VOLUNTEERING GEOGRAPHIC INFORMATION TO AUTHORITATIVE DATABASES: LINKING CONTRIBUTOR MOTIVATIONS TO PROGRAM CHARACTERISTICS

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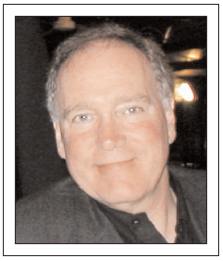
This paper builds on research by the senior author in reviewing and classifying both VGI contributors and the nature of their contributions. Drawing upon lessons learned in other types of user contribution systems, the authors discuss and propose recommendations as to how a deeper understanding of contributor motivations and the contributions themselves may influence the design of more sustainable re-engineered mapping programs in future. They then use these recommendations to compare and contrast three programs or initiatives driven by volunteered contributions: the State of Victoria's Notification and Editing Service in Australia, the National Map Corps Initiative of the United States Geological Survey, and TomTom's MapShare™ Service. The paper concludes with brief descriptions of related VGI research also currently underway at the University of New Brunswick.

Le présent article ajoute à la recherche par un auteur chevronné visant à réviser et à classer tant les contributeurs d'information géographique volontaire (IGV) que la nature de leurs contributions. En faisant appel aux leçons apprises d'autres genres de systèmes de contribution des utilisateurs, les auteurs discutent et proposent des recommandations sur la façon dont des connaissances plus approfondies sur les motivations des contributeurs et les contributions elles-mêmes pourront influencer la conception de programmes de cartographie réinventés et durables à l'avenir. Ils utilisent ensuite ces recommandations pour comparer les similitudes et les différences de trois initiatives menées par des contributions volontaires : le State of Victoria's Notification and Editing Service en Australie, la National Map Corps Initiative de la United States Geological Survey et le Service MapShare™ de Tom-Tom. L'article se termine par de courtes descriptions de la recherche connexe sur l'IGV aussi présentement en cours à l'Université du Nouveau-Brunswick.



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1. Introduction and Background

Advances in geospatial positioning, Web mapping, cellular communications, and wiki-based collaboration technologies have now outpaced the original visions of the architects of national mapping and spatial data infrastructure programs around the world (e.g. *Goodchild* [2007], *Craglia et al.* [2008], and others). Commercially, Google Map Maker now provides to citizens in 43 countries with the ability to help populate and update Google Maps road centerline and attribute data in that country [*Jones* 2007; *Google* 2009] (See Figure 1). Firms like TeleAtlas, Navteq, and TomTom each already use web-based customer input to locate and qualify mapping errors and/or feature updates required in their road network databases [*Biersdorfer* 2007; *TomTom* 2009].

The concept of "user-generated content" (also called "user-created content" or "consumer-generated media") is nothing new [*OECD* 2007]. *Cook* [2008] and others document a long history of both passive and active user contribution systems (or UCS) in the consumer market. Further, there are numerous examples of public participation GI systems where interested individuals have offered input and feedback to professionals and communities of interest in both roundtable and web-based settings (e.g., *Craig et al.* [2002], *Sieber* [2006], *Tang and Coleman* [2008]).

What is different with Web 2.0-based contribution initiatives is the more influential role assumed by the community. As pointed out by *Bruns* [2008], *Shirky* [2008], *Jaokar and Fish* [2008], and others,

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