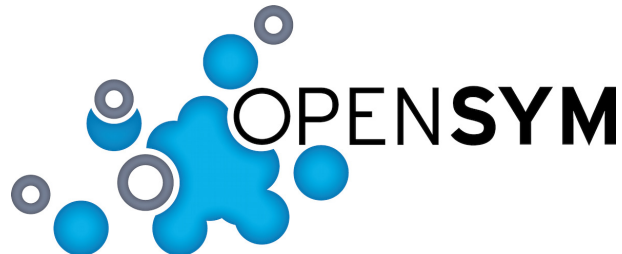


**Proceedings of
the 15th International Symposium on
Open Collaboration**



**August 20–22, 2019
Skövde, Sweden**

- General Chairs:** Björn Lundell, University of Skövde, Sweden
Jonas Gamalielsson, University of Skövde, Sweden
- Program Chairs:** Lorraine Morgan, National University of Ireland Galway
Gregorio Robles, Universidad Rey Juan Carlos, Spain
- Doctoral Consortium
Chairs:** Joseph Feller, University College Cork, Ireland
Benjamin Mako Hill, University of Washington, USA
- Organizational Chair:** Pernilla Klingspor, University of Skövde, Sweden
- Organizational Advisor:** Dirk Riehle, Friedrich-Alexander University Erlangen-
Nürnberg, Germany
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**The Association for Computing Machinery
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General Chairs' Foreword

Welcome to OpenSym 2019, the 15th International Symposium on Open Collaboration which was held 20-22 August in Skövde, Sweden.

Open collaboration 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 pre-defined processes).¹

We are very pleased to host the premier conference on open collaboration research and practice at the University of Skövde, Sweden and thereby promote stimulating discussions and dissemination of results in many areas of open collaboration, including open source, open data, open science, open education, wikis and related social media, Wikipedia, and IT-driven open innovation research.

We are very pleased to provide three excellent keynotes:

- Allison Randal on 'Healthy open collaboration in and beyond the software domain'
- Andrew Katz on 'Designing a licence for open collaboration: insights from development and use of the CERN Open Hardware Licence'
- Gustav Nilsson on 'Open data in research on humans — promises and challenges'

We are very grateful to all researchers and practitioners that contributed to OpenSym 2019. Many people have contributed greatly to make OpenSym 2019 happen and we owe them a great deal of thanks. The two program chairs, Lorraine Morgan and Gregorio Robles, have made considerable contributions in time and effort for the conference program. Sincere thanks go to Simon Butler for his considerable efforts as proceedings chair and to Pernilla Klingspor for her commitment as organisation chair. A special thanks goes to Dirk Riehle for his support and encouragement! We also want to thank all members of the Program Committee, the external reviewers, and all participants that contributed to OpenSym 2019.

Finally, we are also very grateful for the financial support from the Swedish Competition Authority (Konkurrensverket) and the support from the University of Skövde.

Without the aforementioned valuable contributions, OpenSym 2019 would never have happened in Skövde!

Björn Lundell and Jonas Gamalielsson
General Chairs, OpenSym 2019

¹<https://opensym.org/about-us/definition/>

Program Chairs' Foreword

We welcome you to the 15th International Symposium on Open Collaboration (OpenSym 2019) held August 20-22nd in Skövde, Sweden. As a premier conference in the field, OpenSym 2019 provides an excellent forum for reporting the latest developments on open collaboration research and practice, including open source, open data, open science, open education, wikis and related social media, Wikipedia, and IT-driven open innovation research.

We are pleased to present the proceedings of the conference as its published record. The conference accepted 23 submissions, of which 17 comprised full research papers. The conference program represents the efforts of many people. We want to express our gratitude to the members of the Program Committee and the external reviewers for their hard work in reviewing submissions. We also thank our invited keynote speakers for sharing their insights with us. The conference chairs, Björn Lundell and Jonas Gamalielsson also helped us out in many ways, for which we are grateful. The paper submission and reviewing process was managed using the EasyChair system. We also acknowledge the fantastic work that Simon Butler, our Proceedings Chair, did in assembling the final conference proceedings. Finally, the conference would not be possible without the excellent papers contributed by authors. We thank all the authors for their contributions and their participation in OpenSym 2019! We feel honoured and privileged to serve as Program Chairs for the conference and hope that this program will further stimulate research in all areas of open collaboration.

Gregorio and Lorraine
Program Chairs, OpenSym 2019

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General Chairs:	Björn Lundell, University of Skövde, Sweden Jonas Gamalielsson, University of Skövde, Sweden
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