Social Innovation Meets Social Media: A Framework Proposal

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Abstract

In this paper, we describe the motivations for the organization of the SISoM-workshop on Social Innovation and Social Media, held in the context of the ICWSM 2011. We argue that social innovation and social media, two trends, that have started independently, are bound to increasingly overlap. Social innovators, as well as the growing number of public administrations fostering social innovation, regard social media as a potentially powerful communication and coordination tool. At the same time, it is argued that they will require functionalities and implement practices which differ from those prevalent in the most popular general purpose social media platforms. A theoretical framework and an initial set of research questions are proposed in order to address those matters, which are partially covered by the papers accepted as contributions to the workshop.

Introduction

Social causes for Social Media

Social Media, an 'umbrella term' that encompasses a variety of online platforms where people create, share, comment and distribute content, is rapidly growing to become one of the most popular categories among the activities on the Internet.

The availability of social media, which enables many new options for online interaction and content creation for all kinds of users, has increased the expectations of citizens and other stakeholders in terms of their interaction with public authorities.

As it could be expected, most of the interest in exploiting the potential of the social media is initially coming from the consumer businesses, along with the marketing, advertising and the communications industry servicing them.

A substantial research effort is being organized in the USA around the "enormous opportunity to harness and shape technology-mediated social participation (TMSP) systems" to address national priorities [1]. Its ultimate objective is to create new architectures for the online public spaces that allow citizenship at large to contribute to vital community and national projects.

In Europe, the European Commission has declared as an objective to "empower citizens and business by eGovernment services *designed around users' needs and developed in collaboration with third parties*, as well as [...] effective means for involvement of stakeholders in the policy process" [2].

This reasoning can be extended to a global scale. A recent report from the World Economic Forum [3] places the risk of a "global governance crisis" as one of the global risks with higher probability and higher impact. Proper usage of social media could well alleviate that risk, which can reproduce itself locally in countries and cities worldwide as public authorities struggle to find institutional responses to new socio-economic challenges.

Nevertheless, as expressed by the European Commission [2], there is still a need "to move towards a more open model of design, production and delivery of online services, taking advantage of the possibility offered by collaboration between citizens, entrepreneurs and civil society".

Meeting this kind of objectives will require going beyond existing social media platforms, currently mostly designed and managed for leisure activities. When, at the time when the current financial crisis was just emerging, the President of the World Bank expressed that "We need a Facebook for multilateral economic diplomacy" [4], it was understood that something as Facebook, but with suitable attributes to be specified and managed with different objectives, would be an appropriate tool.

Social Innovation

Social innovation is a hot new trend; it is a buzzword that is popping up in the popular press (e.g. [4], [5]), the blogosphere (e.g. [7], [8]), and books (e.g. [9]). In a recent report commissioned by the Bureau of European Policy Advisors, the Social Innovation eXchange (SIX), an online network of self-proclaimed social innovators, has defined social innovation as "the processes of invention, diffusion and adoption of new services or organizational models, whether in the non-profit, public or private sector. It also

describes the outcome – the service or model being developed" [10].

As a consequence of the current economic downturn, governmental agencies all around the globe are faced with growing budgetary constraints. Governments must look for ways to cut costs; one area of potential savings is in the provision of social services. Social innovation appears as an unprecedented approach to providing much-needed social services. Therefore, Governments seek to partner with 'social entrepreneurs' in both the private and non-profit sectors in order to develop novel solutions to social problems.

Evidence is beginning to accumulate that this new approach does work ([9], [10]). However, it has also become clear that there is a great deal of room for growth and improvement. As noted in a recent article in The Economist [6], social innovation suffers from a problem of 'speed and scale'. But it can be reasonably expected that appropriate applications of the potential of social media for diffusion, collaboration and coordination could help addressing this problem.

State of the art

Bottom-up collaboration

A key barrier to success has been the failure of many social innovation initiatives to leverage the "bottom-up" power of networks to foster the innovation process. This oversight is particularly noticeable in the government sector. Bureaucratic inertia has kept traditional, top-down processes in place, and as a result innovation has suffered. Governments want to embrace the social innovation phenomenon, but their existing processes are in many occasions standing in the way (e.g. [11] from the European Commission).

One of the main research question is how to improve the success of social innovation initiatives by supporting collaboration among the disparate players who must work together to bring these projects to bear. While the importance of establishing networked collaboration for successful innovations has been demonstrated across a variety of sectors ([12], [13]), there is still a lack of understanding regarding how best to support this process in the social arena.

A very relevant body of empirical and theoretical knowledge has been accumulated during the last sixty years on the institutional arrangements for governing public goods and common-pool resources at multiple scales ([14], [15]). They have led to realize that "the earlier theories of rational, but helpless, individuals who are trapped in social dilemmas" are not supported by empirical studies. Rather to the contrary, research has unveiled rules and conditions under which those involved in those public goods dilemmas are able to self-organize and achieve sustainable long-term results. The classic dichotomy of considering people only as consumers or as occasional voters can be revoked. The same can be said about the classic dichotomy between government intervention or market 'laissez-faire'. Both are being superseded by the increasing push towards alternative social innovation policies and practices [9].

A substantial number of the rules and conditions underlying successful cases of self-organization and collective action are dependent on the communication mechanisms available to the community involved. Individual behavior is, among other things, strongly affected by the perception about the context in which the interactions take place, which is strongly affected by the information available to every individual in his or her particular context. 'Cheap talk' increases cooperation.

More specifically, it has been empirically demonstrated [14] that the success of collaborative bottom-up organizations depends on a variety of factors on which the available communication capabilities have a decisive influence. Those include, among others, the requirements that (a) Communication is feasible with the full set of participants; (b) Reputation of the participants is known; (c) There are clear entry or exit capabilities; (e) Most individuals affected by the resource regime are authorized to participate in making and modifying the rules, which should be congruent with the local social conditions, and may include sanctions [16].

It is therefore intuitively obvious that the widespread availability of 'social computing' mechanisms will have a significant impact fostering "bottom-up" networks of innovation and collaboration that incorporate a wide array of diverse parties, including social entrepreneurs, communities, non- and for-profit organizations, and government agencies.

Although it can be expected that only a minority of citizens will initially engage themselves as social innovators and social entrepreneurs, one of the inescapable tasks of social innovation will be to nudge wide sectors of society into embracing new cultures and adopting new practices towards the issues addressed by public policies. The sustainability of the public health systems, for instance, will depend to a large degree on factors related to the local societal culture, like the health practices of individuals as well as on their attitudes and expectations towards the delivery of health services [17].

Again, the evidence gathered by researchers in behavioral economics points out the relevance of horizontal communication as one of the key levers influencing the behavior of individuals [18]. In parallel, their research also unveils the limitations and risks of applying the current generation of 2.0 tools to the often simplistic cliché expec-

tations about the "wisdom of the crowds" and similar metaphors ([19], [20]).

Social Media for collaborative processes

The potential of social computing as a lever for social innovation has been widely recognized in principle (see for instance [21]). But, in the same way that "one-size-fits-all" organizational schemes are not adequate to tackle the variety of existing and emerging social policy problems [14], it cannot be reasonably expected that the simplest, most largely available social media platforms (such as Facebook, Twitter and the like) will be the optimal ICT tools for addressing those problems. As stated in a recent report: "[although] current designs for social media [...] are and excellent starting point, *extensive research is needed* to build upon these media and tools to foster wider participation, support increasingly sophisticated interaction and accomplishments and address potential dangers" [1].

It might be significant, at least on an anecdotal level, to note that one of the founders of Facebook, and a the key person behind the success of www.BarackObama.com during the Obama campaign [22], has just started a new social media platform (www.jumo.com) addressed to people "who want to change the word". The implication, backed by many survey data, is that Facebook and similar platforms are perceived, and probably designed to be so perceived, mainly as an entertainment (as well as a support for marketing and advertising). There is also a growing concern about the privacy policies and practices of companies such as Facebook and its future evolution.

A number of initiatives are taking place in order to change this state of affairs and confront the inherent challenges. The European Commission, for instance, is funding the project CROSSROAD [23], which aims to build a roadmap for the research in the domain of ICT for Governance and Policy Modelling. The project has already identified several relevant gaps, some of them regarding the technology for 'social computing' and citizen engagement.

Among those related to social media are the need for: (a) Small and large scale argument support systems based on approaches such as collaborative filtering; (b) High-quality expertise identification through reputation management, including advanced detection of unfair rating; (c) Modeling and prediction tools that allow identifying genuine and relevant warning signals extracted from large-scale network data; (d) Tools and techniques that enable reliable aggregation of individual preferences while reducing the risk of manipulation by interested parties; (e) Tools and methods that ensure the interaction and integrated design of online and offline participation on all the levels of governance; (f) Extend current political systems and the role of the different stakeholders to the Social media while at least maintaining their current level of acceptability.

On the other hand, empirical research [20] highlights the obstacles that seldom impair group deliberations to obtain better results than those that would derive from independent consultations with individual experts. As those difficulties increase with the size of the group, there seems to be some cause for caution when expecting citizen participation in public affairs to produce the beneficial effects expected by the proponents of the 'wisdom of the crowds' (e.g. [24]). Analytical techniques need to be developed in order to identify those risks and to detect non desirable interactive patterns as early as possible, in order to take corrective action.

Accordingly, it has been proposed [1] to investigate "effective Techology Mediated Social Media Participation (TSMP) designs [that] improve usability and sociability to better engage people with diverse motivations, experiences, perspectives, skill and knowledge and to create the conditions for citizens to participate, connect and undertake constructive action. The goal is to *create new architectures for the online public spaces* that energize the population to contribute to vital community and national progress".

Some of those new architectures are already being explored, albeit in fragmentary fashion. Jumo (www.jumo.com), for instance, is a private initiative which intends to become a "social network connecting individuals and organizations who want to change the world with their time, money and skills"; Diaspora (www.joindiaspora.com) is constructing an open source social networking platform which promises to give users full control of their contributed content; Quora (www.quora.com) is a collaboration site that organizes questions and answers contributed by its users; Spigit (www.spigit.com) offers a platform for collaboration and crowdsourcing for business environments that integrates social networking with more specialized functionalities like prediction markets.

There are many other smaller or lesser known initiatives. Overall, the precise definition of new TSMP architectures complying with the empirically established requirements for effective and sustainable bottom-up collaboration appears yet to be an open question.

Summary

Based on the above, the joint scenario for social innovation and social media could be summarized as follows:

(1) Many conventional, top-down, public policies do not yet take enough on account the potential benefits of social innovations.

(2) Social Innovation can be and will be a key ingredient to the solution of new and existing societal problems, but needs improvements in speed and scale.

(3) Technology-mediated social participation (TMSP) could provide platforms and tools supporting social innovation to grow more effective and at a larger scale.

(4) Existing Social media tools will need to be adapted or redesigned for a TMSP directed to social innovation.

Research questions

The objective of the SISoM-workshop is to debate how the full potential of social media can be harnessed to support large-scale and time-efficient social innovations. The workshop will explore two dimensions along which research might help social innovation to take place at a larger scale: (a) The conceptual and computational development of new frameworks for public policy modeling and implementation to help public authorities to harness the full potential of social media and social innovation; (b) The design of new social media tools offering better support for more sophisticated interactions.

An initial, tentative set of research questions to be explored includes the following:

RQ1. Which are the characteristics of the outstanding policy questions which would make them more amenable to be helped by social innovation?

RQ2. What is the current perception by policy makers of the potential of social innovation to address outstanding social and policy problems? Which are the social and policy challenges? Which are the technological challenges?

RQ3. Which are the conceptual stages of policy making and/or implementation in which social innovations could potentially have greater impact? (e.g. identification of problems and issues, policy design, modeling and simulation, implementation, management, ...)

RQ4. Which are the functional primitives of Social media that would be potentially most relevant for fostering social innovations in the public policy domain? What would be the requirements? How can the performance of currently available platforms, tools and services be measured and compared to those requirements?

RQ5. How can the results of Elinor Ostrom and others regarding the rules and conditions that allow bottom-up organizations to succeed be potentially translated to social scenarios in which social media technologies would be widely available?

RQ6. Which modeling strategies and tools would be best suited to model the potential impact of social media on policy design, evaluation and implementation? (e.g. increased user feedback, distributed coordination and management).

RQ7. What would be the functional and performance requirements of a future social media toolbox that would be useful for policy practitioners to better exploit the potential of social innovation?

Initial contributions to SISoM

The contributions accepted to the SISoM-workshop include a wide variety of fields and approaches, ranging from technological to social, theoretical, practical and methodological questions.

The keynote speech will combine these aspects, presenting the practical experience of the Social Innovation Camp (http://www.sicamp.org/) in an interdisciplinary frame of theoretical and methodological reflections.

The six papers which have been admitted to the workshop cover some of the specific aspects of the field of social innovation and social media, offering a first insight in this new emerging research field.

Two papers [(25), (26)] focus on specific technological tools -such as a bias-free evaluation method for tweeted contents and the use of Social and Semantic Web technologies to support e-brainstorming- to better support innovation processes and community engagement. Two additional papers [(27), (28)] study specific social processes, such as information markets for social participation and community engagement through social media, and their possible contributions to public policy design and social innovation. Further on, two other papers [(29), (30)] discuss more general research questions, one proposing a multi-layered analytic framework on how social media can be strategically employed to promote social innovation and the other one distinguishing between the technological and social dimensions of innovative processes.

The formal objective of the workshop is the collaborative drafting of a Manifesto on Social Media for Social Innovation, summarizing the challenges and proposals that will be discussed with the participants.

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