



## The portion not considered in the technology debates

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### Introduction

We definitely live in an era of technological revolution, in which not only new technological artifacts are developed and improved but this happens in an extremely fast rhythm. We are constantly being impelled to acquire updates of the devices we use the most: the cell phone I bought today, evolved in relation to the previous ones, in 6 months will already be considered a “lower” model. To accompany technological progress, both in terms of knowledge and financial terms, becomes extremely difficult, but we are eager to follow it because society is becoming more and more dependent of its use: for example, bank institutions already extinguish some transactions in their service in agencies, making it available only in smartphone apps. Actually, it is hard to understand whether technological evolution accompanies the evolution of society or whether we are being driven by technological evolution, and from this doubt it is natural that we engage in discussions about the limits of our technological dependence, what are the advantages and disadvantages from this constant evolution and how we must position ourselves in front of the competition imposed by instruments that we ourselves have created.

What seems to often get bogged down in this debate is that we still have a huge portion of the world population that still couldn't get access to the first levels of this technological progress. Not every layers of society have access to technological resources considered as basics by many people, as the Internet. In a moment when technology seems to be more and more essential as a learning and working tool, as a means of access to information and also as an instrument of political participation, the fact we still have a huge part of the population without access to basic technology would not contribute to deepening social inequality both internally and inter-countries? The Digital Divide exists and I start from the principle that it must be one of the starting point to discuss the society-technology interrelationship.

### The Digital Divide

While access to technological resources can be essential to economic and social progress, it can also lead socio-economic inequalities to unimaginable levels, both between countries at different stages of development and between different strata of populations.



The term *Digital Divide* refers to an economic and social inequality related to the access, use or impact of the Information and Communication Technology (ICT) (NORRIS, 2001). I consider that there is an inherent exclusion within countries, often related to inequalities between individuals or different social classes, races or geographical areas, and a global digital divide between developed and developing countries.

The International Telecommunication Union (ITU)'s 2014 annual report, *Measuring the Information Society Report*, estimates that approximately 3.1 billion people in the world have access to the internet. This fact excludes the other 4.3 billion people that complete the world population, which makes 58% from the total world population still excluded from the digital world (WEST, 2015) – this means more than half! It is hard to believe this information when it seems that everyone we know is already immersed in this technological age. Still, 90% of this portion of the population lives in developing countries (ITU, 2014). Among the 30 most connected countries in the world, all are developed countries, establishing a relationship between income and ICT progress (WAKEFIELD, 2010).

The barriers that lead to inequality of access to technology between countries are numerous, including factors such as poverty, high rates paid per device, data and telecommunication; infrastructural barriers; digital illiteracy and political and operational barriers; social issues such as race, age group, geographical environment (urban / rural); and cultural and psychological conditioning that require far greater analysis than this essay is capable of encompassing.

According to West (2015), for example, income level is one of the main barriers to internet access, being internet penetration lower in countries with lower rates of GDP per capita. Notwithstanding, it is also important to consider the costs of access to this technology in each country. Mobile broadband, for example, is six times cheaper in developed countries than in the developing world (ITU, 2014). We shall remember, however, that the barriers related to income are not exclusive of poorer countries, since they also impact inequality of access between different social classes within a same country, being the United States an example. Yet, the high costs at the time of launching digital innovations mean that each innovation increases digital exclusion - so a new form of connectivity is never introduced instantaneously and uniformly across society, spreading slowly as loses competitiveness with the arrival of new products (HILBERT, 2013). As I told in the introduction: the cellphone I buy today, 6 months from now will be obsolete. We have to do the reflection: if for me, coming from the middle class, it is already hard to go along with this evolution, how could the lower classes of society follow this never-stopping progress?

Another barrier to access is related to infrastructure poverty, which is one of the main reasons why internet penetration is much lower in rural areas compared to urban areas, for example. ITU'S



2014 report showed an increase in the *Digital Divide* between urban and rural areas, including the richer nations of the world. This does not mean that internet access in rural areas is not growing, but that it is growing in lower speed if compared to the urban areas (ITU, 2014).

Yet, some developing countries have political and operational barriers that can embarrass its population access. Some examples are the existence of monopolies of telecommunications providers, fees in the technology sector, lack of digital content, lack of content in the local language and censorship by civil or governmental authorities.

Here, I spoke about some barriers to access to some of the more used forms of technology nowadays, as the Internet and mobile phones. We have more and more complex technological tools, as smart cars, new forms of energy storage and robots that can be used domestically – needless to say, the access to these tools will be even harder to the excluded portions of the population.

## Conclusion

To discuss how we will treat our evolution as a society in the midst of the technological revolution, therefore, it is imperative that we discuss how to insert the portion of society that has not yet been able to access the first steps of this evolution. Revolutionizing technology in education, the labor market, health, the provision of services and information and political participation without solving Digital Divide will only contribute to deepening social inequality and the obstacles to underdeveloped and developing countries. Such a discussion is one more element to be considered for countries that have been fighting for so many years against high inequality rates, as is the case in our region, Latin America.

From my perspective, solutions to reduce *Digital Divide* necessarily pass by the expansion of digital infrastructure, diversification of content, encouragement of diversity of languages and freedom of expression, permission for accessible services and promotion of competition in the digital market, as well as a regulation - in order to avoid monopolies and thus reduce service prices. It should also be borne in mind that improving access conditions alone does not guarantee the universal democratization of the network. Once technology is introduced into a community, individuals need to be taught to use the sea of information and tools to which they are now exposed. The resolution of the *Digital Divide* is not only due to greater access conditions or lower costs; cultural, age and educational issues should be addressed when formulating public policies that encourage insertion into the digital world. Far from being able to address all the complexity of this subject in the few pages of this essay, the proposal is that this point be addressed in the panels that the event will address, so that we can contribute to the global debate about our interrelationship with technology - debate that, with certainty, is far from over.