

Preface

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Andrea Fronzetti Colladon • Peter A. Gloor
Editors

Designing Networks for Innovation and Improvisation

Proceedings of the 6th International
COINs Conference

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Preface

This book contains 17 peer-reviewed contributions presented at the Sixth international COINs Conference, held in Rome, Italy, from 8 to 11 June 2016.

The papers in this book cover a broad range of topics, starting with an analysis of different communities and societies through social network analysis (SNA). Classic SNA looks at the structure of networks; the papers in this book add analysis of the dynamics of network change over time, and an analysis of the content of the networks, for example, in e-mails, Tweets, or Wikipedia. Dynamic and content-based SNA affords an X-ray into the inner workings of an organization, mapping the informal relationships that transcend organizational hierarchy. It gives an assessment of communication and knowledge flow, resulting in actionable data to optimize outcomes. The approach pursued in these papers puts a lens to the organization by mining e-mail archives and, as relevant, other electronic communications from online social media (e.g., Twitter, Facebook, Wikipedia, Reddit, and other online forums) to make existing communication patterns visible. A second group of papers looks at design patterns and pattern language for creativity and other business processes, such as design patterns for education, creating workshops or modeling collaboration in the kitchen. This book is divided in four parts taking the aforementioned wide range of research fields into account. The four parts correspond to the paper sessions held at the conference.

The first part of this book contains four papers about communities, societies, and culture. Robin Gieck, Hanna-Mari Kinnunen, Yuanyuan Li, Mohsen Moghaddam, Franziska Pradel, Peter A. Gloor, Maria Paasivaara, and Matthäus P. Zylka talk about “Cultural Differences in the Understanding of History on Wikipedia.” Leanne Ma, in her paper “The Emergence of Rotating Leadership for Idea Improvement in a Grade 1 Knowledge Building Community” investigates the role of rotating leadership in the classroom. Iroha Ogo, Satomi Oi, Jei-Hee Hong, and Takashi Iba present a method for reconsidering strengths of a community in their study “Creating Community Language for Collaborative Innovation Community.” Takashi Iba concludes the first part of this book with his study titled “Sociological Perspective of the Creative Society.”

The second part contains four papers about machine learning, prediction, and networks. Veikko Isotalo, Petteri Saari, Maria Paasivaara, Anton Steineker, and Peter A. Gloor talk about “Predicting 2016 US Presidential Election Polls with Online and Media Variables,” whereas Johannes Bachhuber, Kim Rejstrom, Christian Koppeel, Jeronim Morina, and David Steinschulte present a different approach analyzing the US Presidential Elections in their work titled “US Election Prediction—A Linguistic Analysis of US Twitter Users.” In the study “Only say something when you have something to say”—Identifying Creatives Through Their Communication Patterns” by Peter Gloor, Hauke Fuehres, and Kai Fischbach, the authors study the communication patterns of particularly creative people in the R&D department of a global energy firm through their e-mail communication. Finally, Matteo Cinelli, Giovanna Ferraro, and Antonio Iovanella in their study “Some Insights into the Relevance of Nodes’ Characteristics in Complex Network Structures” present a methodology that can be used as a pre-processing tool for avoiding the inclusion of non-effective nodes’ characteristics.

The third part contains four papers about design patterns. This part starts with “Patterns as a Supporting Tool for Workshop Generators” by Yuma Akado, Masafumi Nagai, Taichi Isaku, and Takashi Iba. Next, Norihiko Kimura, Hitomi Shimizu, Iroha Ogo, Shuichiro Ando, and Takashi Iba present “Design Patterns for Creative Educational Programs.” The next study by Takashi Iba, Ayaka Yoshikawa, Norihiko Kimura, Tomoki Kaneko, and Tetsuro Kubota, “Pattern Objects: Making Patterns Visible in Daily Life,” proposes the concept of pattern objects to make contents of pattern languages visible in daily life. The third part concludes with the study by Taichi Isaku and Takashi Iba, “From Chefs to Kitchen Captains: A Leader Figure for Collaborative Networks in the Kitchen.”

The final part contains five papers about social media and social networks. Peter Gloor, Andrea Fronzetti Colladon, Christine Miller, and Romina Pellegrini start this part with their study titled “Measuring the Level of Global Awareness on Social Media,” where they introduce a novel approach to measure the degree of global awareness by analyzing social media. Subsequently, Joao Marcos de Oliveira and Peter A. Gloor present an application that extracts newsworthy user-generated content from Wikipedia and Twitter in “The Citizen IS the Journalist—Automatically Extracting News from the Swarm.” Next, Timo Herttua, Elisa Jakob, Sabrina Nave, Rambabu Gupta, and Matthäus P. Zylka explore the essence, definition and methods of the grassroots practitioner term growth hacking in their study called “Growth Hacking: Exploring the Meaning of an Internet-born Digital Marketing Buzzword.” Then, action-development-relationship (ADR) processes as a social innovation-design methodology for creating strategic partnerships and networks are presented by Makoto Okada, Yoichiro Igarashi, Hirokazu Harada, Masahiko Shoji, Takehito Tokuda, and Takashi Iba in “ADR Processes for Creating Strategic Network for Social Issues: Dementia Projects.” The book concludes with the study of Sayaka Sugimoto titled “Depression as a Global Challenge and Online Communities as an Alternative Venue to Develop Patients-led Supportive Network.”

We wish to express our gratitude to Agostino La Bella who delivered the inaugural keynote about leadership, communication, and charisma, as well as to the other two invited keynote speakers Jana Diesner (Words and Networks: Using Natural Language Processing to Enhance Graphs and Test Network Theories), and Peter A. Gloor (Building Collective Consciousness—Homo Collaborensis). Both, Peter A. Gloor and Jana Diesner conducted also workshops at the conference. In total, four workshops were held. We also thank the other two workshop instructors, Takashi Iba (Design Patterns of Creativity Workshop), and Lukas Zenk (Designing Innovative Networking Events Workshop), for insightful and creative workshops.

We are pleased to acknowledge the important help of the colleagues who assisted in the organization of this event, starting with Agostino La Bella (Conference Chair), Andrea Fronzetti Colladon (Local Chair), and the staff members at the Tor Vergata University of Rome, without whom the conference could not have been organized.

Further, we would like to thank the *Steering Committee*, responsible for the development and support of the COINs conference series, whose members are Peter A. Gloor (MIT), Ken Riopelle (Wayne State Univ.), Julia Gluesing (Wayne State Univ.), Takashi Iba (Keio Univ.), Casper Lassenius (Aalto Univ.), Maria Paasivaara (Aalto Univ.), Christine Miller (IIT), Cristobal Garcia (Pontificia Univ. Católica de Chile), and Andrea Fronzetti Colladon (Tor Vergata Univ. of Rome).

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Finally, we would like to thank all the authors and reviewers for their contributions to this book.

Bamberg, Germany
 Bamberg, Germany
 Rome, Italy
 Cambridge, MA, USA

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 Hauke Fuehres
 Andrea Fronzetti Colladon
 Peter A. Gloor

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