

Prepared for the World Forum on Information Society
8-9 December 2003 in Geneva, Switzerland
Organized as a parallel event to the
World Summit on Information Society (WSIS) by the
International Research Foundation for Development (IRFD)

INTERNET: Closing or Widening the Divide?

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Abstract

The arrival of the so-called information society—and with its recent ‘leap of faith’ in the Internet revolution—has brought about great strides in wealth creation, in linking distant cultures. The IT revolution has caused time and space to shrink, and borders to disappear. In other words, the technology has made the world far richer and much smaller. Yet, despite (or perhaps because of) such unprecedented technological advances we see widening inequalities between and within nations and societies alongside vast improvements in human condition overall. Now the disparities express in a new dimension—in the so-called Internet divide. Rich and poor countries want to bring the Internet to the poor or the poor to the Internet, if you like. Poor countries have been trying hard to close this technology gap through access and transfer, and in the process, they have run smack into the Internet’s formidable hierarchy of access that only further widens and deepens the rich-poor divide. The owners of technology have only been too willing to sell even to the farthest communities barely reached by electricity. But since the technology could be had only at a very high price the poor countries are able to have access at the cost of mortgaging their export earnings and migrant labor, even their natural capital. A mobile cell phone could cost a Filipino farmer several harvest cycles in his one-hectare rice farm. Every expansion of the new economy means more sales of hardware, software, connectivity, consultancy, and other ICT services. The balance at the end of the line is net outflow for the poor. In the new context of information economy, it’s the same old game of catch-up all over again. The gap has not narrowed down a tiny bit though the poor is now somewhat Internet-connected.



Introduction

The Internet divide is a derivative of the technology-divide debate. The technology-divide debate is an old one, dating back to the early stages of post-war development, perhaps even as early as when international relations began to be marred by imbalances resulting in frictions in the international community. The Internet-divide debate expresses a fairly recent concern over the growing disparities between and within nations and how these disparities could be bridged to bring about more fairness and greater human security in this troubled world.

The debate gained much stronger resonance during the cycle of UN summits and summit follow-ups and as international disparities continued to weigh down on the poor and further exclude them. The rich-poor divide has been a running theme in all these international events, beginning from the 1992 Earth Summit in Rio through ten years after at the World Summit on Sustainable Development (WSSD) in 2002 in Johannesburg. The World Summit on Information Society (WSIS) in December 2003 in Geneva has helped hype the debate even more.

The Agenda 21 and related agreements coming out of the Rio process, such as the two framework conventions on climate change and biodiversity, and the statement on forest principles, were meant to address fairness in a fragile world. And so were the other commitments in subsequent UN conferences. The Millennium Summit of September 2000 bundled up the UN commitments into eight Millennium Development Goals (MDGs). The eighth goal—global cooperation—is necessary if any progress is to be made in the achievement of all the other seven goals.

All these add up to a 'global compact' to address the rich-poor divide. This 'global compact' suggests common and differentiated responsibilities for both the industrialized and developing countries. In other words, the rich must undergo deep cuts in their lifestyles to free up the necessary resources that would allow the poor to grow and develop. Deep cuts means huge reduction in CO2 emissions—CO2 emissions levels as a physical measure, or a metaphor, if you will, of inequalities on this planet. Sharing translates in debt relief, fairer trade terms, increase in development assistance, and not least among them, the transfer of needed poor-friendly and environmentally-friendly technology, including the Internet technology.

The world has not gone far enough in that 'global compact'. The anticipated debt relief, improvement in terms of trade, increased flows,



and technology transfer have not materialized. Worse, what we have seen in the past decade is mounting evidence indicating retrogression rather than progress. Instead of a more equal world we now have an even more divided world, gripped by deepening poverty, war, terror, social and environmental conflicts, continuous environmental decline.

The entry of the Internet into the discourse has only sharpened the equality debate even more.

In this paper I will try to argue that while the Internet has revolutionized the information and communications technology (ICT) and opened many possibilities for all of us—rich and poor alike—the evidence seems to point to a widening rather than a narrowing down of the rich-poor divide.

The Internet world, wired and wireless

The world is now hooked to the Internet, so to say. It's a world modernized by an international web of fiber-optic links, undersea cables, powerful routing and switching computers, mobile phone base stations, and a plethora of telephones, computers and other devices, both wired and wireless.

A survey of telecoms October 11th 2003 by The Economist, citing the International Telecommunications Union (ITU), notes that the revenues generated by this industry have steadily increased to reach an all-time high of \$1.37 trillion in 2003. There are now 1.2 billion fixed telephone lines, and 1.3 billion people carry mobile phones of decreasing size and increasing complexity. Around 665 million people now have access to the Internet. Consumer spending on communications is growing faster than spending in any other category.

The so-called third-generation (3G) technologies have promised to stretch the limits of communications further. These are technologies that are able to support higher voice capacity and faster data downloads than existing second-generation (2G) networks. The generational categorization is best typified by the development in the phone industry, a fascinating story vividly told in the *State of the World 2003*.

First there were only fixed lines and only voices passed through this traffic. Next came the wireless and mobile transmitting both voice and text. And now you have a tiny piece that can do almost anything, as it were. The most advanced mobile phones are tiny, lightweight devices



that run up to a week between battery charges. They are like pocket computers that feature still and video cameras, color screens, Internet access, games, among other fancy things.

In communications history 1969 marked the first connection in what later would become the Internet—the marrying of the computer to the communications network. In 1971 the microprocessor was invented and then Ray Tomlinson wrote the first e-mail program. In 1990 Tim Berners-Lee at the European Laboratory for Particle Physics (CERN) created the first World Wide Web server. In 1993 we saw the development of the first graphical Internet browser.

It has been a long way from when humans started writing 4000 years ago. In the 15th century the invention of the printing press by Johann Gutenberg broke the elite monopoly of information and brought information to the masses. The next wave of information revolution came in the 19th century with the use of electrical current and electromagnetic spectrum to transmit information instantly over great distances. Samuel Morse invented the electric telegraph in 1844. Not long after, a network of cables was built to link the United Kingdom, the United States, Australia, India, and other points in Asia. Time shrunk as never before seen in history, with the telegraph shortening to only four minutes what used to take 10 weeks to send messages from London to Bombay and back. Building on the telegraph, subsequent innovations such as telephones, radio, television, and communications satellite further broke down the barriers of distance in communications.

The current digital revolution marks the third wave of technological change in communications. For a long time telephone and television networks have been transmitting sound and picture through analog waves. Today, different forms of information -text, sound, picture and video—are transmitted digitally as compressed bits in the binary language of computers. Digitization is fast becoming the wave of the industry spanning telephone, photography, remote sensing, broadcasting, film, music, finance and other services, even manufacturing. The lines that separate telecommunications from computers, information processing, publishing, recording, and entertainment have virtually disappeared.

Internet for the poor?

The poor must first be connected to enjoy the promised benefits of the Internet.



The Net, as the Internet is sometimes called, takes us to a complex web of computer networks cast around the world. Through this network flows a traffic of resources which include text files and non-text files like 3D graphics, images, sound, video and other multimedia files. And through the World Wide Web (WWW), or simply the Web, we are treated to a menu of services available on the Internet. The Web allows a computer user from one end of the world to access resources from computers on the other end.

But access to the Internet hi-way and the resources trafficked through it is governed by a complex set of property rights and protocols or set of rules. One can free ride but somebody else is surely paying the cost.

Cyberspace may be floating in invisible space but it cannot exist without being grounded in some tangible hardware somewhere on this planet. And that hardware as well as the software and services necessary for the Internet to work for you and me are now largely in private hands.

Ownership and control of natural monopolies, like power utilities, are fast slipping into the hands of big private firms, though these infrastructures were built with public funding. You need power to run the Internet.

The corporations own the hardware and service infrastructures. They own and control the communication lines, routers and servers, service providers, search engines and portals. They assign IP network addresses necessary to run the TCP/IP protocol that defines who is included in the Internet. They control the domain name system (DNS)—e.g., .com, .org, .net—which is important to acquire a personality in cyberspace. They control the technical standards—communication protocols, packet formats, mail and document formats, sound and video formats, and other standards that govern the Internet.

In short, they who control the means of access decide who's in and who's out.

Yet the poor need only to get hold of a mobile phone to be in. With a cellular phone one can start 'texting,' technically known as text messaging or short message system (SMS). Texting is said to be the poor man's Internet. Texting, whether through ordinary or state-of-the-art mobile phones, is now commonplace. More than one billion text messages are now sent everyday around the world, at an average cost of about 10 cents, adding up to a huge industry that generates \$40 billion a year, says The Economist survey on telecoms.



The mobile phone has become the most popular communications device on earth. Now numbering about 1.3 billion, some 450 million handsets are expected to be added yearly. Worldwide, one of five persons has a mobile phone and in parts of Europe and Asia where mobile phones are most popular around 80 percent of the population—or pretty well everyone between the ages of 10 and 80—carries one. In China, there are now 200 million users—more than in any other country—and the number is growing at the rate of 5 million a month.

The information revolution may be reaching a growing number of people but it has a long way to go to reach the majority of the world's population, according to the *State of the World 2000*. The 23 industrial countries home to only 15 percent of the world's people account for 62 percent of all phone lines. Some 84 percent of mobile phone subscribers and more than 90 percent of Internet users live in industrial countries.

Wide disparities exist among poor countries. Investment in telecommunications is cornered by 30 emerging economies. Growth in phone connections per 100 people in developing countries jumped from two to six between 1985 and 1997, but the gains were focused mainly in parts of Latin America and East Asia. An outstanding example of this lopsided distribution is Buenos Aires. This capital city of only about 6 million, has twice as many links to the fixed-line telephone network as does all of Eastern Africa, which is home to nearly 250 million. Variations within nations are often just as great, with urbanites better connected than rural dwellers. In the United States, for instance, people in urban areas are more than twice as likely to have Internet access as those earning the same income in rural areas.

Wireless technologies are supposed to be able to narrow the gap. They can be used even if electricity has not yet reached every household and get every one connected to a telephone line.

Internet for the environment?

Images of the earth, good or bad, get communicated far and wide and quickly through the Internet. Through the Internet people get agitated, educated and inspired to do something about the environment.

A former staff of the Philippine Rural Reconstruction Movement (PRRM), in her doctoral dissertation *Platforms and Terraces*, describes the story of how she turned the computer into a useful tool for the Ifugaos (a group of indigenous peoples in the world-famed rice terraces of the



Philippines) in understanding their environment. Her exploration hit upon the workability and merit of interactive participation of the poor in the use of the geographic information system (GIS) beyond the usual 'providing information' and way-finding. Through 'spatial dialogue' Ifugao farmers participated in interpreting aerial-photographs and satellite images, in mapping their situations and aspirations into meaningful diagrams, and in tracing together their successful past.

In January 2003 the Gund Institute on Ecological Economics of the University of Vermont and the Asia Pacific Exchange, together with their Philippine NGO partners, demonstrated how computer could help facilitate learning ecological economics in action. The group—a mix of professors, students, environmental activists—applied theory and computer-based knowledge to an actual mangrove ecosystem in the island province of Palawan in the Philippines.

It was a fascinating learning experience. Participants were shown how with the help of computer people could analyze the differential impacts of non-conversion, semi-intensive and intensive shrimp aquaculture on the mangrove ecosystem and on people's livelihoods. After collected data were inputted the computer came out with graphic images to show what's happening and the possible options available to the local government and the local community. The learning process involved theoretical discussion, field research, mobilization of affected fishing community, dialogue with the mayor and local officials, and finally, a local media event. Results were also communicated to the national media through the Internet.

There are many other ways by which the use of information tools may benefit the environment. Data can substitute for materials and energy, thereby reducing throughput. Electronic mail enables communication to substitute for transportation. Computer-generated maps with pollution data available on the Web help people monitor pollution levels. Satellite sensors give us clearer and more graphic images of what's happening to the environment. Forest fires in Sarawak or California are captured in computer images and communicated around the world. So is the ozone depletion or the shrinking of the Aral Sea or the rise in sea level. Researchers are enabled by computers to plot and analyze environmental scenarios, from urban degradation to loss of biodiversity worldwide.

Computer technologies can be a tool for advocating sustainable development. They have made environmental networking much easier. Easy access to environmental data facilitate the work of researchers and activists.



Since the 1992 Earth Summit in Rio, environmental NGOs have been responding to environmental issues and concerns and running campaigns much more quickly and effectively than before the arrival of the Internet. Various global networks set up by NGOs, the UN agencies, and research and academic institutions, among others, are now in place serving a range of information and campaign needs.

But just like any other hard wares, telecommunication technologies cannot escape a 'cradle to grave' assessment. At every point throughout their 'lives,' computers, satellites, televisions, and other communications instruments take a toll on Earth's resources. When produced, they deplete the natural resource base, when disposed they pollute the environment. But while their effects on the environment at 'birth and death'-may not be hard to quantify their net environmental effect during their useful lives is much harder to evaluate. Trade-offs may just be too much for the environment to bear.

Production of computers requires energy and water. The production of silicon semiconductors that form computer 'chips' is particularly energy- and water-intensive. A single large semiconductor manufacturing plant, producing 5,000 eight-inch wafers a week could use as much electrical power and water as a small city.

Manufacturing computers and televisions also generates waste, much of it toxic and hazardous. Toxic solvents, acids, and heavy metals are used in the manufacture of semiconductors, printed wiring boards, and cathode ray tubes for computer monitors and television screens. In 1993, the Microelectronics and Computer Technology Corporation analyzed the waste created in manufacturing a typical computer workstation. Its study suggests that 63 kilograms of waste, 22 of them toxic, are generated in producing a 25-kilogram computer. The case was cited in the *State of the World 2000*.

Has the Internet lived up to its promise of a "paperless" world? Not yet, maybe never. It's such a huge promise that may never be kept. There's no stopping people from asking for hardcopy.

Has the Internet reduced travel, especially by air, which consumes so much energy and leaves so much ecological footprints? The evidence, according to the *State of the World 2000*, indicates that "no communications technology in history has ever been associated with a net reduction in travel."



Techno hype and bubble

Who gained? Who lost? What's the story?

When I think of the Internet technology the word that instantly comes out is spectacular. The Internet's rise to fame worldwide was nothing short of spectacular and its fall two years ago was equally spectacular.

The rise and fall of the Internet technology follows the same storyline as any financial bubble. And underlying it is the same dynamic running through the money game where money creates wealth simply by creating debt and bidding up share values. Repeating such transactions many times over increases the abstraction of money from the real economy, of say, housing construction or manufacturing computers. Money itself is already a derivative from reality, to begin with. Following much hyping and overvaluation, a boom is created, more money flows, stocks soar, more investment (in the wrong place) and more production (even when not demanded) till capacity is exceeded, then one day comes some trigger and there it goes...bubble just bursts.

It almost always begins with a hype that soon develops into a mania. Sometime in the late 1980s then senator and now ex-US Vice President Al Gore made a euphoric claim that the Internet was bringing about a brave new world replete with an "electronic agora" and "online democracy." You heard that line repeated during the 1992 Earth Summit in Rio.

The International Telecommunications Union (ITU) played a role in the hype, according to The Economist survey. A portion of an ITU document dated October 2000, extracted by the Economist goes, as follows: "The 3G device will function as a phone, a computer, a television, a pager, a videoconferencing center, a newspaper, a diary and even a credit card...it will support not only voice communications but also real-time video and full-scale multimedia.... It will also function as a portable address book and agenda, containing all the information about meetings and contacts...It will automatically search the internet for relevant news and information on pre-selected subjects, book your next holiday for you online and download a bedtime story for your child, complete with moving pictures. It will even be able to pay for goods when you shop via wireless electronic fund transfer. In short, the new mobile handset will become the single, indispensable "life tool", carried everywhere by everyone, just like a wallet or purse is today."



The lords of cyberspace make mind-boggling promises: virtual communities, virtual learning, virtual democracy, virtual revolutions, virtual sex, virtual this, virtual that. This is the Internet world—much of it a virtual reality.

The mania that accompanied the rise of the Internet talked about an explosion of demand for data-network backbone capacity to pipe Internet traffic across continents. Investors bought in to this and pumped in money. True enough the Internet traffic has roughly doubled every year since 1997, according to the survey of *The Economist*. Much of the industry, however, was convinced that traffic was doubling every 100 days. Hence, the need for more capacity and more capital. The survey noted that this widely quoted statistic, which originated at WorldCom, became an essential ingredient of business plans and conference presentations during the bubble. More, that rosy figure seemed highly reliable as it appeared in a report published by the US Department of Commerce in April 1998. Dozens of firms rushed to build new fiber-optic networks in America, Europe and Asia. But apart from a brief period in 1995-96, the survey concluded, the number was simply wrong.

Since its collapse two years ago the industry has become notorious for fraud, bankruptcy, debt and destruction of shareholder value. Nobody knows exactly how much money has gone down the telecoms drain, but many estimates hover around the \$1 trillion mark. Dozens of firms have gone bankrupt, including Global Crossing, 360networks, Williams Communications, Viatel and WorldCom, whose bankruptcy last year was the biggest ever.

Hundreds of thousands of workers in the industry, and particularly at telecoms-equipment makers, have lost their jobs. And there are not many bright prospects for them in light of what's now described as 'jobless recovery' in the US economy.

How could an industry go bust amid strong demand, growing traffic and record revenues? The industry has continued to grow, alright, but it has been growing in the wrong side. Telecoms is infrastructure-intensive, and infrastructure takes a long time to build. Telecoms firms speculated and made huge bets. But they got it wrong. The level and nature of future demand they anticipated failed to materialize. As the survey put it, the bets made during the technology bubble of the late 1990s were spectacularly way off the mark.

The Wireless Access Protocol (WAP) is illustrative of the manic syndrome. Hyped as the mobile version of the Internet, the WAP was introduced



worldwide in 1999 but turned out to be a big letdown. Connecting on a WAP phone and downloading from it took so long. Limited content and tiny screens add to the users' frustrations.

The industry has stubbornly persisted in promoting technologies rather than creating useful services with those technologies. In 2000, this obsession with fancy technology caused Europe's mobile- phone industry to get carried away in the bidding of licenses to operate third generation (3G) mobile networks, which can support higher voice capacity and faster data downloads than existing 2G networks. European networks agreed to pay a total of EUR109 billion (\$125 billion) for 3G licenses. They took a huge pile of debts.

Money flows where there's already so much money. Billions were spent building new and unnecessary telecoms networks when in fact demand in data traffic could be handled by existing ones. One estimate put it at \$150 billion in America and another \$50 billion in other parts of the world, says Andrew Odlyzko, a telecoms guru at the University of Minnesota. The amount of fibre in the ground increased five times in four years since 1998. Meanwhile, advances in the technology of feeding signals into fibres at one end and extracting them at the other increased the transmission capacity of each strand of fiber 100-fold, so total transmission capacity increased 500-fold. But over the same period demand for transmission capacity merely quadrupled, a rise that could easily be accommodated by existing networks.

Ironically, much of the world's countryside has yet to enjoy an electric bulb.

Panic set in when the predicted explosion of demand didn't happen. Telecoms operators cut their prices, hoping to fill their empty pipelines. Equipment-makers' sales collapsed and their share prices tumbled. Nortel, a once high-flying maker of telecoms gear saw its market capitalization fall from around \$400 billion in the summer of 2000 to just \$3 billion two years later.

Now comes payback time. Some firms began massaging their accounts to conceal losses and the lack of earnings. Companies such as Global Crossing and Qwest resorted to "hollow swaps" and other dubious tricks to boost sales and traffic figures. The case of WorldCom is one for the books, for its record corporate corruption and in its spectacular crash. Worldcom set a new record for accounting fraud, misclassifying capital expenditure as operating costs and overstating profits by \$11 billion.



The telecoms boom and bust has been littered with huge scandals. It has produced many crooks and instant millionaires, many of whom went scot-free while some are now standing court trials for unprecedented corporate corruption. Millions of losers suddenly found themselves holding worthless papers. In an instant, millions were thrown out of their jobs as tech firms crashed one after another.

The corporate bosses are having a rotten time with public confidence, but not with their pay. Even though they now rate only slightly better than used-car salesmen in public opinion polls, according to The Economist, they are still rewarded with fat compensation on their way out as if nothing happened.

The IT collapse was a humbling experience for those who hyped it to high heavens. Now corruption is no longer a monopoly of government. Corporate governance or corporate social responsibility is itself now on the chopping block.

It's not all gloom and doom, though, so they say. There are post-bubble opportunities for investors, as indicated by the steady rise of mobile phones. Mobiles have overtaken fixed-line phones to become the most widespread communications devices on earth. The survey of The Economist predicted their number will rise from 1.3 billion today to 2 billion by 2007. Mobile phones are used to do much more than make phone calls, providing new opportunities for wireless operators and equipment makers.

There is also the high-speed or broadband internet access now booming in many parts of the world. This offers valuable new market for fixed-line operators, once they have supercharged their existing telephone networks to make them broadband-capable.

As large firms look for ways to cut costs and move operations overseas, many are adopting new internet-based technologies to allow voice and data to flow over the same network. These complex networks are now being simplified and retrofitted to accommodate "next-generation services".

Sustaining the mobile-telephone industry depends on being able to deliver multimedia services. But creating and delivering multimedia services to mobile handsets is complicated. Similarly, fixed-line operators offering broadband internet connections are having to work harder to provide both data and voice services than voice services alone. And there's the emerging challenge of overlap between telecoms and information technology (IT). To be able to offer next-generation services



such as internet hosting or call-center outsourcing, network operators must enhance their IT capability or leverage what they have through partnerships.

Access and property rights

UN Secretary-General Kofi Anan, in a speech at Telecom 99 in Geneva in October 1999, warned of the danger of exclusion of the world's poor from the information revolution. He said, "People lack many things: jobs, shelter, food, health care and drinkable water. Today, being cut off from basic telecommunications services is a hardship almost as acute as these other deprivations, and may indeed reduce the chances of finding remedies to them."

Access to information is a basic human right. This includes the right to exchange information freely. Roberto Verzola, a Filipino scholar-activist and founding secretary-general of the Philippine Greens and author of *Towards a Political Economy of Information* said that the Internet was originally conceived with a view to democratizing information. He said, "The Internet, for instance, began with a culture of freely sharing information. It is this culture which enabled it (the Internet) to spread into many countries, which were attracted by the availability of so much freely accessible information." Despite the increasing property barriers to access, he would still assert that "there is a very strong culture of free sharing on the Internet."

Information is and should be a public good. My having it does not exclude your right to have it. As a rule, my use of an information does not diminish its value, its value in fact increases with usage, especially when a user creates a new knowledge out of it. "Information goods have a special quality," according to Verzola, "They don't wear out. They are not used up. One can give them away without losing them. Information is non-material. Electronic information is easily copied, and it doesn't cost much to copy." I should add that information should free us from the tyranny of labor and enable us to enjoy longer leisure hours.

But while information is supposed to be free and, by nature, predisposed to free sharing, the so-called information highway is not. So are the means—the computer hardware and software—to enjoying the journey. Entry and use of the information hi-way come by with a toll, and usually a huge one for the poor to afford.



"Internet technology is very expensive: the hardware is expensive; the commercial software is expensive, connectivity is expensive; consultancy and other services are expensive," according to Verzola. He cited the Philippines, for instance, where "the cost of entry-level computer hardware has remained pegged somewhere around US\$500 since desktop computing was introduced in the early 1980s. Users used to copy software freely, but strict IPR regimes mandated by the WTO have raised software costs to the level of hardware costs, and often higher. A dedicated 24-hour connection needed by a network of Internet servers requires a minimum monthly expenditure of around US\$300 for port costs alone to more than US\$1,000 if leased line costs are included. One-time costs include the server, modems, routers, terminal servers, uninterruptible power supplies and miscellaneous equipment. Consultants, trainers and Web designers charge what the market will bear".

The domination of the global economy by the US is based on its control of the information society. The US dominates the production, processing, and selling of information which is the leading growth industry in the world. More than agriculture and manufacturing whose revenue shares have been comparatively declining, the US has early on realized that manipulation and packaging of ideas and data is where huge profits can be made. Ownership by the US of most of the copyrights and patents in the world enables it to monopolize profits from the information society.

Despite their poverty rhetoric the US, and the rest of the developed world, too, are not about to give up on their dominant position and control of the information society. Rich countries, despite their commitment in the TRIPS agreement of the WTO, have taken no real steps to share their technology in the interests of reducing poverty, according to the Human Development Report 2003.

Internet in the Philippines

In the Philippines, texting is the internet of both the poor and non-poor. Filipinos exchange 100 million text messages everyday, as reported in a Manila daily. Cellular phones have made it all happen, although electricity-for-all remains a distant dream for majority of Filipino households.

The *Human Development Report 2003* noted a fast growing teledensity (number of phones per 1,000 people) in the Philippines, although this country still lags far behind the developed countries. In 2001, 42 of



1,000 Filipinos were connected to the mainlines, up from 10 in 1990. The United States had 667 in 2001 and 547 in 1990. There were 150 Filipino cellular phone subscribers in 2001 and none in 1990. In the US there were 451 in 2001 and 22 in 1990. There were about 26 Filipinos Internet users in 2001 and none on record in 1990. In the US there are 502 Internet users in 2001 and eight in 1990.

The mobile phone penetration in the Philippines is spectacular. Subscriber growth rate reached up to nearly 40 percent in June 2003, according to The Economist survey.

Mobile phones are some sort of a status symbol. They are a most desired piece of acquisition to those who have yet to contribute to the family wages—the children and youth. It is no surprise that a sizeable chunk of the hard-earned money of overseas Filipino workers (OFWs) goes to the purchase of this modern symbol of prosperity. Total remittances of OFWs come up to about US\$ 6-7 billion annually. This is a major financing source for our import bills and debt service which is about 30 percent of the national budget.

The mobile phones come in handy for all sorts of uses—personal, professional, social, business, political. They are used even for what moralists would consider dirty, like 'phone sex' or 'text sex'. It is not strange anymore to see a farmer in the field with a mobile phone of the latest model glued to his ear or sending text messages in the middle of nowhere. Filipinos use mobile phones to call or text relatives, friends, colleagues, other people in-country or abroad. They text quietly, sometimes obtrusively, even when only within touching distance of each other during meetings and conferences. They also use text to trigger and hype a revolution, so some people claim extravagantly.

The Pulse Asia survey during the first quarter of 2003 shows that 34 percent of Filipinos use a cellular phone, while 66 percent do not. Cellphone use is higher in urban areas (48 percent) than in rural areas (19 percent), the highest being in Metro Manila (51 percent), as expected.

Cellphone use varies across classes: 63 percent for the upper Class ABC; 34 percent for Class D; and 17 percent for Class E. It also increases with the level of education, 64 percent of users with at least some college education. Majority of users are in the 18-24 age bracket.

Ninety four (94) percent of cellphone users say they send text messages. Seven in 10 texters (73 percent) send between one and 10 text



messages each day, 13 percent send more than 20. When asked who they often send messages to, 65 percent say they send these to friends, 38 percent say to relatives, 36 percent say to romantic partners, and 32 percent to brothers and sisters. Twenty three percent of respondents often send text messages to officemates, another 23 percent to their parents, and 11 percent to their children.

As to what text messages they send, 57 percent of Filipino texters say they often send news on family or relatives, 52 percent often send greetings, 31 percent jokes, and only 25 percent work or school-related news. Inspirational text messages account for 23 percent, followed by other kinds of information (18 percent), forwarded or chain messages (12 percent), graphics, logos or ringtones (9 percent). Five percent of the respondents send courtship text messages and 5 percent participate in text games or raffles.

The cellphone is the closest link of Filipinos to the Internet. Yet considering the class origin of cellphone users, how and what they use this fashionable communications tool for, can this 'Internet-connection' be said to be a factor for closing or widening the divide?

This modern wireless gadget does help bridge distance and can substitute for travel. With it, overseas Filipinos are able to stay in touch with their relatives back home. If you're a buyer or seller, the mobile comes in handy for monitoring prices at different places in real time. With the latest model equipped with multimedia capacity, you could do a number of fascinating things, from texting to taking pictures to sending an e-mail. The flipside of all these tends to be alienating and excluding, especially to the poor.

The cheapest cellphone costs less than US\$100, the latest model with multimedia services could cost more than US\$600. A one-hectare rice farm, averaging 80 fifty-kilo sacks or 4 metric tons every cycle of three to four months would give an owner-cultivator a net income of US\$200, more or less.

A local text message costs one peso or about 5 cents. So for the 100 million text messages that Filipinos send a day telecoms firms earn 100 million pesos or around US\$ 1.8 to US\$2 million everyday.

Computers of whatever kind—desktop or laptop—are not easily accessible to ordinary Filipinos, much less the poor among them. However, the use of computer in school, both public and private, has somehow democratized access to this modern form of communication.



Computer education in the Philippines starts at home and is formally introduced at the pre-school or prep level, particularly in private schools.

The Internet is the domain of the non-poor. Surely, not every one of the 26 out of 1000 Filipino Internet users recorded in 2001 could be considered rich. But their access to the Internet becomes possible only because someone with money gets connected and makes the connection accessible to users, regardless of class.

Entry to the Internet world is cost-prohibitive. Set-up costs are high, although once you're in, Internet use itself is relatively and marginally inexpensive.

One needs to be computer or Internet-literate to enter the network and this comes with a cost. Although basic computer skills are fairly easy and cheap to acquire a high-level computer education in the Philippines is not. The mounting costs of education in the Philippines, whether preschool or college, are excluding more and more people and limiting the possibilities for the poor.

Internet users live in a different world, certainly not the world the poor would find very hospitable.



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