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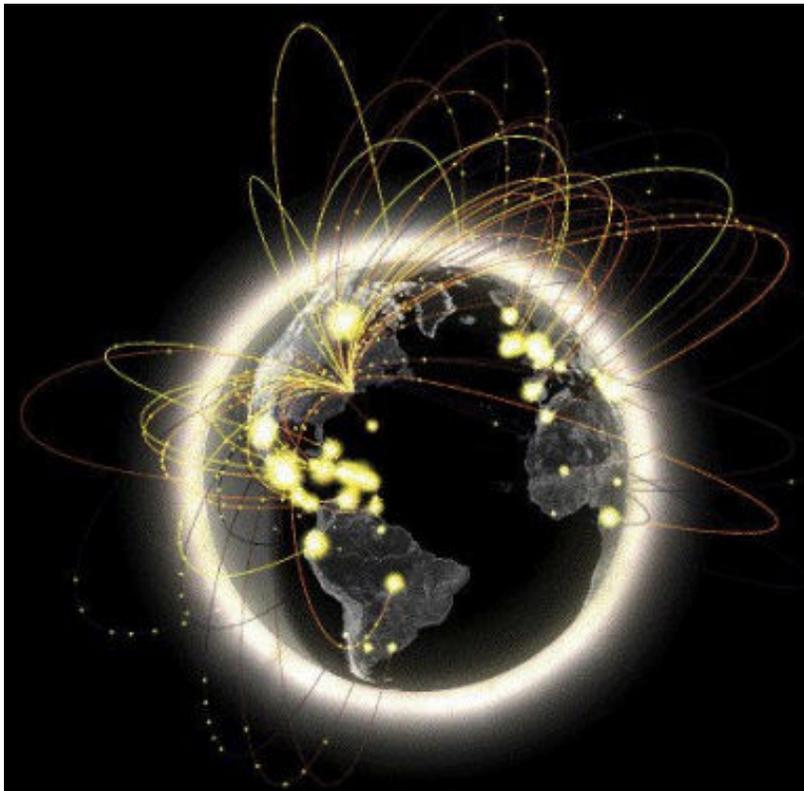
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Future  
Technologies

Friday 22 Aug 2014

Carlo Ratti, Carlo Ratti Associati



## EDITORIAL

**How can architects identify which disruptive technologies will advance our cities' evolution and which will fall by the wayside?**

*The following commentary is part of a wide discussion regarding the role of future technologies in the AEC industry. Please [click here](#) to view the associated editorial and [here](#) for a short video.*

First, let's start with the vision. What is happening at an urban scale today is similar to what happened two decades ago in Formula One auto racing.

Up to that point, success on the circuit was primarily credited to a car's mechanics and the driver's capabilities. But then telemetry technology blossomed. The car was transformed into a computer that was monitored in real time by thousands of sensors, becoming 'intelligent' and better able to respond to the conditions of the race.

In a similar way, over the past decade digital technologies have begun to blanket our cities, forming the backbone of a large, intelligent infrastructure. Broadband fibre-optic and wireless telecommunications grids are supporting mobile

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phones, smartphones and tablets that are increasingly affordable.

At the same time, open databases - especially from the government - that people can read and add to are revealing all kinds of information, and public kiosks and displays are helping literate and illiterate people access it. Add to this foundation a relentlessly growing network of sensors and digital- control technologies, all tied together by cheap, powerful computers, and our cities are quickly becoming like 'computers in open air'.

In order to define these changes we prefer to use the word 'senseable cities', instead of 'smart cities' - that highlights the human, instead of the technological - side. One of the results is that there is more interaction between humans and the built environment. It is as if our cities, buildings and objects were starting to 'talk back to us'.

Now the methodology: if one has to intervene at the interface between people, technologies and the city, different competences are needed. Both at the Senseable City Lab and at the design office, Carlo Ratti Associati, we have people coming from the world of design - architects, planners, and so on, from the world of science and technology - computer scientist, engineers, mathematicians, physicists, and experts from the social sciences. Only through collaboration among all these disciplines we can tackle the complex problems of tomorrow's cities.

In the implementation of projects, then it is vital to involve citizens. I think that the designer has to allow citizens to build a powerful distributed intelligence and contribute to a novel form of activism, giving them the right environment and the right tools to make this possible. I believe in the idea of a 'Choral Architect': someone who could enable citizens to manage and design their cities, organizing and supervising this action.

Carlo Ratti  
Carlo Ratti Associati

## Key Facts

Client

Status

Value

0(m€)

Carlo Ratti e associati  
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