



SMART CITIES: AT A CROSSROADS

Professor Simon Joss FRSA is co-director of the International Eco-Cities Initiative at the University of Westminster, which provides research and consultancy on urban innovation. He explains why smart cities are at a crossroads between technological innovation and local engagement.

Interest in the smart city has grown rapidly across global regions, so much so that it has become a major topic of discussion among policymakers, planners and developers. The Indian government recently launched its national 'Smart City Mission'; the US government has invited bids from cities under its 'Smart City Challenge'; and the European Commission promotes '12 Smart City Solutions' as part of its 'GrowSmarter' urban investment programme. In Britain, too, the government has been keen to spearhead smart city innovation by sponsoring the 'Future Cities Demonstrator' initiative (Glasgow was declared the winner among 29 participating municipalities), setting up a Future Cities Catapult, and commissioning the British Standards Institution (BSI) to publish a series of smart city standards.

While efforts to define the smart city conceptually and to gauge the likely implications of big data on urban governance are still relatively nascent, emerging practice developments on the ground offer useful insights into the opportunities and challenges created by this new urban paradigm. Indeed, according to a recent comparative study of 10 UK cities (Birmingham, Bristol, Glasgow, London, Manchester, Milton Keynes, Newcastle, Nottingham, Peterborough, Sheffield), rather than suggesting a uniform direction, in practice smart city initiatives come in many forms and shapes. They range from 'Smart Innovation Networks' (London) aimed at facilitating collaboration among technology specialists, developers and utility companies, to 'Democratree' (Bristol) allowing citizens to suggest and decide where to plant new trees in the city, and from an 'Operation Centre'

(Glasgow) serving as integrated traffic and public safety management system, to 'Intelligent Lighting' (Manchester) seeking to reduce carbon emissions through digitally connected LED street lighting. This variety is explained partly by differing conceptual approaches, and partly by contrasting local needs and priorities.

Trying to make sense of this emergent practice diversity, it may be useful to group current smart city initiatives into four main categories (in practice, these are often overlapping):

1. **Service-use function** – Improving various utilities (water, energy, transport etc.) by digitally linking urban infrastructure and allowing real-time information and feedback
2. **Entrepreneurial function** – Facilitating opportunities for tech developers, citizens, utility companies and planners to collaborate to find new solutions for urban challenges
3. **Civic function** – Inviting residents, visitors, commuters, pupils and other members of the public to use and share data to enrich civic life in the city
4. **Political function** – Opening up policy and decision-making to greater public involvement and deliberation through various online platforms (discussion forums, voting apps etc.) linked to officialdom

As expectations are mounting about the opportunities offered by smart city innovation – in terms of investment both at individual city level and across the wider sector aimed at propelling the UK to a

leading global position – at the same time several challenges lie ahead. This includes the need for sustained, long-term investment and development beyond typically short-lived pilot projects; smart systems and processes especially require regular updating (and upgrading) to provide real-time information and thus maintain their currency.

A second, related challenge is to integrate smart city innovation with existing planning structures and policy processes. Thus far, the impetus for smart cities has mainly come from the UK's Department for Business, Energy and Industrial Strategy, with less discernible engagement by the DCLG. This is often mirrored at municipal level, where smart city initiatives may be championed by economic development agencies with little involvement of planning departments. It is partly for this reason that the discussion about smart cities has become increasingly focused on the need for effective co-ordination and collaboration among multiple actors – public, private and civic.

Finally, smart city initiatives will only be properly successful if the public – as producers and users of data, and as partners in developing and implementing new tools and processes – is effectively mobilised and its needs and preferences are recognised. Doing so would certainly go some way towards alleviating concerns that the smart city risks pushing a technocratic and business agenda at the cost of local democracy.

FOR MORE INFORMATION

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