

Chapter 3

Web 2.0 in Governance: A Framework for Utilizing Social Media and Opinion Mining Methods and Tools in Policy Deliberation

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ABSTRACT

There has been significant research in the private sector towards systematic exploitation of the emerging Web 2.0/Web 3.0 and social media paradigms. However, not much has been achieved with regards to the embodiment of similar technologies. Currently, governments and organizations are making considerable efforts, trying to enhance citizens' participation in decision-making and policy-formulation processes. This chapter presents a novel policy analysis framework, proposing a Web-based platform that enables publishing content and micro-applications to multiple Web 2.0 social media and collecting citizens' interactions (e.g. comments, ratings) with efficient use of Application Programming Interfaces (APIs) of these media. Citizens' opinions and interactions can then be processed through different techniques or methods (Web analytics, opinion mining, simulation modeling) in order to use the extracted conclusions as support to government decision and policy makers.

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INTRODUCTION

There has been significant research in private sector enterprises focused on the systematic exploitation of the expanding Web 2.0/Web 3.0 social media (Constantinides, 2009 and 2010; Dwivedi et al., 2011; Evans, 2010). In this digital era, social media has experienced a rapid shift from pure Web-based sites to large and ubiquitous interactive communication platforms. Governments on the one hand and organizations on the other have understood the essential role of Social Media and try to use them in an effective way for their specific needs. More precisely, firms focus on understanding how to use social media in order to support various functions such as Research and Development, Customer Relationship Management and Marketing. It is widely recognized that social media already plays a significant role in many organizations and it is going to increase its role enormously in the near future.

As for the public sector, less research has been conducted solely oriented to the exploitation of the social media (Moreira, 2010; Punie *et al.*, 2009). Government agencies have been trying for more than a decade to take advantage of the information and communication technologies (ICTs)' capabilities in order to acquire a communication channel with citizens and increase their participation in the decision making processes. At the beginning, the tools that were used are mostly traditional channels. Combined with the possibilities brought forth by the Internet, traditional channels have given rise to focus towards the e-Participation research (Barber, 1984; Commission of the European Communities, 2006 and 2010; Loukis et al., 2011; OECD, 2003, 2004a and 2004b; Rowe and Frewer, 2000 and 2004; Saebo et al., 2008; Sanford and Rose, 2007; Timmers, 2007, United Nations, 2008). E-Participation research focuses on research that aims to find out the rate of engagement in a socio-economic discourse by individuals using ICTs as an interaction platform. The first generation of e-Participation contained

many 'official' e-Participation spaces operated by government agencies offering information about decisions, policies and plans taken by the government and the ability to citizens to write their opinions or enter a discussion on various topics. The need for increasing the quality led to more structured e-Spaces and required more focused and disciplined discussions. As a result, the groups of people that could take part in such discussions needed be educated and have a great variety of knowledge. Governments, actually, considered that citizens would visit these websites and actively participate in public debates about policy issues and get familiar with the structure, language and rules of the official websites. However, this action had not as much impact as it was expected. (Chadwick, 2009a; Ferro & Molinari, 2010a). Most of these e-Government spaces were unknown to the majority of online users because the promotion cost a large amount of money and there was a slow pace of dissemination. What is more, many of the topics were initiated by government and did not affect at all citizens who seemed having other problems in relation to which were open for discussion. Additionally, many of these e-Spaces were not user-friendly and as a consequence their use was not easy for all. These problems along with the heterogeneity of online users with respect to political - cultural interests and technological - educational skills as well as the simultaneous evolution of Web 2.0 Social Media led the government agencies to exploit the virtual spaces used and adopted by the online users widening the role of e-Participation.

Also, many of the ICT tools used in the websites were not user-friendly and that led citizens to visit other Web 2.0 social media creating online discussions on their own and moving towards a second generation of e-Participation. Some of the topics that are discussed have a political content (Agarwal et al., 2011; Honeycutt and Herring, 2009; Larsson and Moe, 2011; Mergel et al., 2009; Osimo, 2008, Punie, 2009). While government agencies were trying to bring closely citizens, now

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