

Where Does the Smart Cities Drive Leave Urban Planning?



Urban planning is a profession which is experiencing big changes as a result of advances in geospatial and other technology. In this article, Niall Conway explains why planning is too important a profession to risk becoming sidelined by innovation and explains what needs to be done.

The expression 'the future ain't what it used to be' has been used for quite a while to express our struggle to keep up with the unpredictability of modern life. It is natural therefore that this term will resonate with any profession, in any industry, which has a focus on strategy.

In the era of Smart Cities urban planners, like other professions, are approaching a crossroads. Do they continue to plan for growth and development and to engage with stakeholders in an increasingly digital world using yesterday's established processes and systems? Or do they acknowledge the fact that our current way of doing things are being redesigned into applications and algorithms which can perform the very same job to a similar or higher degree, and therefore adopt a new approach.

Current Methods

Before we explore the options which are available to urban planning professionals we first of all need to understand what exactly a planner does, how he or she does it, and how this is all being turned on its head by locational technology and information.

Planning is a cognitive activity which has been around for as long as humans have been building settlements and communities. The planning profession which we know today was first institutionalised at the end of the 19th century, largely as a response to the negative side effects which the industrial revolution had on the human and natural landscape. Planning was about taking back control in an increasingly urbanised complex world. It was about implementing regulation and order, about ensuring livable and healthy urban spaces, and about ensuring that cities could continue to function as they were intended: to create wealth.

Urban planning is one of the most complex and multidisciplinary professions which exists. It is a discipline which is grounded in geography and maps, and it is focused on ensuring that the right development is planned for the right location at the right time. In order to carry out the planning process, the field divides itself into numerous sub-disciplines: land-use planning, transportation planning, development assessment, strategic planning, planning policy, natural resource planning, waste management, economic development, and heritage planning (but to name a few). Along the way, planners deal with a wide range of stakeholders: members of the public, policy-makers, politicians, business owners, engineers, architects, archaeologists and natural scientists (again but to name a few). To counter a common misperception, planning is not about driving ahead with a singular vision. The reality is that planning is about establishing and using predictable processes in order to balance the interests of all stakeholders in order to build a sustainable future.

The digital world of Smart Cities is changing the nature of planning in a big way, and this could be a problem. Aside from certain sub-disciplines, planning in general is not a technical profession. Planners are conceptual thinkers, relationship-builders, and problem solvers. Their profession is grounded in an awareness of what is happening in the local and wider world, and a recognition of the effects which decisions can have on people and places. Unlike the IT world, which is about rapid change and innovation, planning is about steadiness, calculated strategy, security and predictability. A planning system is a means to achieving an end, not an end in itself.

As mentioned earlier, the planning profession is for this reason at a crossroad. With more and more companies seeking to take a slice of the lucrative Smart Cities market, and with ongoing deregulation of council functions, cities are feeling the pressure to compete. As a result, planners knowledge is slowly becoming commoditised by data-driven solutions, and the collection, modelling, and analysis of complex geographic information is becoming more and more the job of the computers than it is of humans. Vast quantities of real-time Big Data from satellite imagery, mobile devices, and sensors are being used by companies in order to build a more accurate understanding of the world, its inhabitants and the dynamics within it. Combined with Streetview imagery and precision mapping, machine learning algorithms can determine and gauge the effects a planning decision will have on the built environment to astonishing accuracy. And this is before one considers the effects which augmented reality, driverless cars, BIM, cyber-security, and e-commerce will have on both cities and the professionals who plan them.

Future Methods

In 2017, a new cultural mindset among planners is required. Considering the geographic nature of the profession's focus, developing an understanding of geospatial technology is the obvious starting point. In the age when multiple (sometimes unqualified) parties are becoming involved in the city building process, planning, a collaborative and consensus-building profession by nature, should ensure that it is at the forefront of the Smart Cities drive. In order to ensure that the planning professional and the cities which he or she is responsible for do not become siloed the industry must ensure that the profession promotes and nurtures the right skills among its community. As a starting point, planners need to learn how to think about cities in terms of layers and shapes - whereby services are represented by points, roads and pipelines as lines, and administrative and other boundaries as polygons. The profession also needs to adopt a new technical terminology which includes terms use as attribution, geoprocessing, topology, modelling, and interoperability. By doing so, planners will ensure that their profession, one which is too important to see sidelined by innovation, remains relevant as it moves into the 21st century.

In conclusion, I realise that some of the mentioned suggestions regarding the upskilling of planners would require a massive undertaking by employers. However, if one is to believe that job automation is an inevitable reality waiting to happen then this undertaking, especially within the private sector, cannot start soon enough. The future may not be what it used to be, however, it is certainly not outside of our control.

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