

## The Net, Its Gatekeepers, Their Bait & Its Victims

### - Ethical issues relating to the Internet

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## **Introduction**

Writing about the introduction of television into American homes in the late 1940's and early '50's, George Comstock noted its diffusion was so rapid, "that what occurred approximated a revolution, even though its effects on the whole were slow to evolve."<sup>2</sup> The arrival of Internet access to homes across the (mostly developed) world approximates the next revolution, and its effects may well be equally slow to evolve. Although it may not fit all the criteria of the existing mass media, it is nonetheless the fastest growing communications medium in the world today. Its widespread diffusion promises to have significant global consequences.

One especially noteworthy aspect of the Internet is that until now it has not been formally controlled by any public or private entity. The United States, with its enduring frontier mythology and history of gold rushes, has seen many of its citizens embrace the Internet as an opportunity to homestead on a virtual frontier. They are seizing the opportunity to map out new electronic territories and, increasingly, they dreaming of striking it rich through on-line commerce. The Clinton-Gore administration has a policy to hook up every elementary and secondary classroom to the Internet by the year 2000. Indeed, across the world there has been a growing consensus that schools without such access are in some sense depriving their students of a fundamental educational resource.

A variety of promises have been made or at least implied in relation to the Internet. Its proponents make much of its ability to deliver the latest research from a wide variety of disciplines to millions of users. It is seen by some as the saviour of democracy, the social weapon that will destroy hegemony and prevent the political manipulation of society. Claims are frequently made that it will create a new and powerful voice for the people. The promises, extensive and seemingly limitless, are however often made without reference to any of the costs involved in the delivery of such a system. No technology has ever been adopted without social cost, and it is certain that, whatever the benefits, a communications technology as powerful and as "revolutionary" as the Internet will exact a considerable cost from existing social structures.

There is no such thing as a free lunch. The goods promised by Internet development have to be paid for in hard cash. These costs are not only financial, but also social and cultural. A few commentators have begun to count the cost. Some caveats have been forthcoming from neo-Luddites, ranging from a concern about a loss of writing skills, already evident from the use of spell checking in word processors and a tendency to streams of ungrammatical prose in e-mail, to a range of social ills, up to and including an Orwellian nightmare of excessive social control.

## **A Growing Phenomenon**

Bruce Sterling, an Internet historian, describes "the seething, fungal development of the Internet."<sup>3</sup> As the 1990's progressed we became aware of just how big a phenomenon the Internet was going to be, although we still have no idea what its final shape will be. 1996 was a year when the Internet kept on growing, either increasing by 50 percent or doubling its user base over 1995, depending on what surveys you

believed. At the end of 1996, the best estimate is that there were approximately 45 million people using the Internet, with roughly 30 million of those in North America (USA/ Canada), 9 million in Europe and 6 million in Asia/Pacific (Australia, Japan, etc.). The scale of change is evident from the 1997 figures seen below in Table 1. And by 1998 the worldwide figure had grown to 153 million users. Table 1 indicates the scale of change over the three-year timeframe.

**Table 1 Million Internet Users by Continent, 1996 - 1998**

	1996	1997	March 1999
Africa	-	1	1.14
Asia	6	14	26.55
Europe	9	20	36.11
Middle East	-	0.5	0.78
US/Canada	30	64	94.2
South America	-	1.3	4.5

### **The New Media**

Each new communications medium is always hyped as it is being introduced. Adoption is encouraged with promises about the quality products it will deliver. As usage becomes widespread, however, there is little further incentive to maintain consistent levels of quality so that, in the end, programming tends to follow the formula for the lowest common denominator because junk overwhelms the quality material. This is evident, for example, in the case of television, with many commentators lamenting the demise of “the golden age of television” of the 1950’s. The increase in available broadcast slots, on terrestrial, cable and satellite television has not been matched by an increase in quality materials, so much of what is used to fill the vacant spaces is of low quality, mass produced for a mass market with little attention to content or effect. It is the technological equivalent of Parkinson's law, that content expands to fill the broadcast time available. Given the incredibly large capacity of the Internet, with each individual a potential publisher, it seems reasonable to expect that a certain amount of what is offered in this new medium will be of the high volume, low cost variety which offers little by way of quality. It is important, at the same time, to indicate the enormous potential and actual benefits of Internet development. Despite the proliferation of material of dubious quality, the Internet has already proved itself a social boon. It allows for the easy communication between individuals and groups, from the one-to-one of personal e-mail to large-scale communications across corporations, academies, and multinational interest groups of all kinds. It makes available an enormous amount of documentation on a bewildering array of issues. It allows the swift transmission of information hitherto almost impossible. The authors of this paper, in fact, used the Internet to gather much of the data presented here and through video “Net Meetings” were able to work together in real time both in the drafting and revision of the essay. The Internet also facilitates the transmission of software, in the form of programs or patches, that have made technical support vastly easier for both supplier and end-user.

The Internet, however, remains an infant medium, still in the early years of its adoption curve. It is still growing dramatically in terms of both its user base and its product offerings. But like most other media, the potential uses are probably largely unseen at this stage of development. A quick survey of previous adoption factors in relation to other mass media indicates some of the issues in connection with Internet development.

### **Previous Instances of Hype:**

The telegraph made at least four important contributions to communications.<sup>4</sup> Firstly, by separating communication from transportation it allowed for instantaneous communication across vast distances; it allowed for the coordination and expansion of both military and commercial activities; with the rise of wire services the commodification of information began and, finally, the development of the telegraph in the United States in the hands of private enterprise served as a model for subsequent communication technologies.<sup>5</sup>

The telegraph was initially received with spontaneous gatherings of cheering crowds in New York and American other cities. People were excited at the possibility of being in closer contact with other parts of the United States and Europe. It did not take long, however, for Henry David Thoreau to come up with a critical insight:

“We are in great haste to construct a magnetic telegraph from Maine to Texas; but Maine and Texas, it may be, have nothing important to communicate. Either is in such a predicament as the man who was earnest to be introduced to a distinguished deaf woman, but when he was presented, and one end of her ear trumpet was put into his hand, had nothing to say. As if the main object were to talk fast and not to talk sensibly. We are eager to tunnel under the Atlantic and bring the Old World some weeks nearer to the New; but perchance the first news that will leak through into the broad, flapping American ear will be that the Princess Adelaide has the whooping cough.”<sup>6</sup>

Just because a technology is available, it doesn't mean that it will provide an important benefit for society.

The telephone was, “the first electric medium to enter the home and unsettle customary ways of dividing the private person and family from the more public setting of the community.”<sup>7</sup> Although by any standards the telephone's diffusion was remarkably rapid, it began with business users and only gradually being adopted for residential use. As with the Internet now, claims were made that the telephone was a force for democracy because it enabled citizens to communicate across distances without being controlled by a central authority.<sup>8</sup> Although this is interesting speculation, the early history of the telephone, at least in the United States, is replete with efforts to keep the technology out of the hands of ordinary citizens.<sup>9</sup> In the same way that the telegraph spawned Western Union, the first of the huge communication conglomerates, so the telephone brought about the rise of AT&T.

AT&T was also an important force in the commercial development of radio. At first, radio was the domain of enthusiastic amateurs and later was promoted as an advertising-free service by the makers and retailers of radio receivers. In 1922, however, AT&T's New York City station began

selling advertising time and American radio soon fell into a largely commercial format consisting mainly of popular music, dramas, sports and comedy. The ubiquity of radio broadcasting meant that it had little trouble establishing itself at the heart of American culture. Television would later adopt and retain the same basic format as radio. When television was first introduced, it was important to provide good children's programming and quality dramas for adults so that those who could afford the expensive TV sets would be persuaded to part with their money. As TV diffusion gathered pace, there was less need to provide non-revenue producing programming and so the quality of its offerings began to diminish. Both radio and television in the United States, and increasingly in other countries, are not so much communications media as marketing channels. Their major goal is to gather audiences with popular and undemanding entertainment so that they may be advertised to by sponsors. We may well be experiencing the final days of the Internet's "golden age." There can be little doubt that many of the Internet's boosters see it as a "new and improved" means of selling goods and services and that their voices will increasingly dominate the bandwidth of the Internet.

### **The History of the Internet**

Cold War military exigencies were behind the development of Internet technology. The goal was to enable command and control information to survive a nuclear attack by being sent along the multiple paths of a shared network. The initial hub of ArpaNET, the first wide area computer network, was established at UCLA (University of California at Los Angeles) in 1969. The following year hubs were added at Harvard and MIT (Massachusetts Institute of Technology). The goal was to experiment in reliable networking and to link together the U.S. Department of Defense and its military research contractors, including universities doing military research. So many other academic institutions clamored to be linked to the network, however, that military functions were given a linked but separate network. ArpaNET was replaced in 1990 by NSFNET which was still dedicated only to education and research. Commercial users, however, are able to communicate with this or any other network. The result is called the Internet – a worldwide network of networks with no one person or group in control.

As initially conceived, the Internet was intended for high-level research functions involving the transfer and sharing of data files. After some time, however, researchers realized that it could be used to send personal messages back and forth and thus e-mail was born. A little later, the first entrepreneurs ventured on to the Internet and began offering various goods and services.

The university researchers and other initial users of the Internet, however, did not have electronic commerce in mind when they talked about the benefits of the Internet, preferring to see it as a potential boon for democracy, an electronic town hall where all sorts of voices could be heard because the traditional hierarchies had no control over the use or content of the Internet. Enthusiasts like Howard Rheingold, who was one of the first to write about the Internet as a "virtual community"<sup>10</sup>, saw it as a

harbinger of freedom which would bring an end to the hegemony of the existing social and political elite.

It did not take long, however, for managers and other high-level officials to install filters into their e-mail programs so that only those messages they deemed as important could get through to them. Further, mindful of studies showing that up to a 60% reduction in office productivity when e-mail and the Internet are introduced, companies are increasingly monitoring and in other ways restricting the Internet activities of their workers.

### **Recent developments**

As this is being written in early 1999, survey data indicates that there are 43.2 million Internet hosts in the world. Sixty per cent of these are in the United States and more than 12 million of them are commercial sites (".com").<sup>11</sup> It should also be noted that both the backbone of the Internet and the registration of domain names have been privatized.

A report from the Marketing Corporation of America states that \$8.5 billion was generated through "e-commerce" during the 1998 Hanukkah and Christmas season.<sup>12</sup> U.S. companies are plowing enormous sums into developing Web-based marketing. IDC Research indicates that American companies will spend \$85 billion on the Internet in 1999 and other "first world" countries are also increasing their investments.<sup>13</sup> Increasingly the Internet is turning into an electronic shopping mall. Intelliquest's most recent study indicates that 60 percent of US users shop online, with 20 percent purchasing online. Books are the most popular product to buy online with automobiles, and computer products the most popular products to shop for online.<sup>14</sup> ActiveMedia report that, in the past year, retail, entertainment, and other Web sites catering to consumers (half of all online business sites) have been the fastest-growing category on the Web.

"Average monthly sales revenue (among retail sites that generated revenue) now stands at \$40,273, up from \$13,260 at the same point in 1997- a dramatic increase. Retail sites are also primary beneficiaries of Web advertising revenue. Advertising flows to sites with many visits, and high-volume retail sites have been quick to recognize the opportunity to build a secondary revenue stream from transient visitors. Advertising for complimentary products allows sites to harvest their primary revenue stream from visitors with a direct interest in the products and services, and to draw the secondary revenue stream from those who may have greater interests elsewhere."<sup>15</sup>

Few companies, however, are yet making profits from their Web-based commercial activities. Pornographic sites and stock traders are supposedly making money, but everything else is making a loss as yet despite high prices for shares in many companies involved in electronic marketing.

### **The Media Oligopoly**

The mass media are controlled by a series of oligopolies. As Benjamin Bagdikian points out, "newspapers, magazines, broadcasting systems, books, motion pictures, and most other mass media are rapidly moving in

the direction of tight control by a handful of huge multinational corporations. If mergers, acquisitions and takeovers continue at the present rate, one massive firm will be in virtual control of all the major media by the 1990s."<sup>16</sup> The figures he cites are alarming. Despite 25,000 media outlets in the US, most of the output is controlled by twenty three corporations. The number of daily newspapers continues to shrink and there are only three dominant players in the magazine industry. Six corporations control most of the book market, while four lead the motion picture market. In the words of a former U.S. Supreme Court Justice, Louis Brandeis, such dominance with its interconnection to other corporations, is entirely contrary to 'a fair field with no favors.' It is fair to ask if the Internet be any different?

### **The direction of Internet Development**

Fifty percent of all traffic on the World Wide Web goes to the top 900 Web sites now in service.<sup>17</sup> All of the top ten Internet Service Providers (ISPs) are based in the United States and function as "portals" or "on-ramps" for people accessing the Web. In one sense these portals function as essential gatekeepers for the web. These top ISPs are listed in Table 2.

**Table 2 The Top Ten Internet Service Providers (ISPs)**

Ran k	Site	Visitors Per Month
1	yahoo.com	26,480,000
2	aol.com	23,321,000
3	microsoft.com	20,243,000
4	netscape.com	15,892,000
5	geocities.com	15,238,000
6	excite.com	14,549,000
7	lycos.com	11,831,000
8	msn.com	11,136,000
9	infoseek.com	10,434,000
10	altavista.digital.c om	8,956,000

The issue of portals has become important because whichever company gains dominance will have a huge "captive" audience for on-screen advertising and various forms of direct and indirect marketing. The portals also make sure that when their users look for particular services, (e.g. on-line book stores), they are first directed to those companies who have paid the portals' owners to promote them. Book purchases are one of the fastest growing dimensions of the web retail market. Amazon.com, one of the largest book retailers on line, has no retail outlets and sells exclusively via the Internet. It advertises extensively on the Internet, for example, on the frequently used [www.altavista.com](http://www.altavista.com) search page. Amazon, in fact, has an advertising banner on the opening or secondary pages of eight of the top ten ISPs, with Barnes & Noble, and Borders having one each of the remainder. This portal connection to advertisers is important as it indicates the power of the Internet to direct users in a specific direction. Amazon

exists entirely as an Internet creation and has already been floated on the stock exchange as a result of its unprecedented growth.

Advertising is clearly not limited to books. A large variety of goods are advertised or promoted on the Internet, and if any company can gain a foothold in a particular market, its success will most probably be assured. This only becomes problematic with the issue of cross-ownership, where a given advertiser has dominance in virtue of a vertically integrated market. Such is the case with Microsoft's attempt to create dominance in the web browser market with the linkage between its operating system, Windows 98, and its associated Internet browser, Internet Explorer. Microsoft is the dominant player in personal computer operating systems, with an estimated 90 percent of the market. Its efforts to build its browser software into its operating system have met with fierce resistance in the US under existing monopoly law. The case is currently before the US courts.

### **The Promises...**

Writing in 1992, Howard Rheingold stated that, "Today's new communication technologies differ from earlier ones in the greater degree to which, through computer processing power, they span space, time, and preexisting social arrangements."<sup>18</sup> For many users, one of the most attractive elements of the Internet is its promise to give control of the communications process back to the individual. Users of the Internet, at least in theory, do not even have to identify themselves to their interlocutors. Online anonymity, the ability to adopt a new persona at will and to visit any and all of the Internet's sites is much appreciated by Net surfers. The vast majority of Internet users do not have video cameras or microphones attached to their computers, so it is almost always impossible to determine the age, gender, race, or physical appearance of other people who are online. Promoters of the Internet see this as an enormous benefit; it removes the taints of racism and other forms of stereotyping and instead promotes the unrestricted exchange of ideas. Because most Internet activity is text-based, there is also a degree of a-corporeality and an ease of a-synchronicity involved with Internet use.

Rheingold and others of like mind have promoted the idea that Net surfers could "homestead on the electronic frontier,"<sup>19</sup> establishing "virtual communities" where old rules and old power structures would not apply. Control would pass from the established cultural and social elite to decentralized and radically democratic groups. Internet users are also promised instantaneous access to vast libraries of information, with links to causes they are interested in and the ability to search without cost through vast libraries of information.

Other promises of the Internet have included opportunities to avoid business travel through advanced video conferencing, "telecommuting" to work instead of grinding along in traffic jams for hours on end, the possibility of bypassing traditional education through "distance learning" and obtaining, even in the most remote parts of the world, advanced diagnostic and other medical care through "distance medicine." Businesses, of course, are promised easy access to ever growing millions of literate and prosperous potential customers.



## The Reality

It is hardly surprising that the reality of the Internet does not always match the rhetoric of its most ardent promoters. The Internet does still allow the individual a large amount of personal control, but the frontier is getting tamed with considerable speed and fences are going up all over the place. ISPs have installed filters to check for unacceptable language in e-mail messages, they sell demographic and other information about their subscribers, and they have proved ineffective in stopping the delivery of Spam messages (unsolicited bulk e-mail offering goods and services).<sup>20</sup> A recent survey indicated that Spam mail could be hurting British and Irish businesses as much as \$8.2 billion per annum.<sup>21</sup>

The anonymity and personal privacy of online users is constantly under threat. "Cookies", text files which many Web sites place on the hard drives of Net surfers, enable sites to track the usage patterns of those accessing their Web pages. Most users of the Internet are unaware that their Internet surfing is being tracked in this manner; "Cookies" are enabled on both the Netscape and Microsoft browsers unless they are overridden by knowledgeable users. Moreover, Microsoft prohibits access to some of its pages to users unwilling to enable "cookies." Recently, the Intel Corporation has come under severe criticism over an identifying feature in its new Pentium III chips which would allow Web sites to monitor Internet usage even if the "cookies" feature was disabled.

There is credible evidence that some virtual communities are flourishing on the Internet, but that is not where most Net surfers head when they go online. A report by Cyberdialogue, for instance, states that more than two-thirds of active Internet users in the US seek out entertainment content.<sup>22</sup> When movies and the VCR were first introduced one of their most common uses was for the delivery of pornography. The Internet is proving to be another popular source for pornographic materials.<sup>23</sup> Few of these sites allow free and unfettered access; visitors either have to pay to enter the site or else they have to provide personal details which render them liable later on to become recipients of "adult-oriented" advertising and promotions. Children, however, can still easily find their way to sites which present "free samples" or other materials which are unsuitable. They are also vulnerable to approach by individuals who do not have their best interests at heart.<sup>24</sup> There are a number of documented cases where Internet encounters have led to the death of children who were lulled into believing that they were meeting a peer.<sup>25</sup> Other assaults, occurring as a result on Internet encounter, have also been reported.<sup>26</sup>

The Internet does contain vast amounts of useful data and is still an invaluable source for all kinds of research. Search engines, (such as Yahoo!), have brought some kind of structure and order to the Internet, but it often remains a frustrating place to do research. More and more, newspapers and other information archives are charging for access<sup>27</sup> and even in free sites it is often difficult to sort out the chaff from the wheat. It is easy to waste hours online looking for information that remains forever elusive. Further, the promise of instantaneous access is increasingly being challenged by "timed out" messages and other indications of

massive Internet congestion. The Internet is in many ways a victim of its own success.

The promises of telecommuting, distance learning and distance medicine remain, for the most part, unfulfilled. Progress continues to be made in all these areas, but there has yet to be any kind of massive switch of resources towards these online activities.

### **Specific Internet Issues**

Access to quality information on the Internet is being threatened by the continued privatization of Net resources, but the promise of boundless knowledge continues to be promoted as a “bait” to encourage new users to go online. One example of this has been seen recently in Ireland. A new company has been proposed which is based on the premise that knowledge is a tradable substance, and to a certain extent can be commodified or packaged into tradable units or assets, an extension of an idea which began with the telegraph. This company will be encouraging experts in various subjects to form a guild which specializes in that subject. That guild will package knowledge, put it in wrappers which will list the subject matter, the author, the provenance of the knowledge, the currency, and the price to open the wrapper. The guild collection of wrapped packages will be password protected and opening one will cause the buyer’s account to be automatically debited. The company will take a slice off the top of the revenue generated. It is envisaged that the Internet will be the medium for delivery of the various packets of information. Such a proposal is clearly a long way from that of a freely accessible library of shared knowledge. The antithesis to this is a project like Project Gutenberg, or the Center for Electronic Texts in the Humanities, which aim to make electronic information available to all.

Anonymity, as already noted, is also under threat but its appeal is still strong to many new users of the technology. Many people buying computers capable of accessing the Internet are parents who are being persuaded that their children are in danger of falling behind at school if they do not have computers to help them with their homework.<sup>28</sup>

There has been a steady increase in the amount of Internet fraud and other crimes. According to the Internet Fraud Watch of the National Consumers League complaints have increased 600% since 1997,<sup>2930</sup> and the FBI reported a 250% increase in cyber crimes over the last two years.<sup>31</sup> The InterGOV International Web site predicts that there will be more than 500 Web crimes reported each day in 1999, although it also notes that less than 10% of Web crimes are ever reported.<sup>32</sup> It also reports that, according to the accounting firm of Ernst & Young, cyber crimes amount to some \$5 billion per year.

Two further issues also arise here. Firstly, the Internet is becoming the sole source of certain information, and its very existence can allow those charged with publication of various materials an easy solution. This is, of course, problematic for those who do not have Internet access and rely on other forms of media for information. Allied to this is a second issue whereby additional cost accrue to non users of the Internet. One recent example of this is the decision of Delta Airlines to add \$2 to the cost of every airline ticket which is not purchased on line.

## **The Victims**

It seems clear from what has been noted above that children are especially at risk when it comes to the Internet. It is true that, in most respects, they are no more at risk in front of the computer screen than they are in front of their televisions or out alone on the streets of any city. Among the threats, besides pornography, that young people can come across on the Internet are ultra-violent computer games, cigarette and alcohol ads specifically targeted at them, pedophiles and others who harass children, racist and other noxious kinds of propaganda, and even instructions for committing suicide. The real issue with regard to children and the Internet is a lack of adequate parental supervision.

The poor in developing countries, and especially those in rural areas, have almost no chance to access the Internet. Indeed, in many parts of the world, the literacy needed for navigating the Internet is far from widespread. The poor are thus at a severe disadvantage in a global economy. Even in the United States, the richest country in the world, a quarter of the nation's children are being raised in poverty and cannot go online with the same ease as those who have direct connections to the World Wide Web from their homes. It is true that some schools and public libraries do provide Internet access, but the number of terminals is usually quite limited and the amount of time people can spend online is sometimes restricted. The development of information "haves" and "have nots" based upon financial resources continues unabated.

## **Ongoing Developments**

The latest Bill to protect children by requiring age verification for adult sites has been stayed by a Federal judge on the grounds that it goes against freedom of speech. Because of the First Amendment to the US constitution, which guarantees freedom of speech, there seems to be little that can be done to regulate content on a worldwide basis, given the dominance of the US in terms of the Internet. The \$107 million punitive damages award granted to those who sued the anti-abortion "Nuremberg Project" Web Site because it identified abortion providers and then crossed off their names if they got murdered, is indicative that some elements of speech are not quite as free as others.

## **A Broader Perspective**

There are wider concerns relating to Internet development beyond those listed above, which are focused on emerging dimensions of the Internet as it is today. But looking further afield from a different perspective, the Internet appears to be geared specifically at a wealthy western world. The 1995 Panos Media Briefing put it concisely:

The new information age is upon us. Over 40 million people across 168 countries are now wired up to the internet - a collection of computers around the world linked to cables like ordinary telephone lines allowing the transport of digitised information. Both the speed of that transport - messages can be sent across the world in the time it takes to post an airmail letter - and the fact that information can be sent to one or one thousand people for the same low cost, mean radically new patterns of communication.

And that can empower. Everyone from journalists to indigenous peoples can access a store of information - some reliable, some not so - in a short time. Many Southern based organisations are at the forefront of electronic communications. A publication in Bombay keeps tabs on World Bank funded projects through a worldwide network of contacts. Meanwhile in Zambia, doctors in rural hospitals can seek specialist advice from Lusaka, and the capital's independent newspaper, the Post, is available on the internet.

But costs are a constraint. Individual users need a computer and modem, affordable telephone lines and reliable electricity. On a national level, the need for such a hi-tech infrastructure has seen the rich countries race ahead. More than half the connected computers in the world are in the United States, whereas in Africa less than 10 countries are directly connected to the internet. In theory the means to handle information are increasingly available and democratic. In practice there is a danger of a new information elitism which further disenfranchises the majority of the world's population. In the short term, the North-South information gap looks set to increase, particularly for Africa.<sup>33</sup>

The Internet is currently geared almost exclusively toward those in the developed world with disposable cash. The concerns indicated in the Panos briefing are not unfounded. Most of the millions of the millions of documents on the web are on the 70 percent of US hosts. There are less than 10 African countries on the Internet. Some 80 percent of the world lacks basic telecommunications. And costs in the developing world are both directly and proportionately much higher. A modem in India, for example, costs 4 times what it costs in the US but represents a far greater proportion of a worker's income. Access in Indonesia costs 12 times that in US.

### **Africa could use a good net...**

As the Panos briefing indicates, the problem is especially acute in Africa. About 70percent of Africa is reached by radio, and 40percent by television. Less than 0.1percent of Africa is reached by Internet. And it is Africa that the developmental need is greatest. Some 87percent of Swedes own a mobile phone while less than 1percent of Africans have ever used a phone. Basic telecommunications services hardly exist in many parts of Africa. PC access is an unknown luxury. And so the promise of the Internet as a source of information and as a potential for economic development is almost meaningless. But there is a serious question placed over the notion of Internet development in Africa. As Saradar puts it 'with the money needed to enter the Internet world, you could feed a family in Bangladesh for a year. The more the Internet develops, the more it will become basically a commercial place. Communities which are rich will become powerful; but the vast majority will be worse marginalised. I think the Internet will be a weapon of economic power and knowledge.'<sup>34</sup>

But Hudson points out that the Internet is no longer a luxury

'Until recently, telecommunications was considered a luxury to be provided only after all the other investments in water, electrification and roads had been made - and after all the demand for telecommunications in the cities had been met. Instead, telecommunications should be considered a vital component in the development process ... in developing regions.'<sup>35</sup>

## **Development Issues**

Saradar and Hudson point to a real difficulty in terms of development. On the one hand the Internet as a fundamental dimension of telecommunications infrastructure cannot be regarded as luxury even in developing nations while on the other every effort must be made to ensure that any such Internet promotion in developing nations must be undertaken as genuinely useful rather than exploitative. The Panos briefing refers to the phenomenon of the rusting tractor.

The history of development assistance is littered with failed initiatives to transfer technologies to developing countries. Stories abound of huge shipments of tractors - or lorries or turbines or television transmitters - arriving to transform the prospects of developing countries only to end up rusting and useless through want of spare parts or adequate training to operate and repair them. Such failures have almost always derived from a lack of any feelings of ownership or participation by the groups they have been designed to benefit. If this can happen with a tractor, it can happen with the more delicate and fast-moving technology of the computer. Such concerns are being fuelled by the rapid increase in organizations dedicated to spreading connectivity in developing countries.<sup>36</sup>

The same 'rush to wire' is being experienced within education. But what is missing in many cases seems to be any serious analysis of why this is being done. In the education sphere it is clear that there is a perceived need that every school should be in the Internet but there is, as yet, little research to validate the idea that children can necessarily learn anything in a superior fashion from the Internet than they can through traditional models. There is certainly a wealth of information now at the fingertips of school children, but it is not necessarily the soundest pedagogical approach to point them in the direction of the internet as a source for material for projects and other work.

Similarly with developing nations there is a real need to ask what is being done why, a modern version of *cui bono*. Reports are already coming back to the west of travelers reaching outposts of civilization only to find the whole village gathered around a single television set watching *friends*. Is the purpose of Internet development one of resource provision to nations in need or is it more a case of delivering more audience to the advertiser?

The dangers to which Saradar, Hudson and others alert us is one of losing sight of other needs in the push for technological development. The real question in this regard is relatively simple: what difference does technology make that cannot be achieved effectively by other means. Perhaps one classic anecdote illustrates this well. It has been reported that during the space race it became quickly apparent that the normal ballpoint pen would not work in space. The American space research team spent enormous sums of money and valuable time on developing a pen that could write effectively in non-gravity situations. The Russians simply decided to use a pencil.

A recent US survey ascertained the importance of the Internet across the US. The first-ever "America Online/Roper Starch Cyberstudy 1998," a sample of 1,001 adult Americans who subscribe to online and Internet services from home, revealed that more than three-quarters believe that being online has made their lives better. According to Bob Pittman of AOL, the Internet has surpassed VCRs, stereos and cable TV as a necessity for those who have access to them.

Whether it's keeping in touch with friends and family, getting information to make better buying decisions or trading stocks, people are clearly seeing everyday tasks are easier and more convenient when they're done online - and the longer people have been online, the more benefits they notice.<sup>37</sup>

While nobody would want to quibble with the results of such a survey, it does raise questions as to how Internet development will benefit developing nations if its primary life-enhancing benefits in the US are keeping in touch and getting information regarding stock trading.

### **What now for the Net**

The development of the Internet provides society with a new powerful technology which is, of itself, amoral. Like any other tool it can be used for weal or woe. This paper has developed the idea that the Internet has great promise but with certain limitations. The fulfillment of its initial promise has, at best, been limited. Of clear concern is the ongoing commercialization of the Internet and the danger of it becoming an effective oligopoly. Also of concern is the push to promote Internet activity on a global scale, without a clearly defined objective in mind. This runs the risk of allowing the technology to be the driving force without any regard to content or use. Previous experience from other media, most recently television, has clearly indicated the folly of such a move. What is needed is a serious debate about the Internet, its development, practice and ethics, so that all of society is well deserved by this powerful technology rather than simply the interests of the powerful few. It is the hope of the authors of this paper that such a debate will be seen in the months and years to come such that the issues are highlighted and debated before they become problematic.

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<sup>1</sup> Breen was conference presenter and is the corresponding author.

<sup>2</sup> George Comstock, Evolution of American Television, (Newbury Park, CA: Sage Publications, 1989)

<sup>3</sup> Bruce Sterling, "History of the Internet." (<http://www.dsv.su.se/Internet/documents/Internet-history.html>)

<sup>4</sup> The Internet, at least in its initial phases, has been an American-led phenomenon. In considering some historical precedents, therefore, emphasis is given to the introduction of communication technologies in the United States.

<sup>5</sup> cf. Richard Campbell, Media & Culture, (New York: St. Martin's Press, 1998) [7]

<sup>6</sup> Henry David Thoreau, Walden (1854)

<ftp://uiarchive.cso.uiuc.edu/pub/etext/gutenberg/etext95/waldn10.txt>

<sup>7</sup> *ibid.*, [6]

<sup>8</sup> Colin Cherry, "The Telephone System: Creator of Mobility and Social Change" in Ithiel de Sola Pool, ed. , The Social Impact of the Telephone (Cambridge, MA: The M.I.T. Press, 1977) [124-125]

<sup>9</sup> Carolyn Marvin, When Old Technologies Were New (NY: Oxford University Press, 1988) [107]

<sup>10</sup> cf. Howard Rheingold, The Virtual Community (Reading, MA: Addison-Wesley, 1993)

<sup>11</sup> NUA Internet Surveys: <http://www.nua.ie/surveys/analysis/yearinreview.html>

<sup>12</sup> *ibid.*: [http://www.nua.ie/surveys/index.cgi?f=VS&art\\_id=905354630&rel=true](http://www.nua.ie/surveys/index.cgi?f=VS&art_id=905354630&rel=true)

<sup>13</sup> *ibid.*: [http://www.nua.ie/surveys/index.cgi?f=VS&art\\_id=905354725&rel=true](http://www.nua.ie/surveys/index.cgi?f=VS&art_id=905354725&rel=true)

<sup>14</sup> *ibid.*: <http://www.intelliquest.com/press/release72.asp>

<sup>15</sup> <http://www.activmedia.com/latestnews.html>

<sup>16</sup> Benjamin Bagdikian, The Media Monopoly, (Beacon Press, Boston, 1997)

<sup>17</sup> InternetWorld Online, 31/8/98 <http://www.Internetvalley.com/intvalstat.html>

<sup>18</sup> Howard Rheingold, "Connections: Book Reviews" in the "Whole Earth Review," 22/3/92 [77]

<sup>19</sup> Subtitle of Rheingold's book. Cf. Footnote #10

<sup>20</sup> Rich Dean, an "information age specialist" interviewed on National Public Radio's "Weekend Edition" (7/3/99), indicated that his AOL mail account was unusable because of the amount of Spam mail he receives each day. <http://www.npr.org/programs/wesun/current.html>

<sup>21</sup> Benchmark Research survey, cited by NUA.

[http://www.nua.ie/surveys/index.cgi?f=VS&art\\_id=893678873&rel=true](http://www.nua.ie/surveys/index.cgi?f=VS&art_id=893678873&rel=true)

<sup>22</sup> Cyberdialogue report cited by NUA.

[http://www.nua.ie/surveys/index.cgi?f=VS&art\\_id=905354748&rel=true](http://www.nua.ie/surveys/index.cgi?f=VS&art_id=905354748&rel=true)

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<sup>23</sup> Entering the terms “pornography” and “porno” on a popular Internet search engine [Dogpile.com] in March '99 yielded a combined total of more than 790,000 “hits.” Even allowing for some duplication, there can be doubt that pornographic materials are omnipresent on the Internet.

<sup>24</sup> InterGOV International reports that child pornography crimes are the most frequent, covering 35% of all reported incidents.

[http://www.intergov.org/public\\_administration/information/latest\\_web\\_stats.html](http://www.intergov.org/public_administration/information/latest_web_stats.html)

<sup>25</sup> The Tulsa World, Oct 28 1998, reported the death of 7-year-old Sherrice Iverson at the hands of Jeremy Strohmeier in a case fueled by Internet pornography.

<sup>26</sup> <http://www.geocities.com/NapaValley/4631/>

<sup>27</sup> “The New York Times,” for instance, has begun charging for access to portions of its Web site.

<sup>28</sup> In late 1998, in time for the “holiday season” in the United States, Compaq launched an advertising campaign with a fairly explicit fear appeal to parents; it insinuated that children without Internet access were at a real educational disadvantage.

<sup>29</sup>

<sup>30</sup> Cf. <http://www.fraud.org/news/news.htm>

<sup>31</sup> cf. [http://www.nua.ie/surveys/index.cgi?f=VS&art\\_id=892650598&rel=true](http://www.nua.ie/surveys/index.cgi?f=VS&art_id=892650598&rel=true)

<sup>32</sup> InterGOV International:

[http://www.intergov.org/public\\_administration/information/latest\\_web\\_stats.html](http://www.intergov.org/public_administration/information/latest_web_stats.html)

<sup>33</sup> Panos Briefing No. 28 April 1998, The Internet and Poverty

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<sup>37</sup> <http://www.roper.inter.net/news/content/news86.htm>