

Chapter 1

Engaging With the Participatory Geoweb: Experiential Learning From Practice

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ABSTRACT

Maps were historically used as tools of the elite to maintain and expand power and control. The development of participatory mapmaking and the geoweb have opened new avenues for broader citizen engagement and therefore challenge traditional power dynamics. This chapter analyzes three examples and presents experiential learning around participatory processes and VGI contributions. Specifically we explore who is contributing their information, what are their motivations and incentives, in what ways do users interact with available technologies, and how is this contributing to change? We conclude by discussing the roles of motivations, the type of contribution, organizational capacity and leadership, and objectives. In comparing and contrasting these case studies we examine the individual and organizational dynamics of engagement, and how this can better inform the discourse about VGI.

INTRODUCTION

Over time, maps have been used by society's powerful as tools of control, as means for securing land and resources, and as mechanisms to establish and assert control. In recent decades, participatory mapmaking, and more recently the emergence of the participatory geospatial web (geoweb), has swept "like a pandemic" and acted to purposefully challenge these power dynamics (Chambers, 2006, p. 1). It has been claimed that participatory processes, wherein information is contributed by the 'crowd', can be empowering for those often excluded from the agency of mapmaking (Cochrane, Corbett & Keller, 2014). In the contemporary context of the geoweb, this citizen contribution of spatial information is frequently framed as volunteered geographic information (VGI) (Goodchild, 2007b). As new web-based mapping

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technologies and mapmaking platforms emerge, there is a need to better understand VGI contributions: who is contributing their information using the participatory geoweb, what are their motivations and incentives, in what ways do users interact with available technologies, and how is this contributing to change? In this chapter we draw upon applied research to approach answering these questions. We analyze the complex, contested and diverse nature of VGI, drawing upon three examples that use the participatory geoweb tool Geolive. In comparing and contrasting these examples we examine the individual and organizational dynamics of engagement, and how this can better inform the discourse about VGI.

BACKGROUND: CONTEXTUALIZING VGI

The contributions made by individuals in participatory mapping projects occur within a broader trend wherein citizens around the world want to voice their opinions and have their concerns acted upon (e.g. McGee, Edwards, Minkley, Pegus & Brock, 2015; World Bank, 2014; 2016). In some instances, these are activities undertaken alongside government initiatives, such as community members informing development planning and natural resource management (Brown, 2006; Brown & Reed, 2009; 2012; Brown & Weber, 2013a; 2013b). However, the needs and priorities of community members who provide VGI and government officials receiving this input may not align (Brandeis & Nyerges, 2015), resulting in a lack of interest and limited impact (Brown, 2012). At the other end of the spectrum, VGI can be a part of the process that challenges and contests government, including re-mapping resources to challenge ownership (Peluso, 1995) and territorial control (Quiquívix, 2014). The choices embedded within maps have multiple impacts creating layers of complexity and dilemmas related to whose worldviews and priorities are conveyed in the process (Hodgson & Schroeder, 2002; Wainwright & Bryan, 2009). It is within this challenging change space that VGI is best engaged with. Participatory mapping and VGI offer opportunities for enhanced citizen engagement as well as a means to influence (or compel) transparency and accountability of decisions that affect the public. At the same time, the limitations and the potential for using these tools to co-opt public opinion or be mechanisms of exclusion must also be considered.

In the context of participatory mapping, VGI is closely associated with crowdsourcing whereby individuals contribute geo-located information as a means to share and engage with geographic issues, processes and problem solving (Brabham, 2008; Estelles-Arolas & Gonzalen-Ladron-de-Guevara, 2012; Howe, 2006). Generally, the act of contributing is voluntary and the viewing of data is open, however in certain instances it is restricted. For many, the ‘crowd’ is imagined as being representative of citizens for whom the issue at hand is relevant; broad, diverse and “radically distributed beyond the boundaries of professionalism” (Brabham, 2008, p. 75). Platforms, such as Geolive, provide an online space for collective place-based knowledge, experience and wisdom to be captured, shared, exchanged, contested and negotiated. As a group, it is argued, the collective wisdom is greater than the sum of its individual members (Surowiecki, 2004). Yet, the data points and products of participatory mapping projects are not a reflection of all members of society; barriers of accessibility, identity, language, status, skill, political affiliation, location, age and user priorities may alter the composition of the ‘crowd’ and thus the processes as well as the products (Beischer, Cochrane, Corbett, Evans, Gill & Millard, 2015). While crowdsourcing offers unique opportunities for enhanced citizen engagement, it can also reflect existing inequalities and be a means through which prevailing conflicts may be re-created. It is not possible to make broad generalizations about when crowdsourcing is representative and when it is not; rather, stud-

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