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SMART CITIES ARE ONLY POSSIBLE WITH SMARTER CITIZENS

The use of information technology to improve the quality and management of cities has become increasingly common. And, as a consequence of the intensification of this use, “smart city” appears as a term applied to cities that invest in the use of IT not only to improve their infrastructure and develop economically but also to increase their levels of sustainability, improve the quality of life of their inhabitants and enhance their visitors’ experience.

Another fundamental characteristic of a smart city is the citizen's communication and participation. The data generated by the government are shared with the population through digital platforms, with a wide range of possibilities for citizens to participate in the management of their city and help implement it. One example is the Unicef's initiative in Rio de Janeiro, which encourages teenagers to take pictures and map the issues found in the region where they live – such as accumulated garbage and stagnant water, which may be a dengue mosquito breeding site –, thus facilitating the monitoring and mapping of these issues by the government.

These and other examples of the use of an IT network support the belief that citizens, allied to their active, collaborative and clearly collective role, are the soul of a smart city. However, in many cases, the concept is misunderstood. Many people think of the convenience provided by IT to the users of a smart city's typical services. However, the success of the initiatives related to the concept will increase to the extent that the people who coexist in these cities, inhabitants and visitors, become smarter and more engaged socially.

However, one of the most tangible aspects of an authentic smart city is found at the economic level. The better operation of public services already serves as a starting point for lower expenditures and more efficiency, but a smart city goes far beyond that. IT allows the government, companies, citizens and tourists to develop a closer relationship and share information. For this reason, the volume of information, insights and criticisms allows to better order the private and public initiatives that benefit the city. Likewise, the impacts and potential benefits of these initiatives can be assessed rigorously, timely and at a low cost. In New York, for example, people in a certain area of the city can be informed through their smartphones of potential heavy rain and floods. Additionally, the quality of organization or security of an event at a public place can be assessed almost instantaneously through simple answers to text messages sent via cell phones. The possibilities to prevent losses and waste and to adopt corrective measures are huge. However, again, these depend on the active and collaborative use of the people involved.

In addition to that, smart cities are considerably attractive to tourism, an activity with clear economic impacts. The convenience of using public transport and having access to free wi-fi Internet in strategic points, such as parks and restaurants, for cultural event schedules; hotel, restaurant and tourist attraction maps; and even people's evaluations, provides tourists with more security and encourages them to explore the cities in a way that would be impossible without the support provided by IT. In this sense, it is possible to say that the quality of public services may not be fully used when information cannot be accessed easily. This causes a significant impact on tourists, especially foreigners.

The Getaround application, which was created in San Francisco, California, is a successful example of how a citizens' initiative can change the routine of a city with the support provided by IT. This application was conceived for car-sharing purposes, allowing people to rent their cars to other citizens for short periods of time. Ride-sharing applications are also already very common, such as BlaBla Car. Through this application, drivers can offer rides with the benefit of sharing long-distance travel costs. In Amsterdam, the Amsterdam Smart City (ASC) association, a partnership among the government, companies and citizens, developed a smart traffic management program that helped reduce by 10% the time spent on traffic.

There are also many initiatives related to the generation of electricity. Despite being more sustainable, solar energy is more susceptible to variations. Therefore, encouraging the individual generation of energy has become necessary. There is a pilot project in Germany that encourages each house to generate a small portion of its own energy. Thus, when the energy distribution system requires extra energy, residences having their own generation of energy can help balance the system. Additionally, batteries are installed in houses, allowing the reuse of energy generated in excess.

There is not a strict standard of solutions for a city to become smart. That is because each city has its own “personality”, issues and history, whether due to its climate, culture, population or size. All this set of social, geographical and cultural elements makes each city unique. Therefore, for a city to be smart, despite having to better develop its infrastructure in general, it needs to discover its weaknesses and, with creativity and intelligence, find solutions applicable to each of them.

It is important that the final result be a city where living, working, having fun or simply walking around can be pleasant activities. And that the city can also be profitable and sustainable, providing quality of life today and to future generations.

For all of that, technology is the body, but citizenship and the feeling of collectiveness and plurality are the soul of a genuine smart city.