dollars by government, are best made with full and relevant information. Any obstacles to free flows of information impose costs on the society which result in a lower standard of living.
3. For Nigeria to thrive as a democratic society, specific areas of information flows should be given priority. These include education, health, commerce, security and labor.
4. Governments have a responsibility to provide the public with easily accessible information about its activities, while other stakeholders in a democracy are equally responsible for gathering and disseminating information on important policy issues.

As a result of these articles of faith on the efficacy of shared information, it is expected that the NAII will assist government and important private institutions in improving these information flows. But let us see how prepared Nigeria is for this digital utopia.

The Nigerian Internet initiative started with the effort of the Nigerian Internet Group in 1994. During this period the only access to the Internet was Nigerian Telecomms Ltd (Nitel) leased lines, which were then very expensive. Nitel was therefore pressured to build the infrastructural backbone to make this service more accessible and relatively cheaper, to make the Internet effort and awareness drive worthwhile.

Due to the large size of the country and the reluctance of ISPs in deploying their services to the remote areas, Nitel is currently still offering single user dial-up services primarily in Abuja, Kaduna, Bauchi, Kano and Port Harcourt. They are extending Internet access via leased circuits to other cities but only in the neighborhood of these existing points of presence (POP).

When this article was written there were fewer than 100,000 Internet subscribers in Nigeria, while the cost of service was about $420.00 (U.S.) per year, or $35.00 monthly (http://www.itu.int/africaInternet2000/Documents/doc73_e.htm).

Financial Constraints

There are three pre-conditions for using the Internet. First, you need a phone connection; second, a computer and a modem; and third, electricity. Such prerequisites are the exception rather than the norm in Third World:

- Acquiring a computer and a modem requires twice the average per capita GDP in developing countries.
- Seventy percent of all Africans live in rural areas without any power supply.
- Africa has the least developed telephone infrastructure in the world, and not much progress is being made in improving rural connectivity on a continent where 12 percent of the planet's population shares two percent of its telephone lines.

In general, developing countries are up to their necks in other budget requirements besides ICT. There are more pressing things to purchase – guns, MiG fighters, tanks and various exotic ammunition are all more critical to maintaining state control. It is obvious that they do not mention the problems of poverty, settlement conditions, corruption, justice and crime. They try to solve social and economic defects by technical means. Injustice and poverty are not technical problems; they need other solutions. Technology may only help in solving theses problems, if used properly.

In cases where tin-pot dictators are not busy looting the treasury to either enrich themselves or obtain weapons of singular and mass destruction, the sheer level of poverty necessitates critical attention to health, agriculture, education, infrastructures and other social development parameters. Perhaps not surprising, ICT is the least consideration in these circumstances.

Thus in all the euphoria that follows a new initiative, salient points seemed to be overlooked, and these would have an impact on any information-sharing policy. As argued by Paula Uimonen of the United Nations Research Institute for Social Development,

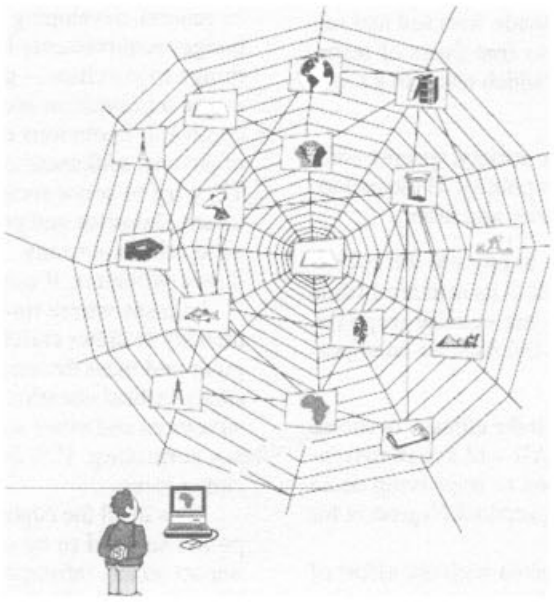
> *Although the innovations in digital technology are impressive, we must not forget that technology in itself is not a determinant of change, only a facilitator. As with any other technology, it is the social context within which these new technologies are introduced and, more importantly, implemented, that determines their usage and impact. Accordingly, we are not hopelessly caught in a wave of historical change; we are the ones bringing it about. The information revolution has much less to do with bits and bytes than it has to do with the realities and aspirations of everyday people.* ("The Internet as a Tool for Social Development," http://www.isoc.org/isoc/whatis/conferences/inet/97/proceedings/G4/G4_1.HTM).

Clearly, therefore, any knowledge-pooling strategy using global networks as its matrix needs a more carefully thought out plan, rather than a pot-shot approach of the marketing operations in major software houses of developed countries.

Knowledge Management

As in industrialized countries, use of networks between universities and educational institutions in developing countries can offer access and exchange of information otherwise accessible only in capital cities. Scientists, academics and university students can consult databases outside their countries and get knowledge otherwise closed for them. Most libraries in Third World countries have only a few books and students cannot afford to buy expensive books from abroad.

But it is not certain that all information from the North is really important for developing nations. This harks back to the issue of the relevance of the content of materials on Internet for libraries and institutions in developing countries. A way out could be the use of existing Internet information as a basic framework around which similar knowledge could be generated by academics in Africa. However, would such material be as readily downloaded on the other side of the connection from developing countries? In other words, would the world share the same enthusiasm for the developing world's perspective on issues such as democratization, gender studies and community empowerment – issues which have been long flogged to death in developed countries?



While the Internet is expanding in expensive private universities, even in remote areas, providing Internet access to students in poor schools in poor countries is not feasible or useful. Most schools cannot afford even to provide books for their students, and in some areas the prospect of receiving a meal is still the most powerful attraction for students. Installing computers connected to telephone lines, under these conditions, is completely unreal.

City Limits to Man's Homecoming

Thus to the sober observer the Internet is a remarkable technological development. However opportunities provided by such technology stand in contrast to anxieties about the Internet. More often than not the Internet is seen as a problem. Content considered by some to be objectionable exists in abundance in cyberspace. Telecommunications systems can also be used for harassing, threatening or intrusive communications (http://www.aic.gov.au/conferences/other/cybercrime.html).

It should not be surprising that governments around the globe are eager to control this new medium. Every communications advance in history has been seen by self-appointed moral guardians as something to be controlled and regulated. Governments all over the world, including those sharing the same existential mindsets, started to introduce measures that limit access to information of its citizens. Let us see some examples.

In August 1996 Scotland Yard wrote to 140 Internet service providers (ISPs) instructing them to remove 133 newsgroups containing illegal material. The ISPs suggested that there were more effective methods of regulation. While accepting it was necessary to censor material on the Internet there was discussion as to how best to do it. The acceptance of the need for censorship by ISPs was central to the establishment of the Internet Watch Foundation. Originally called SafetyNet, the Internet Watch Foundation was set up to "hinder the use of the Internet to transmit illegal material, particularly child pornography, and encourage the classification of legal material on the Net in order to enable users to decide for themselves what they and their children will see." (*Internet Watch Foundation Press Release*, 3 December 1996.)

On July 13, 2001, Reuters reported that Afghanistan's then-ruling Taliban movement had banned the use of the Internet in the war-torn country to stop access to vulgar, immoral and anti-Islamic material. The report further quoted a government official as saying "We want to establish a system in Afghanistan through which we can control all those things that are wrong, obscene, immoral and against Islam." The Taliban mindset did not take into consideration that wrong, obscene, immoral and anti-Islamic information exists only where one goes looking for it. Avoiding it does not make it go away. Further, Islam has a much more free platform of expression in non-Muslim countries such as the United States than it would ever have in the Middle East. Indeed if all Internet-based information on Islam is to be located in the Middle East, then Islam would not have presence on the Internet at all. (**http://www.hrw.org/advocacy/Internet/mena/summary.htm).

The Internet and its associative philosophy – sharing infor-

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mation – is a voluntary system: one has a choice to either use its unsavory facets or ignore them.

In India, Videsh Sanchar Nigam Ltd. (VSNL) (owned by the Indian government) was the nation's largest ISP and controlled the international Internet gateways used by ISPs in India. During the last week of June 2000 at the height of a crisis with Pakistan over Kashmir, Internet users in India could not reach the online news site of the Pakistan daily *Dawn*, which was known for its independent coverage of the crisis. Fearing that VSNL gateways blocked access to the newspaper site, other websites began posting information explaining how surfers from India could break the blockade, and a number of mailing lists began circulating articles from Dawn in text format.

In Bahrain, Iran, Saudi Arabia, the United Arab Emirates (UAE) and Yemen, ISPs – either under government orders or pressure – all have blocked websites on the basis of their content, including cultural or political content. Proxy servers such as those in place in the UAE and Saudi Arabia could be used by authorities to track which computer terminals were accessing which websites and for how long.

On June 30, 1999 the Australian government approved the Broadcasting Services Amendment (Online Services) Act (scheduled to go into effect in 2000), which would force Australian ISPs to remove objectionable material from Australian sites and to block access to similar sites overseas. The new law placed sweeping restrictions on adults providing or gaining access to material deemed unsuitable for minors (*Freedom of Expression on the Internet*, **http://www.hrw.org/reports98/publctns.htm).

In late 1998 the United States Congress passed the Child Online Protection Act (COPA), making it a crime to publish "any communication for commercial purposes that includes any material that is harmful to minors, without restricting access to such material by minors." In April the U.S. Department of Justice appealed a federal appeals court ruling declaring the law unconstitutional, the result of a lawsuit brought by opponents of the COPA (*Freedom of Expression on the Internet*, **http://www.hrw.org/reports98/publctns.htm).

In China, over the past year, new regulations and controls have been imposed on use of the Internet, including censorship of foreign news sites, the creation of special Internet police, and actions to shut down Internet sites posting information on corruption or articles critical of government. Internet cafes are required to register and inform the police about their customers. The Ministry of State Security has installed tracking devices on ISPs to monitor individual e-mail accounts. And bulletin boards critical of the government have been shut down (China: Controls on the Internet, Human Rights Watch Extracted from Human Rights Conditions and U.S. Policy, May 17, 2001).

Back to the United States, the controversial FBI initiative, Carnivore, now referred to by the FBI as DCS1000, allows the FBI to intercept the contents of electronic communications of a specific person passing through an ISP's network if the Bureau obtains a Title III court order.

There have also been numerous instances of hacking and of concerted electronic attacks on Internet sites, which are a major source of concern to both civil and military authorities in the United States and elsewhere.

It is easy to believe, therefore, if the free world can be paranoid about its citizens, then countries with tin-pot dictators (in whatever guise) such as most African countries would display extreme cases of schizophrenia, especially in cases where routine closing down of newspaper houses accompanies unfavorable editorial review of a government policy.

Conclusions

The use of the Internet to share information in the Third World has its benefits, but usually only the elite of the countries will profit from it. Although the use of the Internet by engaged groups is something good, the implications for improvement of the vast majority are limited. Internet use by NGOs and by high level education and research institutes and government will only help if the elite are conscious of their responsibility for the well-being of the whole society. Information-sharing networks are good, desirable and workable. The biggest challenge to information technicians is the evolution of the strategy that makes this information sharing fair to all who access the information.