

# INTRODUCTION



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The city, as geographer Guy Burgel described it, is a “total phenomenon.” It is a political, economic and social space where all dimensions of human activity intermingle: production, consumption, work, as well as citizen engagement and entertainment.

From the city as a “tool” to the city as a “fun place” and to the political city, the city is a way of life. Cities are multi-faceted but the urban phenomenon has something unique as well. Urban civilization, and the relations between the citizens that it implies, in a way transcends the diversity of urban spheres.

At the same time, and like a mirror effect, information and communication technologies are equally *transverse* technology: digital technology is revolutionizing the way we consume, produce and work, together with our social ties and our private relationships with others.

So, it is no overstatement to say that what is commonly called the *Smart City* is a protean phenomenon covering extremely varied dimensions.

Digital technology’s potential is not limited to optimizing the city’s infrastructure and its urban services. It is contributing more fundamentally to the rapid rise in new ways of living, working and consuming in the city.

As a French politician recently pointed out, “A change in era occurs when new technology meets values. The printing press didn’t change the world; it was the encounter between the press and the values of the Enlightenment. With digital

technology, we are witnessing something of similar importance.”<sup>1</sup>

In other words, technological change and social evolution resonate together, support each other and accelerate apace with each other.

If the intuition turns out to be correct, the smart city will without doubt have been a conduit for far-reaching change. It is clearly the art of living in the

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city that is about to be remodeled through the digital transformation.

Such is the aim of this issue of Facts. Using actual case studies, the purpose is to analyze how digital technologies are revolutionizing the city’s functions, the relationships between citizens and between citizens and the other stakeholders, public authorities in particular, giving rise to citizens’ engagement.

Modesty must act as a precious compass here as ICTs have, perhaps even more than any other technology, the virtue of not always serving the aims for which they had been introduced. As the historian Laurence Fontaine points out, “The advent of any new technology is always an adventure as no one really knows what it will become, who will use it, how, or to what ends. Innovations come with only limited instructions when they are created and it is the people – rarely the ones the inventors had imagined – who take hold of them and end up defining how they are used.”<sup>2</sup>

At the same time, it is necessary to stipulate the context in which this urban transformation is occurring and to anchor this discussion and the practices analyzed in today’s urban evolution given the extent to which digital technology will entrench or disrupt the city’s inherent tensions. Three urban “tensions” would seem to be particularly affected by digital technology.

## Smart city, economic growth and social inequality

Today’s cities create wealth and inequalities. A recent OECD report – *Making Cities Work for All*<sup>3</sup> – analyzes the relationship between cities, economic growth and social inclusion. The city first and foremost creates opportunities. In the OECD countries, cities have, for example, contributed 60% of employment and GDP

<sup>1</sup> Nathalie Kosciusko Morizet, Interview with Liberation, 2016

<sup>2</sup> Preface to *La France du Bon Coin*, Institut de l’Entreprise, 2015

<sup>3</sup> *Making Cities Work for All – Data and Actions for Inclusive Growth*, OECD, October 2016

growth in the past 15 years. Urban household wealth is also on average 18% higher than in other areas.

At the same time, inequalities have been growing<sup>4</sup> in cities for several years. The issue of inequality is undoubtedly global, exists more or less everywhere, and the divide between richest and poorest is growing. But the urban phenomenon deepens inequality. Income inequality is even greater in cities.

In all OECD countries, income inequality is greater than the national average within metropolitan areas<sup>5</sup>. Additionally, the larger the city, the greater the inequality. Metropolitan areas with a population of more than 1.5 million have the highest Gini coefficients in terms of disposable household income.

While the link between the city, growth and inequality is far from being a new phenomenon, the effect of digital technology is somewhat specific. Smart Cities can both reduce inequality by providing greater opportunities through better connections and reducing urban fragmentation, but they can also considerably worsen inequality, as evidenced by the discussion about the robotization and uberization of the economy.

### Smart city and urban governance?

Cities are by definition built from the interaction between citizens on the one hand and the city's organizations on the other. In other terms, the city is structured on the basis of the relationships between citizens themselves and through the ways decisions are made between residents, political authorities and the other stakeholders, companies in particular.

The issue of governance therefore sits at the heart of the urban question. Here again, digital technology is a powerful factor driving transformation given the extent to which the smart city can revolutionize the old balance between citizens on the one hand and between citizens and all the city's stakeholders on the other. In other words, the smart city re-distributes the urban governance cards giving citizens far greater powers.

The smart city is an accumulation of platforms allowing citizens to communicate with each other and enabling the organization of new forms of exchange for all types of information, products or merchant and non-merchant services.

While these platforms are indeed highly heterogeneous, they are also governed by the same rationale: auto-organization that can turn out to be a conduit for very rapid progress but even more broadly a way of questioning the traditional authority of established players. The *multitude*, as defined by Nicolas Colin and Henri Verdier<sup>6</sup>, that is, the millions of educated and

connected people, especially in cities, who are now able to innovate in a more horizontal manner at very low cost, can bring about far-reaching change to the social dynamic and governance of cities.

### Smart city, privacy and private life

The city is also a place where people seek peace, anonymity even, but sometimes also desire frenetic movement, information or new sensations.

This tension is further stressed by digital technology. How is it possible to benefit from the opportunities provided by digital technology for optimizing our daily urban lives while at the same time ensuring the protection of our privacy that is one of the fundamental givens of urban life.

In *L'homme nu*, Marc Dugain and Christophe Labbé explain that "Taking control of our lives is benefitting a new global oligarchy. A new dictatorship threatens us. A Big Mother far more terrifying than Big Brother. If we sit idly by, tomorrow we will all be *naked humans* without any memory, programmed, under surveillance?"

Numerous associations are indeed seeking to defend the right to privacy and to protect our private lives.

These issues nonetheless reflect a degree of schizophrenia: urban citizens want to optimize their consumption and benefit from increasingly tailored services but at the same time they are concerned about the effect on their private lives.

These three issues provide a common thread to this issue of Facts: smart cities and new business models with ambivalent impacts on inequality, smart cities and governance, and smart cities and protection of privacy.

This issue is divided into three main sections. The first seeks to define the conditions for legitimizing the smart city, especially with regard to the most ambiguous issues. The second section determines and uses actual case studies to document today's most significant transformation drivers. The third section aims to identify the success factors that can be used to govern scale-up.

4 The average income of the wealthiest 10% is now 9.6 times greater than that of the 10% poorest in OECD countries (compared with 7 times 25 years ago).

5 Canada is an exception to the 11 countries studied in the OECD report.

6 Henri Verdier, Nicolas Colin, *L'âge de la multitude*, *Entreprendre et gouverner après la révolution numérique*, Armand Colin, 2012

7 Marc Dugain, Christophe Labbé, *L'homme nu. La dictature invisible du numérique*, Laffont – Plon, April 2016