Participation in Online Social Networks: Theories and Models

Giulio Angiani, Department of Information Engineering, University of Parma, Parma, Italy
Paolo Fornacciaro, Department of Information Engineering, University of Parma, Parma, Italy
Eleonora Iotti, Department of Information Engineering, University of Parma, Parma, Italy
Monica Mordonini, Department of Information Engineering, University of Parma, Parma, Italy
Michele Tomaiuolo, Department of Information Engineering, University of Parma, Parma, Italy

ABSTRACT

Why and how more and more people get involved and use social networking systems are critical topics in social network analysis (SNA). As a matter of fact, social networking systems bring online a growing number of acquaintances, for many different purposes. Both business interests and personal recreational goals are motivations for using online social networks (OSN) or other social networking systems. The participation in social networks is a phenomenon which has been studied with several theories, and SNA is useful for common business problems, e.g., launching distributed teams, retaining people with vital knowledge for the organization, improving access to knowledge and spreading ideas and innovation. Nevertheless, there are some difficulties, such as anti-social behaviors of participants, lack of incentives, organizational costs and risks. In this article, a survey of the basic features of SNA, participation theories and models are discussed, with emphasis on social capital, information spreading, motivations for participation, and anti-social behaviors of social network users.

KEYWORDS

Online Social Networks, OSN, SNA, Social Network Analysis, Social Networking

INTRODUCTION

Widespread participation to online social networks has rapidly become a matter of fact, worldwide. In fact, social networking systems attract billions of people all around the world. Many of them -- from several different social groups, regardless of age, gender, education, or nationality -- participate daily in social online activities. While some systems are dedicated to some specific scope, most of them instead blur the distinction between the private and working spheres, and users are known to use such systems both at home and on the work place both professionally and with recreational goals. For example, the chat systems, that are embedded in social networking platforms and may be used to organize a birthday party, are often the most practical way to contact a colleague to ask an urgent question, to organize a work meeting, or a formal event with colleagues, especially in

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technologically oriented companies. At the same time, several traditional information systems have been modified in order to include social aspects. Currently, social networking platforms are mostly used without corporate blessing, maintaining their status as feral systems. In fact, the attitude of firms and organizations is quite varied: in some cases, external social networking platforms are tolerated or even encouraged (e.g., Facebook was available for Microsoft and Apple employees before the general public launch), at least for specific purposes (Millen et al., 2006); in other cases, internal tools are promoted or imposed (DiMicco & Millen, 2007).

While the phenomenon of online social networking is relatively new, however to understand some of its dynamics, it is necessary to use analytical models, based on both network topology and users’ own interests. For example, according to DiMicco (2008), most users that use social networking platforms for work purposes are mostly interested in accumulating social capital, either for career advancement or to gather support for their own projects inside the company. In fact, in order to understand how a social network could be used to increase interactions, information sharing and benefits in teams and organizations, it is useful to refer to Social Network Analysis, a set of data analysis techniques that focuses on the structural and topological features of the network (Otte, 2002). Also, participation in such networks has long been studied as a social phenomenon according to different theories. Understanding the status of a social network, or the usage pattern of an online social networking platform, requires study of the system according to both static and dynamic models. Moreover, the theories of participation in social networks allow not only to study, but also to guide the dynamics of a given social network.

The review is organized in the following way. First of all, we will describe the different kinds of virtual communities, social media technologies and applications which are available. Then, we will focus on models and theories of participation in social media, discussing also various models of information spreading and the issue of anti-social behaviours. We will then highlight the challenges faced by organizations and firms in adopting social media, either in internal or public way. Finally, we will provide some concluding remarks.

TECHNOLOGIES FOR SOCIAL ONLINE COLLABORATION

In general, Computer-Mediated Communication (CMC) is defined as any human communication that occurs through the use of two or more electronic devices (McQuail, 2005). Through CMC, users are able to create various kinds of virtual communities, i.e., networks of users whose connections mainly exist online. In the following paragraphs we discuss the features of the most typical kinds of virtual communities: (i) Virtual Organizations, (ii) Virtual Teams, and (iii) online Networks of Practice.

Types of Virtual Communities

Although there are several differences that clearly set the concepts apart, different kinds of virtual communities may share some common traits, including (i) the lack of central authority, (ii) their temporary and impromptu nature, and (iii) the importance of reputation and trust as opposed to bureaucracy and law.

According to the definition given by Mowshowitz (1994), a virtual organization is “...a temporary network of autonomous organizations that cooperate based on complementary competencies and connect their information systems to those of their partners via networks aiming at developing, making, and distributing products in cooperation.” The term was then popularized by the Grid Computing community, referring to Virtual Organizations as “…flexible, secure, coordinated resource sharing among dynamic collections of individuals, institutions, and resources...” (Foster et al., 2001). The premise of Virtual Organizations is the technical availability of tools for effective collaboration among people located in different places, but their definition also emphasizes the possibility to share a large number of resources, including documents, data, knowledge and tools among interested people (Poggi & Tomaiuolo, 2010; Bergenti et al., 2005). Their importance is sustained by continuing trends in
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