

## Smart Cities and Global Village

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### Abstract

The focus of the Smart City concept is fundamentally that effective internet technologies, the use of the Internet of Things (IoT), and improving opportunities to advance community growth in a manner that benefits all. The underlying assumption is that smart city creates conditions where crime decreases, poverty decreases, and unemployment decreases through expansion of opportunities for entrepreneurship, while natural resource utilization improves with technological efficiencies. This is problematic because implementing technologies automatically eliminates a significant portion of the population from participation and access because they either lack initial financial resources to join the tech revolution, or lack the comprehension and education to make use of the technologies. Concurrently, others will take advantage of the IoT to maximize illicit profits rather than join the legitimate economic community. A good example of this is the underlying tech used by the residents of Artemis, the recent novel by Andy Weir. It is the ultimate “smart city” but there are still legitimate and illegitimate uses of tech, crime, corruption, and varying levels of poverty and wealth through the population.

**Keywords:** Smart Cities. Global Village. Marshall McLuhan. Security. Data. Technology. Entrepreneurship. Wealth. Communities. Economy. United Arab Emirates (UAE). Dubai. Tolerance. Artimus. IoT.

### NARRATIVE

The World in general, and the United Arab Emirates, specifically Dubai, has been focusing on Smart Cities where happiness and tolerance exist among all the UAE Communities. After attending few conferences, workshops and listening to a few so-called scholars at academic Institutions, no one can really come up with a clear and crisp meaning to the concept called *Smart Cities*. Jack Gold, an analyst at J. Gold Associates said, “‘Smart city’ is one of those all-encompassing terms that everyone defines however they want.”<sup>1</sup>

The term ‘smart cities’ is not as new as been thought. The phrase *Global Village* has the same meaning and was introduced by Marshall McLuhan (1962) and popularized in his book *The Gutenberg Galaxy: the making of typographic man*.<sup>2</sup> McLuhan’s concept of global village was not understood by many, particularly, by scholars in the field of Media and Mass communication. They understood the term to mean that the world we live in has shrunk and has become a global village. To many this was due to technological advances that occurred across many fields. McLuhan’s concept about dramatic technological innovations was not just meant to bring nation-states closer to each other, but the true meaning was more noble than that, and the meaning was far more obvious. It was meant for the nation-states who have wealth/science/agriculture/education/medicine/security/ and prosperity to help and assist those who have-not; to reduce, if not eliminate poverty and misery among poor nations. In other words, McLuhan proposed the transmission of knowledge/prosperity/security/tolerance and technology to all who needed them; a concept the same as that of smart cities.

This explanation might shock some scholars in the media field due to the fact that this has not been previously proposed in the literature. The underlying concept of the smart city is not innovative. This is an old concept, long described in one form or another throughout the science fiction of the 1950s and 1960s, if not earlier. McLuhan drew on these concepts and expanded them into the realm of fact with his work on the global village. The smart city is a modern-day rebranding of an earlier concept, one with significant negative international perspectives, globalization. Now it is being proffered on a much smaller scale than Hillary Clinton’s, *It Takes a Village*.<sup>3</sup>

Since the meaning of global village is clearer than before, and its meaning expands beyond the use of technology, the same applies to smart cities. Everyone we spoke to implied the term means the transformation and the use of data and technology for the sake and well-being of the communities; such as the uses of smart phones/social media/smart clocks/computers and new technological innovation that will bring wealth and transform communities.<sup>4</sup> Michael Totty expounds on this in a Wall Street Journal article.<sup>5</sup> Steve Olenski writes

<sup>1</sup> Matt Hamblen, Just what is a smart city?, *Computerworld*, 01 Oct 2015. Available at:

<https://www.computerworld.com/article/2986403/internet-of-things/just-what-is-a-smart-city.html>

<sup>2</sup> Marshall McLuhan, *The Gutenberg Galaxy: The making of typographic man*, (Toronto: University of Toronto Press, 1962).

<sup>3</sup> Hillary Clinton, *It takes a Village and other Lessons Children Teach Us*, (NY: Simon & Schuster, 1996).

<sup>4</sup> Jesse Berst and David Logsdon, The Hill: At Smart Cities Week, tackling opportunities and challenges, *Smart Cities Council*, 17 Oct 2016. Available at: <https://smartcitiescouncil.com/article/hill-smart-cities-week-tackling-opportunities-and-challenges>

<sup>5</sup> Michael Totty, The rise of the smart city, *The Wall Street Journal*, 16 Apr 2017. Available at: <https://www.wsj.com/articles/the-rise-of-the-smart-city-1492395120>

in Forbes<sup>1</sup> that more than \$41 Trillion is expected to be invested in the IoT and related city modernization worldwide. In citing the Wall Street Journal, Vik Monder, Naveen Rajdev, and André Bueno, the concept that humans are important to the process of creating smart cities is rampant, yet at no point do any of these writers, analysts, or business publications move a step lower and recognize that at the base of advancement of technology are human beings.<sup>2</sup> Nor that the very core of that advancement is education and available human resources. Here academic institutions will play an important role in taking on the initiatives currently undertaken by partnerships between technology companies and municipalities. Without a continuous stream of educated technical experts and engineers in the field, knowledgeable of IoT and smart city applications, there will rapidly be a drain of necessary support staff as each subsequent community is incentivized by earlier successes to draw off skilled talent.

It is through the educational complex that soft-skills ready individuals with appropriate technical backgrounds are produced to support future smart cities and sustain the long-term development and implementation of ongoing advancements to already applied technological concepts. By soft skills, we mean personal attributes that enhance student interactions and school performance and success in being creative; taking initiative; communication skills; imagination; and resourcefulness in bringing unique perspectives; and being expressive rather than docile. These traits are essential not in building smart cities, but implementing the concepts behind the smartness and marketing these to the average human resident/worker/entrepreneur within the connected community.

Our goal is the importance of expressing that much like globalization of industry and money, the smart city is dependent not simply on technologies and political support; but also on the availability of a continuous flow of capable and qualified human resources to support and sustain the process. City managers and technology companies have the same goals and aims. Yet they have not seen the need for investment in the educational complex in a manner to develop a source of capable and competent long-term employees.

Showcasing this point, we can refer to the Dubai Internet City, and to Dubai Silicon Oasis. In the former, the basic infrastructure was provided for the globally recognized Blue Chip Companies, to establish a base of operations, and to import and utilize its vast resources to provide services and opportunities for the community, commercial districts, governmental and private sectors. This boosted the overall image and stature of Dubai to be the IT capital of the GCC and MENA regions. The latter represents an actual living example of a smart community, whereby all the smart services are provided including a free internet connection for the residents.

But alas, not all the advancements in technology and their impacts on the human society are benevolent. As with the nature of man itself, there is a rather dark side to the argument, misuse of technology for nefarious means is a constant source of worry and apprehension to the law makers, the enforcers, and the community in whole. The emerging trade technologies leave gaps where circumventions of import and export regulations are difficult to impossible to trace and to hold fully accountable. So too are the challenges associated with terrorism funding or controlling massive money laundering which undermines the economic stability and prosperity of the nation state through tariff and tax evasion.

Moreover, the exposure to and the dependence on technology has yet a darker streak, the vulnerability it provides in term of cyber-attacks is a continuous threat. With greater augmentation and automation comes expanding opportunity for breach of security. For example, should the identification and digital authentication means of the Dubai government bus initiative provided of late be compromised, all the services and personal and governmental kept records pertinent to the individual are in danger of misuse. The resulting devastation from identity theft, loss of property or funds, or other unforeseen consequences would not only impact the people whose data were compromised, but the reputation of Dubai and the UAE as a safe place to conduct business.

As with all technological changes there are concurrent issues with advancement of society and abuse of those not able to participate due to limited access to the advancing technology. The question is not one of doom and gloom, but to find ways to go beyond providing for the wealthy and technologically advantaged and find ways to equally bring all people in a community to a new level concurrently.

If we were living in the year 1018 AD (408 AH) we would have a pretty good idea of what our world would look like in 1050 AD (441 AH). In the year 2017 AD (1438 AH) we have absolutely no concept of what the world will be like in 2015 AD (1472 AH). Let alone how our world will look in 2100 AD (1523 AH). Dick Tracy's two-way wrist radio was introduced in 1946 and converted to a two-way TV wrist watch in 1964.<sup>3</sup> Today it is no longer an abstract concept from a comic strip. We have Apple Watch and Google Glasses on virtually every electronics store shelf world-wide.

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<sup>1</sup> Steve Olenski, The Dos and Don'ts of building a Smart City, *Forbes*, 26 Oct 2017. Available at: <https://www.forbes.com/sites/steveolenski/2017/10/26/the-dos-and-donts-of-building-a-smart-city/#1579e97c7f5f>

<sup>2</sup> Ibid.

<sup>3</sup> The Story of Information, The Evolution of Dick Tracy's Wristwatch, posted on January 24, 2011 at: <https://infostory.com/2011/01/24/the-evolution-of-dick-tracys-wristwatch/>

As Y.N. Harari (author of the best seller, *Sapiens*) tells us, we are in an era where humanity is on the edge of bringing all our future planning into a world where *Homo Sapiens* are about to become something else. That's right! As we plan for smart cities and technologically advanced and intraoperative society, we are concurrently experiencing an age where medical and technological marvels are ongoing on a daily basis. Those with spinal cord breaks would normally be paralyzed for the rest of their lives. Now, we have the technology to jumper those nerve breaks and restore the ability to walk to those who cannot. We are creating lenses for the human eye that are not just replacements but actually bionic components that will adjust to ageing changes automatically, working with the fine control muscles to allow distance focus from reading a book to seeing as if you were using binoculars. Doctors and scientists are already creating nano-robots that would target and destroy specific cancer cells. Not only is all this possible today, but the future is coming at such a speed that what we can do with bionics today will be considered obsolete by the end of this year.<sup>1</sup> How then does planning a smart city fit into a society where humans will be modifying themselves to accomplish simultaneously from all around the world what cities are investing in for only five years hence?

## CONCLUSION

The utilization of technology across the development of mankind as a specie, was a positive impact in the whole, it targeted communities to be smarter, by providing a transformation of knowledge management, prosperity, happiness, information accessibility, tolerance, better secured borders, cleaner environments, higher standards of education, and a more positive actions and interactions among Nation-States. These will undoubtedly will decrease unemployment, poverty, and have better participations of the citizens. Yet this is only a temporary stage in human advancement during the next 20 years. All will be overcome by advancements in humans as we continue to advance human bioengineering. Should we abandon smart cities altogether or should we concurrently develop smart cities and biology along with the other sciences, technologies, engineering, and mathematics necessary not just to provide quality of life and business growth but to also manage the transition from what we are today, to what we will become over the next century. Smart Cities are only a very small part of the future to come in the next century.

## Author Biography

**Professor Nabeel A. Jurdi, Ph.D.** He received his B.SC in political science and economics from the University of California in 1970, and his MA in international relations from the University of Southern California in 1972. He earned his Ph.D. in government from Claremont Graduate University California, USA, in 1977. He has taught in the USA, England and the GCC. His latest post was Vice President for Academic Affairs-Provost from June 2007-2017. His main interests include International Relations, Communication, Diplomacy and Security Studies.

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<sup>1</sup> Y. N. Harari, *Homo Deus: A brief history of tomorrow*, (NY: Harper, 2017).