Native to, or naif about, digital technology?
Forms of social inequality

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Abstract:
The younger generations have been labeled with names that place technology among their presumable characteristics (Y, Z, Millennials, digital natives). These names suggest a homogeneity in the cohort's relation to digital technology — owing to the simple fact that they were born during the digital era. However they keep us from clearly perceiving cumulative, overlapping forms of inequality in the access to this technology and uses of it. The level of education, geographical location, socioeconomic status or membership in specific communities are more determinant factors than the lifestyles or technological and occupational changes that offhanded generational analyses so frequently mention to explain the varying levels of digital inequality among young people.

In talk about young people, their generation is taken to be a marker with regard to digital technology, evidence of this being the success of the phrase "digital natives" (PRENSKY 2001) and, too, the proliferation of microgenerational analyses of the X's, Y's, Millennials and Z's up to the very recent Alphas (DAGNAUD 2011, COCQUEBERT 2019). All these comments have in common that they take technology and the lifestyles related to using it to be the structural characteristics of generations and of the generation gap. Most of these analyses do not focus on age-cohorts consistent with the generations used in sociological analyses. Nor do they have the historical perspective needed to identify the factors defining a generation (ATTIAS-DONFUT 1988). Instead, what prevails is to refer to generations in the same way as the media, with a strong dichotomy between "incorporated representations" and reality, the outcome of on-the-fly comments with the generation gap as its selling point. Initially a framework for understanding the past, the concept of "generation" has become a grid for interpreting identities and, in some cases, predicting social events, as power struggles are reduced to a single factor, the time of birth (or of a significant event).[1]

Since the intrusion of digital technology, waves of panic have, once again, unfurled; and generations provide ready-made, timely explanations for corroborating preconceived ideas. Since they have been born in the digital era, young people, all of them, are presumably mobile and hyperconnected. They only want to become self-employed entrepreneurs and have no sense of loyalty toward firms. They are constantly connected and dream of becoming expatriates. They are bombarded with the products of a global culture and purportedly obsessed with identity issues. Immersed in virtual reality and online relationships, their sociability is restless. As sophisticated citizens with a critical sense, they are seen as the major players in a "*deconsolidation of democracy*" (FOA & MOUNK 2016), preferring as they do more mobile, unstable commitments. But does this description fit reality?

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[1] This article has been translated from French by Noal Mellott (Omaha Beach, France). The translation into English has, with the editor's approval, completed a few bibliographical references. All websites have been consulted in August 2019.

The digital native myth

At the start of the Internet, the rhetoric adopted was intended to be emancipative. According to UNESCO (2005:53), "*a specific Web culture is built up by a process of distribution in which all the actors have a role to play, if only through the choices and sifting they make between all the available sources of information, thus contributing to a continuous creative circulation of information and knowledge, of which no one person or institution is the originating source.*"

The myth of the digital native — persons spontaneously at ease and familiar with digital technology because they were born in the era of "technoculture" (media, contents and the technology for accessing, manipulating or self-producing them) (OCTOBRE 2018) — starkly contrasts with a quite different reality. The concept of "digital native" is inadequate, first of all, because technological skills are not a property of a generation. According to a study by Institut CSA (2018), French young people have a rather shallow knowledge of digital technology because they are satisfied with using basic features (office suites, messaging services, e-mail, the major social media and browsers for searches on the Web). If age and era are crossed to inquire into their effects, persons over forty years old turn out to have the characteristics usually attributed to digital natives. Born during a period when digital technology required a learning effort, they had to learn how to program, how to put things together (how to "get into the machine"), in order to use the first home computers. This relation to technology was sustained as they grew older.

Nor have the purported benefits ("omnivorism", openness, cultural diversity) of belonging to the "digital generation" been proven. The short tail effect in the consumption of culture and entertainment is not specific to the generation of digital natives. We observe it in most cultural industries (books, movies, recorded music) in the digital realm: a small number of titles break big whereas a large number barely manage to survive in niche markets. The Matthew effect, whereby the most fortunate tend to increase their advantage over others, is fully verified among Net users.[2] It ultimately increases inequality, less around the averages than by an accelerated concentration of value at the tip of the pyramid.

True, 18-24 year-olds are among the major mobile users of the Internet — thanks to their smartphones. For sure, they massively download music and are keen on "apps". True too, most of them have one or more social media accounts; and more than a third upload contents. After all, it is true that they spend twice as much time on the Internet as older persons. Digital practices are, of course, a factor in a convergence between generations; but this convergence does not mean a homogenization and egalitarianism of access and uses (GIRE & GRANJON 2012, MERCKLÉ & OCTOBER 2012).

Even yet, the level of education, place of residence, socioeconomic status, affinities and feelings of belonging to a community are more decisive than the factors that "unscientific" generational studies most frequently mention, namely: lifestyles, technological breakthroughs or occupational changes (CREDOC 2018).

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[2] The phrase "Matthew effect" was coined by Robert Merton, who tried to show that the most outstanding academics tended to maintain their predominance in the world of research.

Various dimensions of digital inequality

Shortcuts in the media's rhetoric thus tend to muddle our understanding of the relations between young people and digital technology. They hardly account for the variety of uses and the various forms of inequality (aesthetic, psychological, educational, civic, leisure, etc.) that affect practices. It is all the more important to understand diversity and inequality because they converge toward the "unimedia" that the Internet has become. Several technocultural lines of fracture appear: technological or socioeconomic (related to the conditions of access) as well as sociological or psychological (related to uses).

Inequality in the equipment used and the access to high-speed connections is a first line of a technocultural fracture. We know that young people are better equipped than their elders, and that the presence of children in a household is correlated with the purchase of a computer and with an Internet connection (BRICE *et al.* 2015). However coverage of France with high-speed connection is, we should point out, not complete, even though "good" connections are necessary to, for example, watch a film via streaming. Certain fractions of the population, geographically stratified, do not have the same uses of digital technology because they lack adequate access or high-speed connection.

According to the ombudsman, 541 communes (out of the 36,681 in France) are still, in 2019, "white zones" without connections by telephone or the Internet. Then, there are the "gray zones" where the infrastructure's quality does not allow for sufficient connection speeds. Since connection speed requirements are directly related to the versions of applications being used, this problem is not going to be solved automatically. The unequal quality of the network infrastructure hampers economic development in some areas in the country, an inequality that fosters social and political tensions. Given its many aspects and underlying factors, it is complicated to heal this digital divide in the access to the Internet. This is the line of fracture that has been the most frequently discussed, and several countries have worked out public policies for coping with it.[3]

A second line of fracture runs through uses: the gap in the digital realm between, on the one hand, leisure and entertainment and, on the other hand, the broader spheres of politics, culture and citizenship. Three quarters of youth accomplish formalities on line (subscriptions, searches for information, etc.); and more than eight out of ten have shopped on line. Since computers and smartphones have supplanted television, young people represent a larger share of online media consumption; and nearly all of them use the social networks. However online leisure and entertainment activities are clearly distinct from online activities linked to citizenship.

The lack of control over digital tools is a leading cause of concern for more than half the population without a higher education. These persons are also concerned about the data security (transmission and management) when accomplishing administrative formalities on line (CREDOC 2018). According to the ECDL Foundation,[4] an appreciable proportion of young children and students have rudimentary knowledge about the operation and uses of information and communications technology (ICT). Even fewer have critical skills and the ability to stand back from the findings of their online search engines or from what is posted on line. In service economies and knowledge societies, these shortcomings risk turning these cybernauts into the "lost fraction" of their generation.

A third technocultural line of fracture has to do with reinvesting the digital skills acquired through leisure activities in other fields. The many skills often mentioned to describe young people as belonging to the digital generation are mainly the "lifestyle skills" typical of our times (text messaging, video gaming, uploading videos, etc.). Many fewer young people actually know how to use the Internet to find information (in particular, to tell fake apart from authentic contents), look for

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[3] In France, the central government has not favored high-speed connections to the Internet in the white zones via the deployment of a radio-relay network (such as WiMAX, Worldwide Interoperability for Microwave Access), which can be installed faster and at a lesser cost than laying optical fiber under the ground.

[4] ECDL is an organization for certifying computer skills: http://www.ecdl.com/.

a job (using available tools such as CV-Vidéo or Talents Tube) or send health information (a use of the Net important for half of young people). Owing to the unequal distribution and development of social skills depending on the socioeconomic environment, some youth face situations where they cannot turn the skills acquired through online leisure activities into skills useful in other fields. This holds, in particular, for the 1.9 million young people (17% of this age-group) who have neither employment nor an education nor training (the so-called NEETs). Among them, 85% went no farther than high school, and 42% no farther than middle school (CAHUC *et al*. 2013).

This third line of fracture was detected somewhat belatedly. Till the end of the first decade of the 21st century, public policies mainly saw the relation of youth to the Internet from the angles of schooling, data security and prevention for handling Web-related risks. Two official reports (PRIME MINISTER'S OFFICE 2011, BRAVO 2009) failed to address the "digital inclusion" of young people once they were no longer in the school system or had started working.

The fourth line of fracture runs through aptitudes for using digital technology. This inequality tends to be cognitive or psychological, even though strong social constraints condition it. As cognitive scientists have shown, our brain can process limited quantities of multimodal information (CITTON 2010). The management of multimodality is related to a form of inequality, since each user has specialized resources for processing information as a function of the type of activity — resources that differ depending on the person's cultural capital and social origins (MORENO & MAYER 2000). The digital context of a "hyperchoice" implies control over what Boyd (2014) has called "affordances", *i.e.*, an understanding of the constraints of technology. Each form of technology has its own drawbacks owing to its design and codes of reception or use.

It is often hard to identify these various forms of inequality because they are embedded in each other and in "predigitial" forms of inequality. All available studies show that the mechanisms producing inequality in cultural activities (attendance at events, reading choices, hobbies) are the same as those that determine how digital technology is put to use (DONNAT 2009). An anthropological study carried out by Emmaüs Connect with youth who were dropping out (of school, a job, society) has emphasized that the "*causes of exclusion*" are cumulative (DAVENEL 2014). The absence of digital skills slows down social integration.

Conclusion: Naive and native

While most studies agree that the younger generations are familiar with an environment ever more culturally dependent on digital technology, several academic publications, notably in English, have raised questions about the concept of the "digital native" and have even contrasted it with "digitally naive". Some young people are less native than naive because their digital skills and uses are not homogeneous and because their knowledge of digital technology and the skills acquired through online recreational activities are not always (and for everyone) carried over into other fields (educational, professional, civic, etc.). By bearing this in mind, we avoid repeating the "quarrel of the ancients and moderns" (nowadays the old and young) and can focus instead on youth's ability to use technocultural resources. Keeping this in mind also makes us critical of the many reports in the media on young people. These reports are very often merely evidence of our dire need for a collective memory (even one invented without waiting on time to help us stand back from what is happening), evidence of the impulse to identify generations to be used for marketing purposes.

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