

Web Map Mashups: Cartography of Insurgence?

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Abstract

This presentation explores and critiques the world of online “mashups,” hybrid web applications that combine data from multiple internet sources and often include a mapping component. We investigate how geospatial mashups deal with problems of data and representation, how they are positioned with respect to conventional Geography and GIS, and how they negotiate a sometimes antagonistic relationship with the providers of data upon which these mashups are based.

Background and Relevance

Mashups are often made by non-expert individuals, and mashup culture presents itself as a populist alternative to traditional top-down forms of knowledge transfer. Geospatial mashups are often associated with the term “neogeography”, implying a self-conscious break from the established discipline of Geography and the realm of GIS professionals. Similarly, the term “mashup” is borrowed from the practice of creating new works of music by sampling parts from other songs, often resulting in violation of copyright and producing a culture necessarily antagonistic to established structures of power and even forms of economic exchange. In a similar vein, many web mashups obtain their data through the process of screen scraping, often in violation of the scraped web site’s Terms of Service agreement. However, to others mashups are well within the mainstream, emblematic of the new paradigm of distributed authoring and sharing of content known as Web 2.0. Numerous geospatial internet startups, along with established search companies such as Google and Yahoo! have created a variety of tools to facilitate the creation of mashups and the sharing of geospatial data, hosting an increasing amount of user-created data on their own servers. It is on this landscape that the conflicted culture and technology of mashups continues to develop, a medium both for amateurs and experts, positioned both in- and outside the structures of power.

Methods and Data

In this presentation we present a historical analysis of the development of web map mashups since their inception, using selected case studies to focus attention on the shifting relationships between outsider mashups (for example, mashups created by community and activist groups) and their constituent third-party data sources (such as Google’s base maps or information screen scraped from government or corporate websites). Contrasting these mashup case studies with traditional paper cartography and GIS, we explore a number of questions: Are web map mashups a new kind of cartography that is more usable or more accessible to more kinds of people? Is the public using mashups to present fundamentally different representations of the world?

Do map mashups comprise a democratic mapping practice that opens up representations of space to concerns beyond those of business and the state? Finally, we track the changing stance of Google and Yahoo! with respect to mashups, and analyze the consequences of the differing approaches they have taken to attract map mashups onto their servers.

Conclusions

It is our belief that web map mashups do in fact provide new tools and new ways of representing space and, as such, define a new cartography, whose implications are still to be determined. Nonetheless, enthusiastic claims about the ability of mashups to wrest mapmaking from state and corporate hands are currently overstated. We show here how web map mashups are neither inherently liberating nor repressive, but rather are instruments used toward different ends, embedded in a network of interdependencies and interests.