

Futures of geographic information in a digitalising society

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Geographic information, and solutions that utilise this information, will have key roles in tomorrow's digitalising society. Digitalising society, as I understand it here, refers to a societal form in which vast amounts of data are gathered and utilised through different kinds of digital systems and infrastructures, both distributed and centralised. Some theorists have claimed that digitalising society will result in an "explosion of connected devices" (Iansiti & Lakhani 2014), leading to increased data flows and increasing technological complexity. In the presentation I argue that this "explosion" will not only be about connected devices, it will simultaneously be an "explosion of geographic information" circulating in and through digital systems, and more widely in society. This is because geographic information components can, at least in principle, be integrated to all kinds of technological devices and systems that use and produce digital data.

The explosion could realise, for example, through emerging Internet of Things (IoT) that aims at combining wide range of utilities and objects through seamless, and largely automated, networked interactions. There will be increasing amounts of automatic sensors in everyday environment when sensor technologies mature and become cheaper, such as environment sensors, soil sensors, and sensors in urban infrastructures. These sensors will provide new aspects and layers to geographic information. Mobile technologies and different social media platforms produce immense amount user-based data that can be harnessed for varied purposes. These trajectories will lead to a situation in which there is a possibility to source geographic information basically "whenever" and "from everywhere". This situation will lead to intriguing societal and economic impacts. Thus, it is important to ask, for example, following questions: In what kind of society we will live when this happens on a large scale? How will this seamless geographic information be utilised in society? What kinds of business opportunities or societal challenges emerge? Will the "explosion of geographic information" require new forms of societal regulation?

In the presentation, I will discuss different aspects related to the use geographic information in digitalising society, by combining perspectives from social studies and futures studies. I will also prospect how so-called radical emerging technologies could be integral parts of this "geographic information wave".