

MASHING UP GEOSPATIAL DATA SERVICES: IMPLICATIONS OF ACCEPTABLE USE POLICIES

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On average, mashups tagged with the keyword “mapping” account for about 40% of the total mashups currently developed. One major cause for this phenomenon are the widely-available, free, online mapping services provided by mainstream IT firms. For example, Google has developed easy-to-use map application programming interfaces (APIs) and estimates over 150 million visitors to its map services as of May 2009. However, this unprecedented development of Web 2.0 functionality has been subject to existing acceptable use policies accompanying the services and service APIs. This paper reviews and analyzes the existing Terms of Use or Terms of Service from a number of private online mapping service providers, and presents observations on the potential social, organizational, and technical implications of the current acceptable use policies in developing map mashups and related applications. It argues that existing acceptable use policies may not support a healthy mashup ecosystem.

En moyenne, les sites ou applications composites étiquetés avec le mot-clé « cartographie » représentent environ 40 p. cent des sites ou applications actuellement développés. L'une des causes majeures de ce phénomène est celle des services de cartographie en ligne gratuits et facilement accessibles offerts par les principales entreprises de TI. Par exemple, Google a développé des interfaces de programmation d'application (IPA) cartographiques faciles à utiliser et estime que plus de 150 millions de visiteurs avaient eu accès à ses services de cartes en date de mai 2009. Toutefois, ce développement sans précédent de la fonctionnalité du Web 2.0 a été subordonné aux politiques d'utilisation acceptables en vigueur accompagnant les services et les IPA du service. Le présent article examine et analyse les modalités actuelles d'utilisation ou de service de plusieurs fournisseurs privés de services de cartographie en ligne et présente des observations sur les implications sociales, organisationnelles et techniques possibles des politiques d'utilisation acceptables qui sont en vigueur au niveau du développement des sites composites de cartes et des applications connexes. Il fait valoir que les politiques d'utilisation acceptables qui sont en vigueur n'appuient pas nécessairement un écosystème sain de sites ou d'applications composites.



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1. Introduction

Originated from the music world, the term “mashup” could have different meanings in different contexts. On the Web, it is simply a website or web application that combines data, functionality, content, or services from more than one source to create new services [Wikipedia 2009a]. A mapping mashup involves at least one map service. According to *Programmableweb.com*, mashups tagged as “mapping” account for about 40% of the total number of mashups currently developed. Many of these map mashups are not in traditional GIS or web-mapping application domains; instead, they provide social networking services, often integrated with mass social networking channels, information visualization, and sharing services. For example, Facebook Friends Map (<http://www.floriangilles.com/software/facebookfriendsmap/>) is a mashup using the Facebook application programming interface (API) and the Google API to enable Facebook users to map

their friends on Google Map with a link to friends' Facebook profiles. The driving forces for such developments are: (1) the free online map services from mainstream information technology (IT) firms; (2) the recent development of map APIs such as those found at Google Maps, MapQuest, Microsoft Bing, and Yahoo! Maps; and (3) the emergence of web services and related Web 2.0 technologies. Web 2.0 is one of three major themes of technologies identified by Gartner, Inc. which may have transformational, high, or moderate impact over the next ten years [Petey 2006].

Mashups are about consumers (normally general public users), data and service aggregation, and collaboration between people using a single, integrated data presentation within a social, business, or organization setting. Together, they form what is called a “mashup ecosystem” [Weiss and