

# Chapter 41

## Tracking Public Participation in Urban Governance: Democracy and Data Privacy

Nancy J. Obermeyer  
Indiana State University, USA

### ABSTRACT

*This chapter examines the use of GIS, geovisualization, and other geo-locational technologies and applications, including social networking websites and mobile phones associated with Web 2.0, as a tool kit for promoting democratization or leading to loss of data privacy and freedom, focusing on the relevant historical events in 2011 and the first half of 2012. The chapter begins by presenting a brief history of the GIS and society literature, including public participation GIS, volunteered geographic information, and geospatiality. The discussion covers both the rosy view (geospatial and Web 2.0 technologies as a democratizing force) and the gloomy perspective (these same technologies as tools of control based on data capture and loss of privacy). Underlying both of these views are scale and the ability to jump scales, which are examined through the lens of Kevin Cox's (1998) "spaces of dependence and engagement." Having laid this groundwork, the chapter considers events in the recent past, focusing first on the Arab Spring movements in Tunisia and Egypt and the Occupy movement in the U.S. as examples of the optimistic perspective. It then proceeds to discuss data capture from smart phones and cell phones as examples of the pessimistic view. The chapter concludes with a discussion of how individuals may enhance the democratization potential of geotechnologies and Web 2.0 while minimizing data capture, loss of spatial data privacy, and the harm that these can bring.*

### INTRODUCTION

Inherent in the GIS and society literature is the role that geographic information systems and cognate technologies play in promoting or inhibiting democracy and collaborative urban governance.

When GIS and society first came into our lexicon in the early 1990s, GIS, GPS, and remote sensing were the technologies that came to mind. Today, mobile phones and their smartphone descendants, along with expanded internet capabilities (Web 2.0) are the most widely owned gadgets capable

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of collecting and storing the spatial data of private citizens. The point of concern is that these data may then be analyzed or otherwise used by public and private entities for their own purposes, often without the knowledge and to the potential detriment of the owners of the devices who supplied the information. Social media have become commonplace tools for connecting with friends, family, or colleagues, thus providing another cache of personal data that also includes a spatial component.

From the earliest days of these technologies and devices, their use and capabilities were often perceived as a double-edged sword of hope and fear (Klinkenberg, 2007). On one hand, the hope was that regular people armed with local geographic data could use their local knowledge to influence the political process and policies that affected them, thus promoting democracy and empowerment. On the other hand, it was feared that the personal data (including spatial data) gathered by public and private entities could readily be used against those who use geospatial technologies, cell phones, and social networking sites, thus harming the very people who provided their personal information.

The past couple of years have proved to be fertile ground for exploring both prognostications. The component parts of Web 2.0, including smartphones, social networking websites, and wikimaps have been important organizing tools for the “Arab Spring” as well as the “Occupy” movements. The democratizing capabilities of geospatial technologies and Web 2.0 seem to be in full bloom, in spite of the efforts of dictatorial regimes to control these technologies as a means to halt the rising tide of democracy. More ominously, what has been described as “...the most hyperbolic intrusion of privacy rights” (Derene, 2011) was perpetrated not by a government, but by a private corporation in late November of 2011, as it came to light that monitoring software by a company called “Carrier IQ” was automatically installed on the newest generation of smartphones.

Then in March, 2012, a study undertaken by the American Civil Liberties Union (ACLU) of cell phone monitoring by law enforcement agencies in the U.S. provided evidence of a rapid expansion of this practice in recent years (Lichtblau, 2012). This chapter will discuss both developments.

One element in the debate over the advantages and disadvantages of geotechnologies and spatial information that also warrants discussion is scale, and particularly, the idea of jumping scales. Whether the subject is a local movement with national (and sometimes even international) goals, or national governments (or multinational firms) keeping a closer eye on individuals, geospatial technologies and social networks made possible by Web 2.0 have made it easier to jump scales both from the top down and from the bottom up.

This chapter examines the use of GIS, geovisualization, and other geo-locational technologies and applications, including the social networking websites, cell phones, and other elements of Web 2.0 as a tool kit for promoting democratization or leading to loss of freedom, focusing on the relevant historical events in 2011 and the first half of 2012, raising issues that are highly relevant for urban governance. The chapter begins by presenting a brief history of the GIS and society literature, including a discussion of public participation GIS (PPGIS), volunteered geographic information and geoslamery. The discussion covers both the rosy view (geospatial technologies as a democratizing force) and the gloomy perspective (geospatial technologies as a tool of control based on data capture and loss of privacy), what Klinkenberg (2007) refers to as “geographies of hope and fear.” A consistent theme of this discussion is the role that the evolution of technologies from expensive tools for experts to inexpensive tools for the masses has played in influencing the balance between hope and fear.

Underlying both of these views is the element of scale and the ability to jump scales, which are examined through the lens of Kevin Cox’s (1998) “spaces of dependence and engagement.” Having

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