

# Chapter 12

## Open Source, Crowdsourcing, and Public Engagement

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### ABSTRACT

*This chapter is an investigation of open source, crowdsourcing, and public engagement in the public and nonprofit sectors through four cases: (1) Changemakers competitions, (2) Peer to Patent in the U.S., (3) Future Melbourne 2020 in Australia, and (4) Idea Box in Japan. Macintosh's (2004) case analytical framework is adopted to systematically document the four cases for comparisons. From the literature three components are identified to understand the open source and crowdsourcing models: initiator, mechanism for information selection, and beneficiary. Three components are used to examine how governments or nonprofits adopt the open source model or crowdsourcing model to facilitate public engagement. The conclusion is that different designs of the projects might lead to different scales of public engagement, defined by Savar & Denhardt (2010). Finally, some potential issues and challenges of implementing the open source and crowdsourcing models to facilitate engagement in public affairs are discussed.*

### INTRODUCTION

A recent trend of adopting new technologies, such as wikis and interactive web applications, has emerged as a solution to resolve complex issues. Web 2.0 technology allows individuals and organizations to utilize the “wisdom of the crowd” (Surowiecki, 2005), and create a new mass collaboration in producing services and products (Tapscott & Williams, 2006). Wikipedidia, Linus, and InnoCentive in the private sector have shown

how mass collaboration production fundamentally changes the current business world through openness, peering, sharing, and acting globally (Tapscott & Williams, 2006).

Similarly, this trend has also created an alternative channel for the governments to engage the public. For instance, The U.S. Patent Office initiated a pilot experiment Peer to Patent to open up the internet patent examination process for the public to review through Web 2.0 technologies (Loiselle, Lynch, & Sherrerd, 2010). The city of Melbourne launched the Future Melbourne 2020 project that engaged citizens to draft a city plan

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through Wiki technology. These new technologies allow citizens to edit, modify, and evaluate other citizens' opinions and ideas on a policy issues, through a trend known as Participation 2.0 (Nabatchi & Mergel, 2010).

Few distinctions have been made among different ways and practices of utilizing the wisdom of crowd and mass collaboration using Web 2.0. To further understand public engagement in the Web 2.0 era, this chapter discusses two important models, namely open source and crowdsourcing in the private sector. To assist with this venture, four cases are highlighted in the public and nonprofit sectors. Four typical and early cases that adopted either open source or crowdsourcing practices were selected. Changemakers is one of the first foundations that adopted the philosophy of open source by outsourcing its grant proposal selection process to the public. The Peer to Patent case was also selected as this had a large impact on the later Open Government Initiative. The Future Melbourne 2020 project was also the first project that used wiki technology to engage citizens to draft a city plan in Australia. Finally, the Idea Box in Japan was one of the early projects in Japan to experiment with online policy consultation.

To understand how government and the nonprofit sector adopts open source and crowdsourcing models to engage the public in public affairs, we identified three key components that differentiate these two models: initiator, a mechanism for information selection, and beneficiary (Brabham, 2008). Then, they were used to compare the four cases. To thoroughly document those cases, Macintosh's (2004) framework was adopted to collect and analyze the level of participation, decision-making rules, actors, technologies used, rules of engagement, duration and sustainability, accessibility, resources and promotion, evaluation and outcomes, and critical factors for success. Macintosh's (2004)'s framework is useful to document the details of a case, but it over-simplifies the participation process. To further understand the connection between Web 2.0 technology and

public engagement, we applied Savar & Denhardt's (2010) framework that explains three types of public engagement, namely incorporate, collaborate, and empower.

First the development of open source and crowdsourcing is introduced along with their differences. Then, the influence of open source and crowdsourcing practices in the public and nonprofit sector is discussed. Applying the analytical framework, Changemakers, Peer-to-Patent, Future of Melbourne, and the Idea Box project are discussed. How each case adopted different key component of either open source model or crowdsourcing model and how each case is associated with different types of public engagement is reported. Finally, the issues and challenges of adopting open source and crowdsourcing models in the public and nonprofit sector are discussed.

## **THE DEVELOPMENT OF OPEN SOURCE AND CROWDSOURCING**

The concept of "open source" was first developed during the movement of free software on the Internet. Originally, open source was used to refer to a programming model whereby software developers freely shared their intellectual property with others on the Internet (Open Source Initiative, 1998). Later, it became a growing trend that individuals or institutes self-organized to design goods or services, create knowledge, or share experience through an open source approach (Weber, 2004). Linux is a representative example.

Linux was created by Linus Torvalds in 1991 (Linux, 2007) and is a computer operating system that was made for the public to freely create, share, and use without charge. A general public license, namely an open source license, was invented to allow anyone to use it for free (Moon and Sproull 2000). Linux adopted an open operation model to allow people to create, edit, or modify the program codes online. To maintain the operation, a nonprofit organization was established to keep

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