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Introduction

In this article we explore some of the comparative national impacts caused by education and technology. We argue that the impacts are largely dependent on the affluence or poverty in the country. We also question whether all contemporary technology is beneficial. In particular, we challenge the contribution made by some of the materials on the Internet.

The situation in the developed world

Access to information is assumed to be a means of providing tools (intellectual, emotional and commercial) that allow people to pursue successful lives in their societies. At least, this is the prevailing assumption about information in what is referred to as the developed world. Prominent among the new technological tools are computers and their great accomplice, the Internet, the home of the WWW. This is a cyberspace containing more information than has ever been accessible in the past. We acknowledge that the Web is a "space" of freedom, with new forms of communication, and therefore it has the potential to be a source of progress and welfare. It is very simple for someone with access to the net to write e-mails and search for an incredible number of different subjects. In our personal circumstance, when we are travelling, we normally use the Net to read newspapers from Brazil and Portugal. Sometimes we will browse the "Cnnportugues.com", and we find, for instance, that these sites have much more information on weather than the Portuguese TV stations. For people familiar with the Net, none of this comes as a surprise, but it does support the claim that school education should have a component of technological training. Every boy and girl of the future will be disadvantaged if they do not understand and have access to information technology. It has been evident for some time that access to information is one of the major sources of advantage. This is true across the globe. In countries

such as the fifteen member nations of the European Union, the United States, Canada, New Zealand and Australia, as well as several Asian nations, students are taught from an early age how to be able to use computers and integrate their usage into their academic and everyday life. This also implies an acceptance by the developed countries that technology will continue to be an important part of society. There is a price but the general agreement is that technology can be useful. The humane and caring questions about technology are not so much about its utility, but much more about the gap created between those who have access to technology and the others. The others are usually found in what is referred to, in a sometimes paternalistic way, as the "developing world". The developing world is only just developing, as opposed to being developed, because it lags behind the wealthier nations. Absence of technology is often cited as evidence of lagging behind. In the so-called "developed world, there is a recent debate involving the ability of communications technology to generate both "reality" and "virtual reality". This is notable in a world where television sitcoms, extreme visuals used in advertising by companies such as Benneton, or reality generated by various types of radio programs, are often more powerful in the building of a "fake reality" than the reality in which most people in the developed world live. For example, many people regularly join the t.v. world of "Sienfeld" in preference to their own world. The same can be said of many socially contrived t.v. shows which cause people to identify with the contrivance. An altered consciousness created by visual and aural stimuli is a luxury found regularly in the developed world and the use of one or another type of technology is the usual cause. The growing importance of unreality, or virtual reality, should be included in contemporary education. Even if it is only for entertainment, knowing how to use technology needs to be complemented by an understanding of it. Today, television is probably the most intrusive form of "information" technology and it sometimes fails in its responsibilities. For example, sometimes "reality television" has programs, such as quiz shows, where human dignity is treated rather lightly. People who are motivated by greed compete with others in pursuit of personal gain while being a public spectacle. This may be a harsh assessment, yet it is generally agreed that television is not usually intended for higher intellectual functions. It is possible to conceive of television as "the circus that includes all circuses". Television offers sex, mud wrestling, international sporting competitions, political speeches, even first-hand coverage of wars almost anywhere in the world. Of course, the incredible advantage that television has over some other media, is that it goes into our homes without us being

involved in the programming. The same is also true of radio, but it is not so intrusive and demanding. With television one has to look as well as listen. Television, radio and computers, along with a large contingent of other electronic gadgets, are accessible to practically everyone in the developed world. With their enormous potential, one may ask if there is any evidence that shows that the "technological society" is fairer and more democratic. Of course, this may be asking too much. These sorts of matters are not part of the job description for technology. The first problem with a societal direction improved by greater use of technology is the need for continuous information on the use of technological tools. For instance, computer software is changing all the time, and large sections of society do not have access to this sort of specialised education. Even the knowledge of the requirements for new hardware is important, as new software is getting "hungrier", much faster than "old" ones, bigger hard drives and much more RAM. The public in general is forced to get new equipment in order to keep up to date with the demands of today. We may ask if all the changes in software and hardware are really needed by the average users, or if those who sell computer products simply create need in the minds of the users. In the developed world where most people have discretionary funds, this is a strong possibility. Those who sell the products need repeat customers. Technology, and all the faces it can pull, is, after all, a commodity for sale.

Some social challenges

After the French Revolution, Europeans began migrating from the countryside to the cities, changing old ways of life, including family relationships. With the Industrial Revolutions and the two World Wars, the roles of women have changed, along with changing legal codes, moral attitudes and political or religious views. Humankind is changing in unforeseeable ways all over the planet, and has given rise to new problems. Beck (1992) calls this "reflexive modernity", meaning that unforeseen consequences sometimes arise from past actions. One of these consequences is the growing gap in information access among citizens in the same country and among different countries. This gap is the result of access and usage of technology. Will those developing countries without even the capacity to improve the literacy levels of their people be able to equip them to exist in a computer environment?

"Cyberspace is already a machine of confusion, contradictory information, and control." (Gur-Ze'Ev, 2000). The Web is a place where we can find useful information about diseases, travel, scientific matters, but also where we find porno sites, senseless

ego displays, and increasing political propaganda. More recently, the Web has been recognized for its commercial potential. Soon, everything that can be sold will be sold on dot.com space. In the present World, we have no reason to believe that new technologies may be used in the same way globally. The United Nations' Food and Agriculture Organization, in its report of 15th September 2000, claims there are 800 million human beings needing urgent help against starvation. Obviously, survival is more important for them than raising the technology levels. Complementing the FAO report is another from the World Bank claiming that "almost half of the world's population, or 2,8 billion people, are living with one or two U.S. dollars per day and one in five lives with 1 USD a day."

According to this report, the gap between wealthy and poor countries is growing, with the GDP average in the twenty richest countries being 37 times greater than the GDP average in the poorest twenty countries. The World Bank defines "to be poor" as to have low wages, lack of jobs, low consumption standards, no means to express ideas, and to live in fear, as well as having no food, education and health. This definition of poverty which applies to many of the developing countries, is not based solely on monetary criteria. In fact, added to the World Bank's criteria for poverty could very well be a lack of access to some forms of basic technology. However, the reality is that in countries without adequate food, clean water, electricity or hospitals, everyday assumptions in the developed world, such as telephones, just do not exist, or are unavailable to the majority of the people. According to the Report on Human Development (UNDP, 1999), prepared for the United Nations Development Program, "globalization is compressing space and time and abolishing borders". But globalization is also "increasing human lack of safety, as world crime, disease and finance volatility are overtaking the actions to fight them".

In this report we can read that "the countries of OECD (Organization for Economical Cooperation and Development) representing 19% of the world's population, have 71% of the world's goods and services, 58% of direct foreign investment and 91% of Internet users." The staggering facts to come from this are that, in the 1990's, 20% of the population living in the richer countries had 86% of the world's production of all kinds of goods, 82% of the international export markets, 74% of the telephone lines." Topping all of these inequities is that "the wealth of the 3 richest billionaires is greater than the GDP of all the less developed countries and they have more money than the 600 million people living in those countries." (PNUD, 1999,3)

Other interesting facts about the distribution of technology are that "Thailand has more mobile phones than Africa"; "30% of Internet users in the world have at least a university degree"; "English is used in almost 80% of Web pages, even though It Is spoken by only one person in ten on the planet". (PNUD, 1999,6)

It is not difficult to draw conclusions about the advantages that the developed world gains from it's association with technology.

Conclusions

If we analyze the statistics from the United Nations' Development Program Report (1999) concerning health, education, nutrition, poverty, women's situation, children, environment and human safety, we get this general description:

"From 1990 to 1997, the number of infected persons with HIV changed from less than 15 million to more than 33 million people; around 1,5 billion people will not reach 60 years of age; in 1997 more than 850 million adults were illiterate; in the industrialized countries more than 100 million people were "functional illiterates"; about 840 million people suffered from malnutrition; around 340 million women will die before the age of 40; between a quarter to half of the women's population suffered physical abuse; more than 250 million children are working; every year about 3 million people die due to air pollution, and more than 5 million die due to consumption of contaminated water; by the end of 1997 there were 12 million refugees in the world". (PNUD, 1999, 22) While these statistics are not directly linked to technology, they do indicate the sad state of much of the world and privileged placement and use of technology will serve to exacerbate the situation in much of the developing world.

We believe that individuals cannot change the global situation by themselves. Citizens from all countries, and having all kind of jobs are the target of powerful means of persuasion, like advertising or different kinds of propaganda. We are incapable of avoiding the effects of advertising or other propaganda that are used to manipulate opinion.

We live in a World where people are more and more linked together, but often we don't know who is deciding what, and where decisions are taken by big corporations, many times in contradictory directions. "In 1998 the 10 biggest communication companies controlled 86% of the market." (PNUD, 1999,6) This represents the ability to control most people's opinions by shaping

them with selected information through the mass communications media.

The use of modern technologies, particularly the usage of computers and Internet must be encouraged, and this requires the training of more and more people in the use of new technologies, enabling them to understand at least the fundamental procedures of working with software and hardware. Somehow, this needs to be democratized so that advantages may be shared more widely. The world has what we may call "islands of happiness", including the United States and Canada, Western Europe, and the area including Australia and New Zealand, and possibly South Korea and Japan because of their wealth and use of technology. However, we also recognize that even in areas we called "islands of happiness" there are millions of poor people. Distribution within countries and among countries are twin problems. The biggest economy in the world, the United States, still has huge numbers of poor. As a consequence, access to the benefits of technology contributes to keeping the poor impoverished, while at the same time maintaining the advantages of the wealthy. Technology has no heart, in spite of its power to be helpful in so many situations. If we do have the means to use technology, we should not become complacent. Keeping a critical and free spirit, we must try to create an atmosphere of enterprise and enquiry. At the same time, we must keep in mind that the cost of a computer in the United States is the equivalent of one month's average wage, while it would take eight years of saving in Bangladesh. (PNUD, 1999, 6). This is further testimony to the maldistribution of technology and the benefits provided from it. The world is not a fair social environment, and the introduction of technology to some places and not others, may increase further the gap between those who have "good lives" and those who do not. Technology is not cheap, and never was. However, in a relative sense it is becoming cheaper in the developed

world. At issue is how to spread the blessings of technology to the developing world. The developing world needs much of the technology found in the wealthier countries, but it also needs to be attentive first to matters of survival. Food, water, shelter, education, health and public safety are all too often luxuries in the developing world. What are often considered technological necessities in the developed world may be considered as little more than electronic toys to someone who is starving. If there is not enough food to eat or clean water to drink, reading one's e-mail messages is not a major consideration. A global strategy is needed to deal with new technologies, with the biggest limitation being imposed by unequal distribution. We know that we need more and more people to participate in the use of technology or else social injustice will be

increased because participation brings with it many education and economic advantages. Of course, there is always the entertainment derived from technologies as well. Having all this in mind, we can say that new technologies are good but they do have limits. Our world, and all the people in it, can gain much with the help of new communications, for example, but we must guard against new technologies, especially computers, benefiting only those in the developed world. In Portugal, when advantage is used to disadvantage others, we use the expression that the advantage is being used to "put others off the train". This may be the time to stop putting people off the train, and to do this means a philosophical shift towards greater sharing and caring. This is the big question regarding the future of the relationship among people, technology, and especially computers. As Indira Gandhi once said "nobody eats bytes". The use of computers may be widening the already enormous gap among people as well as countries, and a big challenge for humankind is to bridge the gap. Possibly, with technology, the world could become a fairer place.

References

Beck, U. (1992). Risk Society. Sage.

Chen, Shaohua and Ravallion, Martin, World Bank, "Report on World Development 2000/2001: attack to poverty," September 2000.

Food and Agriculture Organization, Annual Report, Rome, 15th September 2000.

Gur-Ze'Ev, Ilan, "Critical Education in Cyberspace?"
Journal Educational Philosophy and Theory, Volume 32, Number 2,
Australia, July 2000, also at:
<http://www.tandf.co.uk/journals/alphalist.html>

PNUD or UNDP, United Nations Development Program, 1999
Report on Human Development, "Globalization with an Human
Face" edited in Portuguese by Trinova, Lisbon, 1999, available in
CD-ROM: "Ten Years of People-Centered Development", 1990-
1999 and also at: United Nations Publications, Room DC2-853
Dept. DO99 New York, NY 10017, USA,
<http://www.un.org/Publications>.