

Google Brings the Internet Down to Earth: EU Policy, Social Computing, and Geographic Space

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Abstract

Fifteen years into the Internet revolution the information society is at the cusp of a new transformation that promises tremendous social value and fresh economic opportunities: Cyberspace is to gain a sense of place. The central challenge to unleashing much of the potential of the digital ecosystem is to find a common organizing framework for bringing diverse information sources together. In essence, this question boils down to: how do you organize the Earth's information? The answer is as simple as transformative: use the Earth as an organizing metaphor!

This new digital awareness paves the way for a wide variety of new applications, services and business models, including enhanced environmental and disaster management, urban planning and traffic management, precision agriculture, navigation and fleet management, location-specific services and marketing, epidemic disease monitoring, etc. We witness the rising amount of new geospatial information (GeoData), the increasing ability to geo-code (or geo-tag) any kind of existing digital information, and to generate, share and retrieve it in real-time, at and for any location.

While Geographic Information Systems (GIS) have been around for a long time, Google and other major players are currently democratizing GIS, creating critical mass. Google Maps, the combination of its mapping and virtual Earth applications logged more than 2.7 million unique visitors per week just a couple of months into its existence. This success is illustrative of the transformative power of an application model that aligns closely with the values, user expectations and information practices of the Internet community. The strategy appears to rest on four pillars: (i) low barriers to entrance; (ii) a free, very attractive repository of content, satellite and aerial images to kick-start usage, (iii) an open development language and transparent interface, and (iv) extreme, distributed computing power.

This paper will map the central elements of this new open geospatial information architecture, provide a forward-looking perspective on possible application opportunities and identifies key policy challenges that come with it. More specifically the paper will examine current EU policy against that backdrop, from a technical, economic and legal angle. It will discuss pertinent rules, such as the INSPIRE Directive, which aims to establish a common framework for annotating and sharing geographic data between Member States. It also focuses on Directive 2003/98/EC on the re-use of public sector information, with regard to the non-discrimination provision. The paper demonstrates how the public sector - currently the single biggest producer of information in Europe - has a very active role to play in promoting the success of Mother Earth as an organizing

metaphor for the digital era. It threads out the various policy scenarios revolving around (i) the availability of publicly held GeoData, and (ii) the systematic geo-tagging of public sector and private information.