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Book Review

Virtual Communities, Social Networks and Collaboration, Series: [Annals of Information Systems](#), Vol. 15. Edited by Athina A. Lazakidou. New York: [Springer](#), 2012. XII, 249 p. 55 illus. Softcover. ISBN: 978-1-4614-3633-1; EISBN 978-1-4614-3634-8; ISSN: 1934-3221; EISSN 1934-3213 DOI: 10.1007/978-1-4614-3634-8; \$76.50.

This book tries to cover all aspects of virtual communities among virtual participants through a collection of inclusive, informative and far-reaching of 13 chapters and 239 pages including preface, a comprehensive table of contents, references and contributors. Comprehensive surveys on the topic of virtual communities, social networks and collaboration are presented in this series. The book is the volume 15 of Annals of Information Systems as an international project of 8 countries. "Ramesh Sharda" and "Stefan Voß" are the main series editors.

In the "*preface*", the editor (Athina A. Lazakidou) has expressed that virtual communities are new technologies to facilitate communication and collaboration. This book aims to presents various studies from leading researchers and practitioners focusing on the current challenges, directions, trends, and opportunities associated with virtual communities and their supporting technologies. She believes that further research in this area is required.

The first chapter "*Health-Related Virtual Communities and Social Networking Services*" outlines description of virtual communities (VCs) as tools to promote treatment strategies in order to sustain healthy lifestyle changes and improve access to health-care-related information. Some peer-to-peer virtual healthcare communities such as PatientsLikeMe, HealthCentral and CureTogether are introduced in this chapter as well. Through the second chapter "*Emergent Evaluation Criteria for Collaborative Learning Environment*" CEVEs (Collaborative Educational Virtual Environments) are introduced as powerful collaborative environments for e-learning. Pre-analysis phase, usability phase and learning phase are expressed as three phases in each evaluation cycle. Finally, the writer concludes that collaborative argumentation is suitable for adapting design principles because it brings to the fore the differing beliefs and knowledge of diverse stakeholders. The third chapter, "*Evaluating and Enriching Online Knowledge Exchange: A Socio-epistemological Perspective*" applies approaches from social epistemology and social psychology to study online knowledge systems. Some key thinkers with their approaches in this field are introduced that finally resulted in the acceptance of Goldman's framework. This chapter also discusses motivators of knowledge sharing, knowledge acquisition methods, the role of norms in knowledge sharing as well as assessment and improvement of knowledge exchange systems. Finally, freedom from pre-existent, technical and emergent biases is discussed as a crucial goal for the development of any socio-technical system.

"*Organizational Design of Online Communities*" is explored in chapter 4. It addresses the endeavor of creating meaningful and vibrant online communities in terms of simplicity, tangible values, and engagement with focusing on two areas of the organizational design, governing parameters (domain, actors) and engagement patterns. Further, two types of

design patterns that foster seamless social engagement for the social informatics service of the online community, named horizontal and vertical, are proposed in this section. The 5th chapter entitled "*A Security Model for Virtual Healthcare Communities*" that presents a security-enabled architecture for a virtual healthcare community. This chapter also capitalizes on widely accepted security standards (the ISO 27000 family of standards) and provides a roadmap for developing a secure solution. Lastly, several potential threats for the community, with reference to real cases are presented, with focus on the mechanisms of the community's security infrastructure that are activated to confront them.

"*Cybernationalism: Terrorism, Political Activism, and National Identity Creation in Virtual Communities and Social Media*" are discussed in chapter 6. The majority of this chapter is to focus on laying the foundation for a theoretical interpretation of why virtual communities act as miniature nationalist congregations. The chapter will then shift to empirically evidencing the theoretical framework. Generally, three popular types of cybernationalism (terrorism, political activism, and ethnic-identity production) related to social media and virtual communities are explained. Finally, the chapter explores how social media and virtual communities participation is conducive to the spreading of nationalism crucial to the developments of social movements. The 7th chapter "*E-Government and Data Protection in the Public Sector*" denoted that security measures can be categorized into three major groups: physical, personal, and network measures. Within each group, security measures' objectives can be further classified into confidentiality, integrity, and availability of the data and system. Also, vulnerability is the weakness of information systems which can lead to attacks, harm, modification, destruction, disclosure, interruption, and interception. Moreover, some thoughtful and precise policy positions and legislation for governments are outlined. In chapter 8, "*Building SCIENAR, a Virtual Community of Artists and Scientists: Usability Testing for the System Improvement*" is explored. This chapter provides an overview about the developing process adopted to create and to improve SCIENAR VC. Through the chapter, research design (aim of the study, subjects, materials and procedure) is explained in detail. Moreover, particular attention is given to illustrate some perspectives for future works. Finally, it deals with the usability study carried out to individuate problems and strong points of the developed VC.

Chapter 9 entitled "*User-Generated Content for Location-Based Services: A Review*". This chapter aims to provide a holistic view of how User-Generated Content (UGC) has been used in the field of Location-Based Services (LBS). The chapter also discusses the differences between conventional LBS and VGI-based LBS, as well as the implications of using UGC/VGI (Volunteered Geographic Information) in LBS. Different types of VGI-based LBS to understand how UGC/VGI has been used are explained. The three general requirements of VGI-based LBS are listed, namely, information trust, user's privacy protection, and information classification. Finally, some prominent issues including infringement of copyright and the liabilities of the service provider are detected. At the end, the state-of-the-art solutions for fulfilling these requirements are listed and discussed. Chapter 10 "*Generating Social Awareness through Social Network Sites*" introduces a case study. It was conducted on the "return of the Parthenon Sculptures from the British Museum in London to the Acropolis Museum in Athens" using the data collected directly from the Facebook and a small group of interviewees. Results of the case study showed that social awareness can in fact be generated with the use of social media websites like Facebook. The following chapter (11) is "*Markov Random Field and Social Networks*". Through a brief introduction, it is explained that the Bayesian approach to reconstruction in spatial processes involves the modeling of prior information as local characteristics of the spatial process, introducing Markov random field. So consequently, the chapter focuses on this model and introduces it based on the total variation of the region, considering smoothness assumptions and MRF models that can be applied to investigate the spatial connectivity between nodes. Finally, some classes of estimations have been introduced

using the Gibbs sampler. The 12th chapter is entitled "*Mobile Communities – Current Status and Challenges*". Evolution of mobile data services and mobile collaboration model as a semantic graph is presented through this chapter. Following the mobile community model, cluster services according to their purposes are explained too. Lastly, adequate hardware, adaptive communication infrastructures, appropriate software services, location and context awareness, as well as user profiling and interaction are depicted as the most important issues that need to be considered in mobile communities.

Chapter 13th entitled "*Social Networks in Environmental Epidemiology*". In this chapter, a general introduction of the social epidemics via environmental epidemiology is represented. Combination between environmental epidemics (virus spreading) and social networks is explained involving Markovian and Bayesian statistical methodology. It is noted that there is considerable variety of statistical methods that have been applied in the analysis of spatial variation in ecological data, Markov chain geostatistics (MCG) is introduced as a new non-kriging geostatistics. Finally, it is confirmed that spatial connectivity and variability between neighborhood structures inside the social networks can be applied considering geostatistical tools (like kriging or variograms).

To conclude, this new book is as an excellent interdisciplinary source of comprehensive knowledge and literature topics related to virtual communities, social networks, and collaboration. It is highly recommended to all librarians, information scientists, social network analysts, researchers, social activists, policymakers, legislators, social decision makers and various professionals due to professional discussions about technical problems of technology application and social issues arising from it. The book provides a great framework for thinking about impacts of technology, online communities and social networks on peoples' life. Moreover, mentioned topics can inform readers of conventional challenges about virtual communities. One of the strong points of the book is the title that is an indication of its contents as well as rich and up-to-date references at the end of chapters that indirectly lead readers to further details and more information resources. There is a logical relationship between chapters of the book. However, it could not be expected for these kinds of books with lots of separated chapters to have obvious integration, but because of good and careful edition, there is a sort of subjective solidarity through it. The writing style of this book is clear, fluent and almost easy to understand. Explanations are adequately meaningful and comprehensible. There is no index for names of authors or keywords of the articles to help readers in order to find their favorite subjects or authors. It is suggested to outline subject and author indexes in next editions.

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