

PREFACE

Ever since the invention of telephony, nearly 800 million telephone lines have been installed worldwide. But to date, nearly 50% of the world population has never used the telephone in their life. On the other hand, proximity has generally been remote, as the nearest telephone can be more than half-a-day's walk from one's house: making a simple phone call (supposing that it is useful) would imply at least an overnight stay.

In the last ten years nearly 400 million mobile telephones have been manufactured and sold all over the world. But during the recent floods in Madagascar and in Mozambique (and also in some parts of the much more advanced Zimbabwe and South Africa) it was not possible to communicate in any way with the isolated flood victims for many days. This inadequacy prevented, for example, sending the necessary instructions to deal with emergency in the affected communities.

According to the latest estimates, the availability of the PC in the world stands at more than 400 million units. But most of the world population has never seen a PC; they are oblivious of netsurfing nor do they have access to basic information even for everyday life that are within the click of the mouse for the Western society.

Thanks to advances in the new Information and Communications Technologies (ICTs). The development of new knowledge as well as its propagation has increased at a rate of growth that could not have been conceived a few years ago. Only the invention of the press in the 15th Century has probably given rise to a change in the 'cycle of the knowledge' comparable to that of the ICT revolution has taken the modern world by storm. But all this 'passes over the head' of the majority of the developing countries; for them the increase in growth and in the diffusion of knowledge is very limited; and where knowledge is deficient or missing, where it does not grow or improve, or where it does not have the possibility or unlimited opportunity for spreading, the peoples subsequently get into the spiral of a more and more serious underdevelopment. The relatively low level of development of Brazil, for example, compared with other areas of South America, is considered to be due to the late diffusion of the press in that country - the first printing-press became significant only at the beginning of the 19th Century - owing to the predominance, in part, of political obstacles.

The richer nations of the world must act to promote the diffusion of ICTs in the nations. These observations have been stated and re-stated anew many times over the years, particularly when dealing with some much more evident gaps than the one provoked by the extended diffusion of ICTs in the more developed nations. It is imperative that concrete measures are undertaken to ameliorate poverty in the majority of the developing nations.

It is evident that in the developing countries the cost of technology is incompatible with the citizens' effective pecuniary resources: in the least resourced countries the yearly per capita GNP can be compared with the typical subscriber's telephone bill in the same period. It is also clear that without a plan for the diffusion of the ICTs in the developing countries the economic situation of the countries can just worsen. Inability to maximise on the development of ICTs will mean being cut off from the economic, trading and financial world flux: most of the peoples will not be able to apply the poor but dignified subsistence economy, which is typical of most of the less developed world.

This exposition by Elena Murelli, collaborating with Luca Delgrossi, represents a first analysis of the technological situation (that is, of the ICTs) in the developing countries and - implicitly - of the short and long-term consequences of the inadequate diffusion of ICTs in these countries. It is also one of the first analyses made nearly totally on the internet, thanks to the same technological means that constitute the subject of the underlying research: without a *medium* like the Internet it would not have been possible - for the student and for her teacher - to carry out such a study in a time period that is commensurate with the available time horizon for preparing a degree thesis. The information collected and interpreted by the author is various and varied, the vast amount which could not have been gathered through a pre-organised research. The vast information can be perceived to have had provenance in the slight and omnipresent noise in cyberspace, subjected through the agency of intelligent exploitation of the 'search engines'. The author has been able to select information for us in a clever way, by making reference to what the search engines had selected automatically somewhat 'en-masse'. The author has also able to write successfully and brilliantly a study about a subject that is usually not so charming for the reader.

A traditional academic of course could observe that the research has not

been looked into in a uniform way when dealing with various arguments and that the quality of the collected data is not homogeneous. This is not a fault at all: it is just typical of the researches 'made through Internet'. On the Net one can only find what forms part of the Net's content and the entities that are missing obviously cannot be found. If the author has caught too many basses, a few golden maids and no mullets it is because today the sea has offered us these kinds of fish. We do not know if tomorrow it will offer more, less or a little of either. We have to get used to this new kind of research. Even more, we must be ready to catch the sudden suggestions sometimes rising exactly from the variety of the contents of cyberspace and from the anisotropy of the investigation.

It would be interesting to continue the research in the future and to compare the new results with the results of the current study. We could probably draw some useful conclusions, not only about the evolution of the Internet in the developing countries, but also and in particular about the evolution of knowledge on the Internet.

But this would be a completely different investigation.

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P. S. While this book was going to print, something happened that must be reported here, a postscript: Iridium Consortium, which launched and made operative the homonymous constellation of low-height telecommunication satellites, was poised for closure. It is not a tragedy: how many PC manufacturers could be said to have shared the same destiny during the first years of the development of computing? Nevertheless the PC had its own glory. The same thing could happen (and probably it will happen) also for the constellations of satellites. In the story of Iridium something dramatic will happen: the constellation will be destroyed by the very same consortium that put it into practice. A well-known situation is happening one more time: on the one hand, there are people dying of starvation in less-resourced countries of the world; on the other hand, people elsewhere are destroying the overproduction of food. The ICT emergency for the developing countries would suggest to keep the constellation operating and to supply its services to someone who urgently needs them. The cost of doing so would not be prohibitive at all, if this is implemented within the auspices of international co-operation between countries. How can it be that we transform such a precious good into none but an artificial St. Laurence's Night?

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