

# Digital integration, a core issue for public policies

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## **Abstract:**

A local elected official, the author of this article, experienced the first wave of the digital revolution during the 1990s, when a radical change took place in industry, the brunt of the wave being felt on relations with customers and between wage-earners. The idea of confidence started being redefined. At the turn of the century, an acceleration occurred, and all sectors, actors and citizens have now been swept into the digital era. Digital “integration” and identification are major issues for our society. The role of local authorities is the cornerstone for a “human smart city” open to everyone.

Born at the end of the 1960s, I am part of the generation that experienced the first “digital transition”. I have a job that did not exist for the previous generation, a job that the guidance counselor in high school could not have suggested. I started my career by designing professional services in telematics. The clients of the firm where I worked were recruitment agencies. They posted job offers, applicants filled out forms, and, depending on the criteria, an applicant was called to set an appointment.<sup>1</sup>

## **From the Minitel, a digital device for the public and a tool for firms, to the first laptops**

In 1980, when fewer than 5% of French households had a computer, the government made the Minitel available to the general public. This device could be used to look up a telephone number, read a list of showtimes for movie theaters (3615 Allociné), reply to ads, etc. The for-free distribution of Minitels placed households on an equal footing. Whether rich or poor, everyone could have access to the same services. Using the Minitel was simple, the services developed for it were intuitive. The first step toward the Internet had been made.

The firms that had to manage a large sales force soon realized that this machine would enable them to significantly gain time and business. Prior to the Minitel, salespersons wrote reports about their meetings with customers, and sent these handwritten reports on paper to assistants, who sorted and typed them, and made synopses. Given the time needed to do all that, the information was never up to date. The reports that the sales force could type on Minitel at the end of the workday were the first step toward digitization in firms, a process that would change the pace of work and put an end to certain jobs in the service sector.

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<sup>1</sup>This article has been translated from French by Noal Mellott (Omaha Beach, France).

Everything started accelerating. From designing applications for telematics, I moved to designing and developing programs for word-processing reports from the sales force and monitoring activities in sales. The benefit for sales was so positive that no one was reluctant to carry a portable computer, which weighed more than 5 kg. As the speedometer continued rising, computers lost weight and volume, and gained computing power. More and more new jobs were being created. Schools were being set up for them. New firms cropped up. Technology was advancing, communication protocols were worked out. Then came the Internet, which soon became essential for carrying forward the digitization of services in firms. Companies had no qualms about financing, in part or in full, access to the Internet for their employees.

## **The digital revolution: Dematerialization and the “digital divide”**

Every firm has undergone its digital transition, as services have been digitized and laptops have occupied offices. Management and data processing have become strategic activities. This revolution initially affected the world of work. At the turn of the century, new opportunities arose with the Internet: roaming services, online payments, multimedia, public data, and so forth. And electronic devices started moving into homes.

For reasons of economics and the environment (an oft mentioned but seldom effective argument since many users were making paper copies of the same document), and in order to simplify processes, firms and public administrations started “dematerializing”. They shut down services for receiving the public and offered, instead, online information and services. Having access to such a service at any time of day is, indeed, a convenience... but a handicap for persons unfamiliar with the Internet.

Unlike during the period when the Minitel was distributed for free to families, it is now necessary to procure a desk or tablet computer, the physical connection (3G, 4G, 5G, optical fiber) and a subscription to an Internet service-provider. Choices about this equipment are hard to make, and people receive no special help with making them. They depend on a salesperson, who will very likely promote the offer on which he/she has the largest commission. This is a first major factor of inequality — what has been called the “digital divide”. Some people do not have access to the equipment needed because they lack the budget or knowledge for making a purchase in line with their needs. To cope with this difference in relation to the equipment, some local authorities have installed computers free to use in town halls, libraries (now often dubbed “multimedia centers”) or schools.

In fact however, the digital divide widens even more in relation to uses. People might have a computer and know how to use it for gaming, uploading photographs or communicating on line with family members but still not know much about its actual use and operation. There are many reasons for this. Generations prior to the 1980s were not “born into” digital technology. These generations lack the understanding or agility necessary for certain software programs, algorithms and applications. The language barrier is a serious obstacle too. Many young people seem to know how to use this technology, given their level of skills for gaming or posting on the social media; but they do not necessarily understand what is expected as input or what output to expect. Is this to be set down to the age of the designers of applications who do not come from the same generation? Might they have adopted approaches or methods that are less well adapted? There are not yet enough women in jobs for designing and developing applications, even though complementarity allows for developing more fluid applications. Furthermore, applications often transpose existing services instead of coming out of a process of thinking seriously about the methodology and digital transition.

## **“Digital inclusion”: Education, the appropriation of digital technology, and the role of local authorities**

Whatever the age or degree of access to computers and computer programs, there is no denying that digital technology risks accelerating the fracturing of society in all senses: a fracture within social classes, a fracture in the world of work and on the job market, and fractured bonds between people. Imagine being locked down during an epidemic without access to the Internet!

Schools are the place where children should be able to learn how to use digital technology starting at a very young age. These uses would be complementary to those discovered with their parents (gaming, videoconferencing with grandparents, etc.). This education means learning about digital technology (search engines, referential websites, e-businesses, etc.) and honing a critical e-mentality. Because a website proposes a definition of climate change does not mean it is telling the truth. A child must learn to carry out searches on different media, compare definitions and opinions, verify sources... and, gradually, appropriate the topic so as to work out its own point of view. Municipal authorities have a role to play in schools by making available the equipment and tools that should provide the grounds for a genuine learning process conducted by teachers. This brings up the question of teacher training. When the Ministry of National Education proposes online workshops (20 hours per year, partly on the teacher's “free” time), I do not think we have found the key to the success of our children.

Since public services for the population are being dematerialized fast, education is also necessary for adults, of whatever age and including those who already use digital technology on the job. The uses of this technology at the workplace often involve basic, general features (word-processing, spreadsheets, calculations) and applications specific to the job (managing customer relations, etc.). Knowledge about the social media or about data as a form of property is not obtained in this way. It is often provided by operators who are chasing their bottom line. Confidence between peers can help remedy this situation, along with the development of ranking and recommendation software. But this does not suffice.

The simple saying “When it's for free, you're the product” should be carved into our memories... and be recalled every time we use digital technology. Individuals must not just learn but also appropriate this technology.

The year 2014 is a landmark in the digital transition. For the first time, town councilors and mayor's assistants were given official assignments related to digital technology, innovation or the “smart city”. Elected officials at this level, who implement the mayor's digital policy, are tackling the problems resulting from the disruption that this technology has introduced in their communes. They have conducted actions and formed networks, for:

- INFORMATION AND AWARENESS. Conferences have been organized along with workshops for introducing people to this technology. Intergenerational workshops bring together senior citizens and young people to familiarize them with the new generation of telephones. This helps mend the fracture between generations and sometimes even reduce the anxiety of this public.
- FOLLOWUP. Material and software have been made available, along with communal employees, to help citizens use them. “Houses of services to the public” have been set up in several so-called “priority” neighborhoods.

After having supported the installation of sensors, the collecting of data and the use of applications that supposedly have an answer for everything in a “smart city”, communes have turned to a more “human” approach. In a shift toward a “human smart city”, other types of tools are being developed for interactions between elected officials, the public administration and citizens — applications that, in many communes, allow for formulating an opinion and participating out of a spirit of co-construction. These tools are not limited just to the relations between electors and the elected; they also target citizens’ relations with merchants or associations, and make it easier to bring together all stakeholders in the commune.

## **New stakeholders**

Not all communes have the financial or human means for re-absorbing the digital divide. Several associations have been set up or are now offering services for the “digital inclusion” of their public. The programs of associations for helping women or families in difficulty now take account of digital technology, as do the programs of the associations that advocate the integration of the homeless or of refugees. These various parties have the human means, thanks to volunteers, but sometimes need additional financial support.

Firms are sponsoring programs for “lending a hand” to associations. A firm thus offers its wage-earners the possibility of putting their knowledge and experience to use for assisting persons in difficulty or for assisting associations in redesigning their strategies. Private foundations regularly issue calls to tender for projects with possibilities for the recipient associations to obtain funding.

By “public foundations”, I am referring to foundations that, with ethical financing, are managed by public authorities and focused on the values of solidarity and the common good. AFNIC Foundation supports local projects with the goal of using the Internet for the purpose of social and economic solidarity by diffusing uses and knowledge. Its mission is to develop solidarity, support societal changes and reinforce social cohesion in France. This foundation, associated with the Foundation of France, has supported 244 projects for a total of nearly €5 million since 2015.

## **Conclusion**

The digital transition is a major policy axis in France and the world. Everyone must be included: citizens of all ages, firms and associations of all sizes. For citizens, local officials are the trusted third party. These officials have a granular knowledge of their territory; and thanks to this special relation, they can play a role in making the digital transition smoother and faster. The success of this transition, as well as the appropriation of digital tools and uses, is a source of inspiration for conducting the transitions, whether those under way or those to come: economic, environmental and social. The success of these transitions will be indispensable in the coming years, a legacy that we will leave for the current and future generations.