

Proceedings of the 9th International Symposium on Open Collaboration

August 5-7, 2013
Hong Kong, China



General chairs: Ademar Aguiar
Dirk Riehle

Research track chairs: Anne Fitzgerald
Heather Ford
Jesus M. Gonzalez-Barahona
Mark Graham
Neale Hopper
Nicolas Jullien
Gregorio Robles
Jude Yew

Sponsors: Wikimedia Foundation
Google
Invest Hong Kong
Cyberport
European Chamber of Commerce Hong Kong
The John Ernest Foundation

In-cooperation: ACM SIGSOFT
ACM SIGWEB

The Association for Computing Machinery
2 Penn Plaza, Suite 701
New York New York 10121-0701

ACM COPYRIGHT NOTICE. Copyright © 2013 by the Association for Computing Machinery, Inc. Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage and that copies bear this notice and the full citation on the first page. Copyrights for components of this work owned by others than ACM must be honored. Abstracting with credit is permitted. To copy otherwise, to republish, to post on servers, or to redistribute to lists, requires prior specific permission and/or a fee. Request permissions from Publications Dept., ACM, Inc., fax +1 (212) 869-0481, or permissions@acm.org.

For other copying of articles that carry a code at the bottom of the first or last page, copying is permitted provided that the per-copy fee indicated in the code is paid through the Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923, +1-978-750-8400, +1-978-750-4470 (fax).

Notice to Past Authors of ACM-Published Articles : ACM intends to create a complete electronic archive of all articles and/or other material previously published by ACM. If you have written a work that was previously published by ACM in any journal or conference proceedings prior to 1978, or any SIG Newsletter at any time, and you do NOT want this work to appear in the ACM Digital Library, please inform permissions@acm.org, stating the title of the work, the author(s), and where and when published.

ACM ISBN: 978-1-4503-1852-5



The 9th International Symposium on Open Collaboration

Foreword

Welcome to the proceedings of WikiSym + OpenSym 2013, the 9th international symposium on open collaboration!

Open collaboration is collaboration that is egalitarian (everyone can join, no principled or artificial barriers to participation exist), meritocratic (decisions and status are merit-based rather than imposed) and self-organizing (processes adapt to people rather than people adapt to predefined processes). [1]

This year in the successful series of WikiSym conferences is marked by a new development, the introduction of OpenSym. OpenSym is a new conference, co-located with WikiSym. Where WikiSym originally (2005) was about “wikis” and later (2009) about “Open Collaboration”, OpenSym is only about “open collaboration” and WikiSym is joining it in this both broader and sharper focus, hence “WikiSym + OpenSym 2013, the 9th international symposium on open collaboration”. We expect this co-location to continue.

WikiSym + OpenSym 2013's rich program addresses researchers, industry, and community. These proceedings try to capture what is going on at the conference but can only do so in a limited way. Much more than can be captured here is going on in open space, a facilitated meeting track, and much more is happening in the hallways where participants meet, greet, and engage.

WikiSym plays an important role for wiki research in general and Wikipedia research in particular. With the addition of OpenSym it became apparent that a better structure for the research part of the conference would be based on research tracks. Hence we introduced the following tracks:

- Open collaboration (wikis, social media, etc.) research (WikiSym)
- Wikipedia research (WikiSym)
- Free, Libre, and Open Source Software (OpenSym)
- Open Access (OpenSym)

In the future, we intend to add an open data and an open innovation track to OpenSym and a combined WikiSym + OpenSym.

In total, WikiSym + OpenSym 2013 accepted 22 research papers (short and full) out of 43 research paper submissions for publication in these proceedings. We also accepted three research posters.

In addition, WikiSym + OpenSym accepted four “research-in-progress presentations” for presentation at the conference. Research-in-progress presentations are submissions that successfully passed full research paper peer review, but where the authors explicitly preferred to have their work not published through the proceedings and only wanted to give a research talk at the event. This style of submission caters to research disciplines where conference publications don't count for much, despite a high-quality peer review. We assure the reader that the research-in-progress submissions that have been accepted and that are represented using an abstract only in these proceedings are as good as the regular research papers.

Finally, a number of experience report, demo, poster, workshop, and tutorial submissions were received. Those accepted for the conference can also be found in these proceedings in abstract form.

A doctoral symposium to provide feedback for the next generation of researchers rounds out the WikiSym + OpenSym 2013 proceedings.

We hope that you will enjoy the work presented here and that it provides you with a glimpse of the diversity and energy of the actual live event!

For the WikiSym + OpenSym 2013 conference committee

Dirk Riehle

Friedrich-Alexander University Erlangen-Nürnberg

[1] See <http://opensym.org/about/definition> and <http://www.wikisym.org/2012/09/28/definition-of-open-collaboration/>



The 9th International Symposium on Open Collaboration

Table of Contents

Open Collaboration Research Track

Analyzing Multi-Dimensional Networks within MediaWikis (Brian Keegan, Arber Ceni, Marc Smith)	A1
Design and Implementation of Wiki Content Transformations and Refactorings (Hannes Dohrn, Dirk Riehle)	A2
Project talk: Coordination work and group membership in WikiProjects (Jonathan T. Morgan, Michael Gilbert, David McDonald, Mark Zachry)	A3
Songrium: A Music Browsing Assistance Service Based on Visualization of Massive Open Collaboration Within Music Content Creation Community (Masahiro Hamasaki, Masataka Goto)	A4
Managing Complexity: Strategies for group awareness and coordinated action in Wikipedia (Michael Gilbert, Jonathan Morgan, David McDonald, Mark Zachry)	A5

Wikipedia Research Track

When the Levee Breaks: Without Bots, What Happens to Wikipedia's Quality Control (R.Stuart Geiger and Aaron Halfaker)	B1
A History of Newswork on Wikipedia (Brian Keegan)	B2
Tell Me More: An Actionable Quality Model for Wikipedia (Morten Warncke-Wang, Dan Cosley and John Riedl)	B3
Getting to the Source: Where does Wikipedia Get Its Information From? (Heather Ford, David R. Musicant, Shilad Sen, Nathaniel Miller)	B4

Revision graph extraction in Wikipedia based on supergram decomposition (Jianmin Wu, Mizuho Iwaihara)	B5
The Illiterate Editor: Metadata-driven Revert Detection in Wikipedia (Jeffrey Segall, Rachel Greenstadt)	B6
The role of conflict in determining consensus on quality in Wikipedia articles (Kim Osman)	B7
Partial Automation for Human Tasks in a Collaborative System: The Case of Deletion in Wikipedia (Bluma S. Gelley, Torsten Suel)	B8
Temporal Analysis of Activity Patterns of Editors in Collaborative Mapping Project of OpenStreetMap (Taha Yasseri, Giovanni Quattrone, Afra Mashhadi)	B9
Wikipedia: A new media institution? (Kim Osman)	B10

FLOSS Research Track

Security of Public Continuous Integration Services (Volker Gruhn, Christoph Hannebauer, Christian John)	C1
Collaborative Development of Data Curation Profiles on a Wiki Platform: Experience from Free and Open Source Software Projects and Communities (Sulayman K. Sowe, Koji Zettsu)	C2
A Case Study of the Collaborative Approaches to Sustain Open Source Business Models (Shane Coughlan, Tetsuo Noda, Terutaka Tansho)	C3
The Empirical Commit Frequency Distribution of Open Source Projects (Carsten Kolassa, Dirk Riehle, Michel Salim)	C4
User Evolvable Tools in the Web (Jens Lincke, Robert Hirschfeld)	C5

Open Access Research Track

Seamless Sharing in a Seemingly Divided World - A Glimpse of the Challenges Faced by Creative Commons (Poorna Mysoor)	D1
Metadata Aggregation at GovData.de - An Experience Report (Florian Marienfeld, Ina Schieferdecker, Evanela Lapi, Nikolay Tcholtchev)	D2

Research Posters

- Interest Classification of Twitter Users using Wikipedia (Kwan Hui Lim, Amitava Datta) E1
- A Preliminary Study on the Effects of Barnstars on Wikipedia Editing (Kwan Hui Lim, Amitava Datta and Michael Wise) E2
- A Graphical User Interface for SILK Data Link Discovery Framework (Rina Singh, Jan Hidders, Feng Xia, Jialiang Kang) E3

Research-in-Progress Presentations

- Impact of Social Features Implemented in Open Collaboration Platforms on Volunteer Self-Organization: Case Study of Open Source Software Development (Junghong Choi, Bruce Ferwerda, Jungpil Hahn, Jinwoo Kim, Jae Yun Moon) F1
- How do Baidu Baike and Chinese Wikipedia filter contribution? A case study of network gatekeeping (Han-Teng Liao) F2
- How does localization influence online visibility of user-generated encyclopedias? A study on Chinese-language Search Engine Result Pages (SERPs) (Han-Teng Liao) F3
- Are Memory Institutions Ready for Open Data and Crowdsourcing? Results of a pilot survey from Switzerland (Beat Estermann) F4

Doctoral Symposium

- Drawing the Big Picture: Analyzing FLOSS Collaboration with Temporal Social Network Analysis (Amir Azarbakht) G1
- Cyberactivism and Nationalistic Communicative Actions of Publics: Framing and Agenda-Building over Wikipedia in International Disputes (Laishan Tam) G2
- Wikipedia as a New Media Institution: Issues of Diversity, Regulation and Sustainability in an Open Encyclopedia (Kim Osman) G3
- Wiki Development Environments (Christoph Hannebauer) G4
- The Dynamics of Gatekeeping in Online Collaborative Systems (Bluma S. Gelly) G5

The dual role of conflict in Free and Open Source Software development (Anna Filippova) G6

Invited Talks

The Era of Open (Phil Bourne) H1

Lets raise kids up! (Pockey Lam) H2

Descending Mount Everest: Steps towards applied Wikipedia research (Dario Taraborelli) H3

Implementing open licensing in government open data initiatives: a survey of Australian government practice (Anne Fitzgerald, Neale Hooper, John Cook) H4

Experience Reports

A triangulated investigation of using wikis for project-based learning in different undergraduate disciplines (Edwin Chu, Michele Notari, Katherine Chen, Chi Keung Chan, Samuel Chu, Wendy Wu) I1

Empowering formative assessment using embedded Web Widgets in Wikis (Michele Notari, Sonja Schär, Martin Schellenberg, Samuel Kai Wah Chu) I2

Involving users to increase their acceptance (Angelika Mühlbauer, Kai Nissen) I3

Community Demos

Data Twist: An experimental script family to twist Open Data into new shapes (Shane Coughlan, Tetsuo Noda, Yasumichi Hanagata) J1

The Basic Techniques in Text Mining using Open-source Tools (Jun Iio) J2

R-Tools: Mediawiki extension for full-scale statistical computing (Juha Villman, Einari Happonen) J3

Automated metrics for Wiki-based school assignments (Oren Bochman) J4

Community Tutorials

Video Co-creation in Collaborative Online Communities (Andrew Lih) K1



The 9th International Symposium on Open Collaboration

Conference Organization

Overall Organization

Dirk Riehle (Friedrich-Alexander University Erlangen-Nürnberg), general chair

Ademar Aguiar (Universidade do Porto), special missions

Research Track Chairs

Jude Yew (National University of Singapore), chair of the Open Collaboration (Wikis, Social Media, etc.) Research Track

Heather Ford and Mark Graham (Oxford Internet Institute, University of Oxford), co-chairs of the Wikipedia Research Track

Anne Fitzgerald and Neale Hopper (Queensland University of Technology), chair of the Open Access, Data, and Government Research Track

Jesus M. Gonzalez-Barahona and Gregorio Robles (Universidad Rey Juan Carlos), co-chairs of the Free, Libre, and Open Source Research Track

Nicolas Jullien (Institut Mines-Télécom, Télécom Bretagne), chair of the Doctoral Symposium

Publicity Chairs

Robert Biuk-Aghai (University of Macau)

Marc Laporte (Tiki Wiki CMS Groupware)

Haggen So (Hong Kong Baptist University)

Process and Support

Waltraut Ritter (City University of Hong Kong), Local Arrangements

Johannes Spielhagen (n61.eu), Graphics and Advertisements

Hannes Dohrn (Friedrich-Alexander-University), Webmaster and Technology

Gottfried Hofmann (Friedrich-Alexander-University), Weblog

Honorary Members

Phoebe Ayers (UC Davis), WikiSym steering committee

Amy Bruckman, (Georgia Institute of Technology), WikiSym steering committee

Robert Biddle (Carleton University), WikiSym steering committee

Ward Cunningham, WikiSym steering committee

Alain Désilets (National Research Council of Canada), WikiSym steering committee

Cliff Lampe (University of Michigan), WikiSym steering committee

James Noble (Victoria University of Wellington), WikiSym steering committee



The 9th International Symposium on Open Collaboration

Open Collaboration Research Track Committee

Chair

Jude Yew, National University of Singapore

Members

Judd Antin, Facebook

Amy Bruckman, Georgia Institute of Technology

Ed Chi, Google

Coye Cheshire, University of California, Berkeley

Dan Cosley, Cornell University

Anna Fillipova, National University of Singapore

Aaron Halfaker, University of Minnesota

James Howison, University of Texas at Austin

Cliff Lampe, University of Michigan

Jenn Thom, IBM

Rick Wash, Michigan State University



The 9th International Symposium on Open Collaboration

Wikipedia Research Track Committee

Chairs

Heather Ford and Mark Graham (Oxford Internet Institute, University of Oxford)

Members

Megan Finn, Microsoft Research, New England

Stuart Geiger, UC-Berkeley School of Information

Brent Hecht, Department of Computer Science and Engineering, University of Minnesota

Benjamin Mako Hill, Massachusetts Institute of Technology

Brian Keegan, Northeastern University

Wen Lin, Newcastle University

Jonathan T. Morgan, Human Centered Design & Engineering, University of Washington

Felipe Ortega, Dept. of Statistics and Operations Research, University Rey Juan Carlos

Dan Perkel, IDEO

Joseph Reagle, Northeastern University

Jodi Schneider, DERI, NUI Galway

Shilad Sen, Macalester College

Ryan Shaw, UNC Chapel Hill

Monica Stephens, Humboldt State University

Dario Taraborelli, Wikimedia Foundation

Robert West, Computer Science Department, Stanford University

Matthew W. Wilson, Department of Geography, University of Kentucky

Taha Yasseri, Oxford Internet Institute, University of Oxford

Matthew Zook, University of Kentucky



The 9th International Symposium on Open Collaboration

FLOSS Research Track Committee

Chairs

Jesus M. Gonzalez-Barahona, Universidad Rey Juan Carlos, Spain

Gregorio Robles, Universidad Rey Juan Carlos, Spain

Members

Cornelia Boldyreff, University of East London, UK

Deborah Bryant, Open Source Initiative, US

Andrea Capiluppi, Brunel University, UK

Roberto di Cosmo, Université de Paris VII, France

Masayuki Hatta, Surugadai University, Japan

Israel Herraiz, Technical University of Madrid, Spain

Nicolas Jullien, Institut Telecom Bretagne, France

Stefan Koch, Bogazici University, Turkey

Bjorn Lundell, University of Skövde, Sweden

Paulo Meirelles, Universidade de Sao Paulo, Brasil

Martin Michlmayr, Hewlett Packard, UK

Dirk Riehle, Friedrich-Alexander University Erlangen-Nürnberg, Germany

Carlos D. Santos Jr., University of Brasilia, Brasil

Maha Shaikh, London School of Economics, UK

Megan Squire, Elon University, USA

Klaas-Jan Stol, LERO – University of Limerick, Ireland

Anthony Wasserman, Carnegie Mellon Silicon Valley, USA

Andrea Wiggins, Cornell University, USA

Stefano Zacchioli, Université Paris Diderot, France

Minghui Zhou, Peking University, China



The 9th International Symposium on Open Collaboration

Open Access Research Track Committee

Chair

Anne Fitzgerald , Faculty of Law, Queensland University of Technology, Australia

Neale Hooper, Faculty of Law, Queensland University of Technology, Australia

Members

Chris Corbin, Independent Consultant on Public Sector Information Policy, United Kingdom

Tyng-Ruey Chuang, Academia Sinica, Taiwan

Haswira Hashim, Faculty of Law, MARA University of Technology, Malaysia

Tracey Lauriault, Geomatics and Cartographic Research Centre, Carleton University, Canada

Rami Olwan, College of Business Administration, University of Sharjah, United Arab Emirates

Marta Poblet, UAB Institute of Law and Technology, Universitat Autònoma de Barcelona, Spain

Ina Schieferdecker, Fraunhofer FOKUS and Freie Universität Berlin, Germany

Chunyan Wang, Renmin University of China Law School, P.R. China

WikiSym OPENSYM

The 9th International Symposium on Open Collaboration

Platinum Sponsor



Gold Sponsor



Silver Sponsor



In-Kind Sponsors



Fiscal Sponsor



In-Cooperation



