

Chapter 11

Opinion Aggregation and Conflict Resolution in E–Government Platforms: Contrasting Social Media Information through Argumentation

Carlos Ivan Chesnevar

Universidad Nacional del Sur, Argentina

María Paula González

Universidad Nacional del Sur, Argentina

Ana Gabriela Maguitman

Universidad Nacional del Sur, Argentina

Elsa Estevez

United Nations University, Japan

ABSTRACT

This chapter presents an account of recent advances in the development of a novel e-participation framework which integrates social networks, intelligent information retrieval and argumentation techniques. We discuss a novel conceptualization for Electronic Empowerment Participation (E2P), a radically new perspective on e-Participation, where collective thinking patterns can be identified under the generic form of “arguments”, being contrasted automatically and enhancing thus the abilities of the different stakeholders to engage in creative participatory processes. The underlying machinery that makes E2P possible is given by agreement technologies, a new metaphor that integrates several aspects from database theory, artificial intelligence, multi-agent systems and social infrastructures. A core component in this conceptualization is an underlying argument-based approach, which allows to mine opinions from text-based information items based on incrementally generated topics.

INTRODUCTION AND MOTIVATION

At the dawn of the United Nations (UN) Agenda for Post 2015 (UN General Assembly, 2014), governments around the world have already recognized that the current development paths are unsustainable and that new governance mechanisms need to be envisioned to promote sustainable development - sustained

DOI: 10.4018/978-1-5225-0245-6.ch011

and inclusive economic growth, social development and environmental protection. In particular, one of the major governance goals for achieving sustainable development is to develop more fair, equitable and inclusive societies, where the voice and needs of all stakeholders are heard and considered. For this reason, stakeholder engagement is at the core of most government initiatives in the post-2015 age.

The voice and needs of government stakeholders are usually contradictory, since they usually represent opposed interest from different groups - e.g. on the one hand, businesses are interested in pursuing economic development, while on the other hand, environmentalists are concerned with protecting natural resources against blind economic interests. Developing new governance mechanisms contributing to bridge differences among stakeholders' needs pose various types of challenges - technical, political, organizational, etc.; that governments need to overcome. At the same time, Information and Communication Technologies (ICTs) offer new and innovative solutions that governments can adopt to resolve some of such technical and governance-related challenges.

Within the scenario described above, a fundamental need for policy makers and government decision makers is to back their decisions and agreements on arguments and opinions provided by citizens. They might even argue with other policy makers about why making a particular decision is advisable (e.g. "according to the last poll, 80% of the people are against the health system reform; therefore, the reform should not be carried out"). From this perspective, new ICTs used by citizens in their daily lives, like Facebook and Twitter provide a unique opportunity for governments to leverage on technologies already infused and adopted by the society, providing a knowledge base from which information could be collected and analyzed in order to provide inputs and partially automatize government decision making processes. In particular, tweets have a rich structure, providing a number of record fields which allow to detect provenance of the tweet (author), number of re-tweets, followers, etc.

Aware about the need for citizen participation, governments at different levels - national, regional and local, in most countries are seeking their participation through the use of ICTs (Electronic Participation or e-Participation). Most e-Participation initiatives nowadays take place within ad-hoc platforms which provide suitable channels for efficient electronic communication and coordination connecting the involved stakeholders (e.g. government-citizens, government-business, citizens-citizens, partner-business, etc.). Nevertheless, such platforms do not provide suitable and generic components to model and process emerging *collective thinking patterns* in communities; although understanding such patterns is a mainstream trend nowadays in daily life, particularly through the widespread use of social media and their support by mobile technologies. Collective thinking patterns could correspond to ideas, proposals, criticisms or viewpoints, which decision makers can identify and confront based on atomic, individual inputs from citizens and users, such as tweets, Facebook posts, web-based product reviews, etc. Such patterns can take place in different policy contexts associated with social innovation and change, e.g. crowdfunding initiatives, citizen journalism, cyberactivism, etc.

Government 2.0 refers to government's adoption of Web 2.0 technologies to socialize government services, processes, and data, improving relationships between government and the governed. Enabling new communication channels - such as social media, wikis, blogs, and others; and two-way communication - enabling to push and pull information to and from citizens; Government 2.0 provides new mechanisms for government agencies to: 1) increase transparency –bringing public sector agenda and government activities closer to citizens; 2) facilitate participation –engaging citizens in government decision- and policy-making processes; and 3) enhance service delivery –pushing service-related information and gathering citizens' opinions about service delivery to design customer-oriented public services that better serve their needs.

19 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:
www.igi-global.com/chapter/opinion-aggregation-and-conflict-resolution-in-e-government-platforms/150046

Related Content

Ego Meets Alter and Alius on the Marketplace: New Directions in the Cultural Semiotics of Brand Communication

Göran Sonesson (2017). *International Journal of Semiotics and Visual Rhetoric* (pp. 55-78).

www.irma-international.org/article/ego-meets-alter-and-alius-on-the-marketplace/191271

Hyperliterature and Intermediality in the Expansion of Literary Production

Luci Collin (2019). *International Journal of Semiotics and Visual Rhetoric* (pp. 75-89).

www.irma-international.org/article/hyperliterature-and-intermediality-in-the-expansion-of-literary-production/232274

Ubuntu in the Diaspora: Its Conservation and Comparison With Other World Views

Fatuma Namisango, Sarah Eyaa, Peninah Kansiime and Sharlotte Tusasiirwe (2021). *Understanding Ubuntu for Enhancing Intercultural Communications* (pp. 228-242).

www.irma-international.org/chapter/ubuntu-in-the-diaspora/276735

Social Media-Based Visual Strategies in Tourism Marketing

Jing Ge and Ulrike Gretzel (2018). *International Journal of Semiotics and Visual Rhetoric* (pp. 23-40).

www.irma-international.org/article/social-media-based-visual-strategies-in-tourism-marketing/221148

"The [Expletive] Thing Seems to Have a Mind of Its Own!": Intrapersonal Communication/Cognition and Improvement of ICT, Including AI

(2022). *A Social-Scientific Examination of the Dynamics of Communication, Thought, and Selves* (pp. 147-154).

www.irma-international.org/chapter/the-expletive-thing-seems-to-have-a-mind-of-its-own/306932