Annals of Information Systems

Volume 15

Series Editors
Ramesh Sharda
Oklahoma State University
Stillwater, OK, USA

Stefan Voß
University of Hamburg
Hamburg, Germany

For further volumes:
http://www.springer.com/series/7573

Athina A. Lazakidou
Editor

Virtual Communities, Social Networks and Collaboration

Springer

Editor
Athina A. Lazakidou
Department of Nursing
University of Peloponnese
Sparti, Greece

ISSN 1934-3221 ISSN 1934-3213 (electronic)
ISBN 978-1-4614-3633-1 ISBN 978-1-4614-3634-8 (eBook)
DOI 10.1007/978-1-4614-3634-8
Springer New York Heidelberg Dordrecht London

Library of Congress Control Number: 2012939526

© Springer Science+Business Media New York 2012
This work is subject to copyright. All rights are reserved by the Publisher, whether the whole or part of the material is concerned, specifically the rights of translation, reprinting, reuse of illustrations, recitation, broadcasting, reproduction on microfilms or in any other physical way, and transmission or information storage and retrieval, electronic adaptation, computer software, or by similar or dissimilar methodology now known or hereafter developed. Exempted from this legal reservation are brief excerpts in connection with reviews or scholarly analysis or material supplied specifically for the purpose of being entered and executed on a computer system, for exclusive use by the purchaser of the work. Duplication of this publication or parts thereof is permitted only under the provisions of the Copyright Law of the Publisher's location, in its current version, and permission for use must always be obtained from Springer. Permissions for use may be obtained through RightsLink at the Copyright Clearance Center. Violations are liable to prosecution under the respective Copyright Law.
The use of general descriptive names, registered names, trademarks, service marks, etc. in this publication does not imply, even in the absence of a specific statement, that such names are exempt from the relevant protective laws and regulations and therefore free for general use.
While the advice and information in this book are believed to be true and accurate at the date of publication, neither the authors nor the editors nor the publisher can accept any legal responsibility for any errors or omissions that may be made. The publisher makes no warranty, express or implied, with respect to the material contained herein.

Printed on acid-free paper

Springer is part of Springer Science+Business Media (www.springer.com)

Preface

Online communities are among the most obvious manifestations of social networks based on new media technology. Facilitating ad hoc communication and leveraging collective intelligence by matching similar or related users have become important success factors in almost every successful business plan.

This special issue addresses the virtual communities and collaboration among virtual participants currently proliferating across the world. Many online communities have been created to facilitate communication, enhance or express relationships, work in a common cause, seek entertainment, and network or mentor others. Others have been formed to facilitate tasks already being performed but now needing to be done virtually. Such communities and online groups span various boundaries and include networked employees, videoconferencing, gaming setups, and electronic community groups pursuing such diverse activities as friendshipping, planning, information sharing, collaborating, system developing, having fun, and advertising. Various technologies are involved, from Facebook and Twitter to teleconferencing to mobile phones and PCs.

Researchers are just beginning to understand virtual communities and collaborations. Many issues need further study, including group dynamics and outcomes, social networking implications, technical support features, group coherence and loyalty, and how organizations can better utilize the potential benefits of such communities in both internal operations and in marketing and new product development. What leads to participation and effective collaboration in these communities needs further study, as do the issues of how and why knowledge is shared among participants. Much additional research in this area is needed.

This new book presents studies from leading researchers and practitioners focusing on the current challenges, directions, trends, and opportunities associated with virtual communities and their supporting technologies.

This new book will be an excellent source of comprehensive knowledge and literature on the topic of virtual communities, social networks, and collaboration.

All of us who worked on the book hope that readers will find it useful.

Sparti, Greece — Athina A. Lazakidou

About the Editor

Athina A. Lazakidou, Ph.D., currently works at the University of Peloponnese, Department of Nursing, in Greece, as a lecturer in health informatics. She worked as a visiting lecturer at the Department of Computer Science at the University of Cyprus (2000–2002) and at the Department of Nursing at the University of Athens (2002–2007). She did her undergraduate studies at the Athens University of Economics and Business (Greece) and received her B.Sc. in Computer Science in 1996. In 2000, she received her Ph.D. in Medical Informatics from the Department of Medical Informatics, University Hospital Benjamin Franklin at the Free University of Berlin, Germany. She is also an internationally known expert in the field of computer applications in health care and biomedicine, with six books and numerous papers to her credit. Her research interests include health informatics, hospital and clinical information systems, e-learning in medicine, software engineering, graphical user interfaces, (bio)medical databases, clinical decision support systems, electronic medical record systems, telematics, and other web-based applications in health care and biomedicine.

Contents

1 Health-Related Virtual Communities and Social Networking Services 1
Stamatia Ilioudi, Athina A. Lazakidou, Nick Glezakos, and Maria Tsironi

2 Emergent Evaluation Criteria for Collaborative Learning Environment 15
Ibrahiem M.M. El Emary

3 Evaluating and Enriching Online Knowledge Exchange: A Socio-epistemological Perspective 35
Paul Matthews and Judith Simon

4 Organizational Design of Online Communities 61
Nick Glezakos and Athina A. Lazakidou

5 A Security Model for Virtual Healthcare Communities 75
Anargyros Chryssanthou, Iraklis Varlamis, and Charikleia Latsiou

6 Cybernationalism: Terrorism, Political Activism, and National Identity Creation in Virtual Communities and Social Media 115
Matthew F. Palmer

7 E-Government and Data Protection in the Public Sector 135
Mary Lampri

8 Building SCIENAR, a Virtual Community of Artists and Scientists: Usability Testing for the System Improvement 147
Iole Alfano, Manuela Carini, and Lorella Gabriele

9 User-Generated Content for Location-Based Services: A Review 163
Lee Fueng Yap, Masahiro Bessho, Noboru Koshizuka, and Ken Sakamura

10 Generating Social Awareness Through Social Network Sites..... 181
Penelopi Alexandrou

11 Markov Random Field and Social Networks..... 207
Stelios Zimeras

12 Mobile Communities – Current Status and Challenges..... 221
Volkmar Schau, Kathrin Kirchner, Christian Stolcis, Christian Erfurth, Gerald Eichler, and Wilhelm R. Rossak

13 Social Networks in Environmental Epidemiology 239
Stelios Zimeras and S. Geronikolou

Contributors

Penelopi Alexandrou Kingston University, London, UK

Iole Alfano University of Calabria, Cosenza, Italy

Masahiro Bessho Interfaculty Initiative in Information Studies, The University of Tokyo, Tokyo, Japan

Manuela Carini University of Calabria, Cosenza, Italy

Anargyros Chryssanthou Auditors Department, Hellenic Data Protection Authority, Ampelokipoi, Athens, Greece

Gerald Eichler Telekom Innovation Laboratories, Darmstadt, Germany

Ibrahiem M.M. El Emary Information Technology Deanship, King Abdulaziz University, Jeddah, Kingdom of Saudi Arabia

Christian Erfurth University of Applied Sciences Jena, Jena, Germany

Lorella Gabriele University of Calabria, Cosenza, Italy

S. Geronikolou Biomedical Research Foundation of Academy of Athens, Athens, Greece

Nick Glezakos Department of Nursing, Faculty of Human Movement and Quality of Life Sciences, University of Peloponnese, Sparti, Greece

Stamatia Ilioudi Department of Nursing, Faculty of Human Movement and Quality of Life Sciences, University of Peloponnese, Sparti, Greece

Kathrin Kirchner Friedrich Schiller University of Jena, Jena, Germany

Noboru Koshizuka Interfaculty Initiative in Information Studies, The University of Tokyo, Tokyo, Japan

Mary Lampri Data Processing and Automation Division, Supreme Council for Civil Personnel Selection, Athens, Greece

Charikleia Latsiou Auditors Department, Hellenic Data Protection Authority, Ampelokipoi, Athens, Greece

Athina A. Lazakidou Department of Nursing, Faculty of Human Movement and Quality of Life Sciences, University of Peloponnese, Sparti, Greece

Paul Matthews Department of Computer Science and Creative Technologies, Faculty of Environment and Technology, University of the West of England, Bristol, UK

Matthew F. Palmer Department of Comparative and International Education, Lehigh University, Bethlehem, PA, USA

Wilhelm R. Rossak Friedrich Schiller University of Jena, Jena, Germany

Ken Sakamura Interfaculty Initiative in Information Studies, The University of Tokyo, Tokyo, Japan

Volkmar Schau Friedrich Schiller University of Jena, Jena, Germany

Judith Simon Department of Philosophy, University of Vienna, Austria & Institute for Technology Assessment and Systems Analysis, Karlsruhe Institute of Technology, Germany

Christian Stolcis Navimatix GmbH, Jena, Germany

Maria Tsironi Department of Nursing, Faculty of Human Movement and Quality of Life Sciences, University of Peloponnese, Sparti, Greece

Iraklis Varlamis Department of Informatics and Telematics, Harokopio University of Athens, Athens, Greece

Lee Fueng Yap Interfaculty Initiative in Information Studies, The University of Tokyo, Tokyo, Japan

Stelios Zimeras Department of Statistics and Actuarial-Financial Mathematics, University of the Aegean, Karlovassi, Samos, Greece