Mass Potential: Exploring crowdsourcing as a public participation tool in urban planning

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Executive Summary

Purpose of the Research

Canadian planners may not be making the most of online tools to engage communities during the public consultation process and, therefore, may be limiting the extent of public participation as well as the quality of planning outcomes. Crowdsourcing is one example of an online tool that can be used by the public sector to drive citizen engagement to generate innovative ideas and solve complex problems.

Crowdsourcing is defined as *"a mechanism for leveraging the collective intelligence of online users toward productive ends"* (Brabham 2009, 250). Due to its accessibility online and the potential anonymity that is offered by the internet, crowdsourcing may overcome challenges associated with more traditional forms of public participation (attendance, managing special interests, body language, identity politics, cost, time). Therefore, web-based tools like crowdsourcing may be able to realize new opportunities for collaboration in ways that more conventional models of public participation cannot (Brabham 2009). To explore this potential, two research questions were posed in this report:

1. Is crowdsourcing an effective tool for public participation in urban planning?
2. Based on an analysis of case studies where crowdsourcing was used for public participation, what lessons can be learned that could guide the application of this tool for planning purposes in Canada?

Methods

This report followed a multiple case study design to explore the topic of public participation in urban planning and the specific application of crowdsourcing as a tool for public participation. The two primary methods used were a comparative case study analysis and interviews. A targeted literature review was also conducted.

The following three cases were selected for analysis to understand the potential usefulness of crowdsourcing as a public participation tool:

1. City of Melbourne, Future Melbourne Wiki (2008) where a wiki was used to engage the public in the drafting process of the City's 10-year plan.
2. City of Calgary. Our City. Our Budget. Our Future. (2011) where two different crowdsourcing tools were used to gather input from citizens on valued services and city budget allocations.
3. City of Albany, Capital Region Sustainability Plan (2012) where a crowdsourcing tool was used as part of a public participation strategy to develop a regional sustainability plan.

Each of the case studies was analyzed using a conceptual framework and assessment developed by Beierle and Crayford (2002) which sought to understand the success of crowdsourcing tools to achieve five social goals associated with public participation exercises. The five goals were: to incorporate public value into decisions, to improve the quality of decisions, to resolve conflict among competing interests, to build trust in institutions, and to educate the public. The framework includes questions to investigate attainment of outcomes and rankings ('low', 'medium' and 'high').

Case study assessment relied on secondary sources such as government websites, evaluation reports, journal articles and selected media sites. Primary research was also undertaken through interviews with key informants involved in the delivery of the participation exercises. These interviews were used to fill gaps in understanding and to gather deeper insights about crowdsourcing tools used.

Main Findings

Overall, this report provided evidence that the use of crowdsourcing tools as public participation mechanisms results in positive social gains for the community and for government institutions. This was particularly the case in Melbourne and Calgary where web-based engagement tools generated capacity building gains through exposure to new technologies, increased awareness of civic issues and operations, increased trust between

citizens and government, and the collection of innovative and high quality ideas and input resulting in improved decision-making by government.

From this analysis and a review of the emerging literature, this report identified seven main findings to guide the use and application of these technologies in urban planning:

1. Crowdsourcing tools can excel in generating innovative and high quality contributions and bringing a new level of transparency and accessibility to the participation process.

2. Crowdsourcing tools may not be as suitable for addressing conflict within a community as compared with more traditional, face-to-face participation mechanisms.

3. Using online participation tools will require planners to become more knowledgeable about how to build and manage online communities

4. As a best practice, participation processes should strategically layer a variety of mechanisms for public participation.

5. Mechanisms should be selected based on their ability to provide value through meeting the needs of citizens and achieving the goals identified with the process.

6. The evaluation of public participation processes must improve in order to support the identification of best practices and assist planners in selecting appropriate mechanisms.

7. Using new, web-based tools for citizen participation may require external-facing "champions" to overcome organizational barriers to their adoption.

Conclusions

This report concludes that crowdsourcing tools can be a useful addition to the planner's toolkit but that more work needs to be undertaken to fully understand the variety of web-based tools, and where and how they can add the **most value** to public participation exercises. Until this awareness has been achieved, it is recommended that crowdsourcing tools be used in concert with other trusted citizen participation mechanisms as was demonstrated in each of the case examples in this report.

As this is an emergent area of research and practice, there is much opportunity for further study. Additional work is necessary if crowdsourcing is to reach its potential as a public engagement tool. Three areas of further research are proposed:

1. Investigating best practices related to building and managing online communities (including the metrics that are used to measure success and uptake) would be useful for planners interested in evaluating the effectiveness of their efforts to engage citizens online.

2. The question of cost and impact in a world of tight fiscal constraints is an important one. A cost-benefit analysis of these types of participation activities would be valuable for vetting their appropriateness in the Canadian planning context.

3. Exploring the skills and competencies that planners will require as the world moves to more network-based forms of connection, interaction and power. Understanding if planning education is shifting to meet the requirements of planning work in today's world and how that might occur is an important next step.

It is hoped that further research into this topic as well as opportunities to test out these tools in a variety of planning activities will result in planners having a better understanding of the applicability of crowdsourcing tools and their ability to positively impact public engagement exercises. With this understanding, agencies and citizens alike can benefit from improved opportunities to work together.