Policy making 2.0: From theory to practice

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ABSTRACT

Government agencies are gradually moving from simpler towards more sophisticated and complex practices of social media use, which are characterized by important innovations at the technological, political and organizational level. This paper intends to provide two contributions to the current discourse about such advanced approaches to social media exploitation. The first is of practical nature and has to do with assessing the potential and the challenges of a centralized cross-platform approach to social media by government agencies in their policy making processes. The second contribution is of theoretical nature and consists in the development of a multi-dimensional framework for an integrated evaluation of such advanced practices of social media exploitation in public policy making from technological, political and organizational perspectives, drawing from theoretical constructs from different domains. The proposed framework is applied for the evaluation of a pilot consultation campaign conducted in Italy using multiple social media and concerning the large scale application of a telemedicine program.

1. Introduction

Dramatic changes taking place all over the world give rise to new social problems and also make the existing 'traditional' ones even more acute and complex. This situation necessitates the adoption of more citizen-centric and participative forms of public policy making characterized by a stronger interaction between government agencies and citizens, which will allow the former to exploit the knowledge and the creative ideas of the latter concerning the pressing social problems, and also to increase transparency and trust. Over the last years there has been a growing adoption of social media platforms by government agencies for the above purposes (Bertot, Jaeger, & Hansen, 2012; Snead, 2013).

Government agencies initially adopted simple practices of social media use, which included setting up and operating manually accounts in some social media, posting manually content to them (e.g. concerning their policies and activities) and then reading citizens' interactions in order to draw conclusions. Recently, they started experimenting with more sophisticated practices of social media use, which include important innovations at the technological, political and organizational level, leading to increased complexity at all these three levels (Charalabidis & Loukis, 2012; Ferro et al., 2011; Kokkinakos et al., 2012; Wandhöfer

et al., 2012). In particular, at technological level they gradually proceed to the automated posting of content to multiple social media, retrieval from them of relevant citizens' generated content. This is done using both application programming interfaces (API) and automated advanced content processing techniques to draw preliminary conclusions. At the political level, government agencies attempt to communicate with a wider range of citizens' groups, having different cultures, values, and concerns, disseminate to them public policies related information and receive feedback from them. This enables the discovery and exploration of a wider range of heterogeneous views concerning complex 'wicked' (see next section) societal problems and relevant public policies. Furthermore, the adoption of such practices as part of the policy making processes constitutes an important organizational innovation for government agencies.

However, it is widely recognized that further research is required concerning the exploitation of social media by government agencies in various directions, including the development of advanced effective practices and of appropriate frameworks for evaluating them (Bertot, Jaeger, & Hansen, 2012; Chun & Luna Reyes, 2012). Our paper contributes to filling these research gaps. In particular, our main research objectives are:

 i) to assess the potential and the challenges of a centralized cross-platform approach to social media exploitation by government agencies in their policy making processes,
 ii) to develop a multi-dimensional framework for an integrated evaluation of such advanced practices of social media use in public policy making from technological, political and organizational perspectives, based on theoretical foundations from different domains.

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This paper is structured into eight sections. Section two outlines the background of this study. Section three describes the centralized cross-platform approach to social media exploitation by government agencies. Section four presents the proposed multi-dimensional evaluation framework. Section five describes a pilot policy consultation campaign based conducted in Italy. Section six outlines the research method employed. Section seven presents the results of the pilot and its evaluation. Finally, section eight contains some conclusive remarks and future research directions.

2. Background

2.1. Social media in government

Government agencies are increasingly adopting social media in their policy making processes, as they offer interesting opportunities for: i) increasing citizens' participation and engagement, by providing to more groups a voice in discussions of policy development and implementation; ii) promoting transparency and accountability, and reducing corruption; iii) public services co-production, by enabling government agencies and the public to develop and design jointly government services; and iv) exploiting public knowledge and talent in order to develop innovative solutions to the increasingly serious and complex societal problems (Bertot, Jaeger, & Grimes, 2012; Bertot, Jaeger, & Hansen, 2012; Bertot, Jaeger, Munson, & Glaisyer, 2010; Linders, 2012; Tapscott, Williams, & Herman, 2008).

These Web 2.0 platforms enable government agencies to 'crowdsource' useful fresh ideas from large numbers of citizens concerning possible solutions to social needs and problems, new public services or improvements of existing ones, or other types of innovations (Chun, Shulman, Sandoval, & Hovy, 2010; Hilgers & Ihl, 2010; Linders, 2012; Lukensmeyer & Torres, 2008; Nam, 2012; Torres, 2007). This can lead to the application of open innovation ideas in the public sector (Hilgers & Ihl, 2010), and gradually result in 'co-production' of public services by government and citizens in cooperation (Linders, 2012). According to Lukensmeyer and Torres (2008) such 'citizen-sourcing' may change government's perspective from viewing citizens as "users and choosers" of government services to "makers and shapers" of them.

However, it is widely recognized that extensive further research is required concerning the exploitation of social media by government agencies. Chun and Luna Reyes (2012) suggest that additional research is required in this area, mainly in three directions: i) development and analysis of advanced forms of social media usage in government, and appropriate methodologies for evaluating them; ii) development of techniques for processing the 'big social data' collected through citizens' interactions with government in social media, in order to identify ideas, opinions and sentiments; and iii) investigation of the effects of social media exploitation by government on citizens' participation, trust and collaborative governance. Also, Bertot, Jaeger, and Hansen (2012) argue that the usage of social media by government poses important new questions and challenges that require extensive research, such as how social media should be used, how this can lead to social inclusion and not increase exclusion of some groups, how can privacy, security, accuracy and achieving issues be addressed, how social media use in government should be governed, and finally what will be its effects on our current democratic models and practices. This paper contributes to filling two of the above research gaps: (a) it analyzes and evaluates an advanced centralized cross-platform approach to social media exploitation by government agencies in order to support public policy making, and (b) it develops a framework for the multi-dimensional evaluation of such advanced practices of social media exploitation by government, which focuses on their fundamental innovations and complexities,

including three perspectives: technological, political and organizational. The following sections (from 2.2 to 2.4) present the theoretical lenses of these three evaluation perspectives.

2.2. Software platforms and ecosystems theory

The theory of software platforms and ecosystems posits that software development today is increasingly based on pre-existing 'platforms' consisting of 'building blocks' offering basic functionality, which are used for developing 'modules' that provide additional features fulfilling specialized needs of specific user groups (Gawer, 2010; Tiwana, Konsynski, & Bush, 2010), e.g., Apple's iPhone operating system served as a platform for the development of its thousands of 'apps' that provide specialized functionalities. Usually the platform is developed by a major player, while numerous modules are developed by a developers' community, who possess specialized knowledge about users' needs. This emerging software development paradigm is highly beneficial, as it reduces significantly the time and cost required for developing specialized functionality.

According to Tiwana et al. (2010) the main concept in this software development paradigm is the 'platform', which is defined as an extensible codebase of a software system providing core functionality that can be shared by numerous modules interoperating with it, and the interfaces through which it can be accessed and used; as 'module' is defined as an add-on software subsystem that connects to the platform in order to add functionality to it, while as 'ecosystem' is defined the collection of the platform and the modules that have been developed based on it. Highly important for the functioning of this software development paradigm are the 'interfaces' (stable specifications and design rules that describe how the platform and modules interact and exchange information) and the 'architecture' (conceptual blueprint that describes how the ecosystem is partitioned into a relatively stable platform and a complementary set of modules that are encouraged to vary, and also the design rules binding on both). The development and evolution of such an ecosystem also necessitate effective 'governance' of it, defined as the allocation of decision making to its various stakeholders.

2.3. Wicked policy problems theory

According to the theory of wicked policy problems, which has been initially formulated by Rittel and Weber (1973), public policy problems have changed dramatically after World War II, so a different approach is required for addressing them. Previously, they usually had clear and widely accepted definitions and objectives, so they could be solved by experts through 'first generation' mathematical methods, which aim to achieve some predefined objectives with the lowest possible resources; this class of public policy problems has been termed as 'tamed'. However, big changes that took place gradually in most societies increased dramatically the complexity of public policy problems. In particular, societies became more heterogeneous and pluralistic in terms of culture, values, concerns and lifestyles, and this made public policy problems 'wicked', i.e., lacking clear and widely agreed definition and objectives, and having many stakeholders with different and heterogeneous problem views, values and concerns.

For these reasons this class of wicked problems cannot be solved by using 'first generation' mathematical methods, since they lack the basic preconditions for this: they do not have clear and widely agreed definitions and objectives that can be adopted as criteria for evaluating possible solutions. So Rittel and Weber (1973) suggest that wicked policy problems require 'second generation' methods, which combine in a first stage consultation among problem stakeholders, in order to formulate a shared definition of the problem, and then in a second stage mathematical analysis by experts. In particular, in the first stage discourse and negotiation take place, aiming to synthesize different views and opinions, and finally formulate a shared definition of the problem and the objectives to be achieved. Having this as a base, it is then possible to proceed in a