

Sabine Brunswicker

CONTACT

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SUMMARY STATEMENT

Dr. Sabine Brunswicker is a computational social scientist and scholar of digital innovation. Her recent work is particularly focused on the phenomenon of open digital innovation, describing new ways of using information technologies to organize the design and use of innovative digital goods in a more fluid and distributed way. Examples of open digital innovation are peer-to-peer production, collective design, crowdsourcing, mobile app platforms, or e-health communities. In her work, she designs and examines socio-technical systems for open digital innovation that increasingly integrate some degree of machine intelligence (e.g. AI and ML). Further, she uses computational techniques and online experimentation to advance theories and models of complex socio-technical interactions. Her Research Center for Open Digital Innovation (RCODI) at Purdue University with a team of 20 interdisciplinary researchers, scholars, and thinkers is the backbone of her work. Since 2014, she and her collaborators have won competitive research grants in a value of more than \$4 million. Sabine has lead the design and launch of new graduate programs in digital innovation bridging data science, information systems, and innovation studies, including a dual degree with Tsinghua University. She is also the founder of a unique virtual active learning program, in which students engage in a 8-weeks iterative open data hacking and app design process (e.g. www.ironhacks.com).

EDUCATION

- 2011 Ph.D. in Engineering Sciences (German Degree Name: Doktor Ingenieurin, Dr. Ing.), University of Stuttgart, Germany ('with highest honor'), won two Best Dissertation Awards
- 2005 Master of Science in Engineering & Management Sciences (German Double Degree Name: Dipl.-Wirtsch.-Ing.), University of Technology, Darmstadt, Germany
- 2005 Master of Commerce (MCom) with a specialization in Marketing & Consumer Behavior, University of New South Wales, Australia
- 2001 Intermediate Diploma Engineering & Management Sciences (German name: Vordiplom Wirtschaftsingenieur, comparable to Bachelor of Science in USA), University of Technology, Darmstadt, Germany

APPOINTMENTS

- 2013-present Associate Professor for Digital Innovation, Technology Leadership & Innovation, Purdue Polytechnic Institute, Associate Professor (by Courtesy), Brian Lamb School of Communication, Purdue University
- 2014-present Founder and Director Research Center for Open Digital Innovation, Purdue University.
- 2015-present Visiting Professor, School of Information Systems, ESADE Business School, Spain.
- 2014-present Adjunct Professor, Digital Innovation, School of Information Systems, QUT, Brisbane.
- 2013-2015 Strategic Advisor Open Innovation, Fraunhofer Society, Munich.
- 2012-2014 Senior Research Fellow, ESADE Business School, Barcelona, Spain.
- 2011-2013 Head of Research Open Innovation, Fraunhofer Institute for Industrial Engineering (IAO), Stuttgart, Germany.
- 2012-2013 Visiting Scholar, Queensland University of Technology, Brisbane, Australia.
- 2011-2013 Senior Lecturer, European School of Business (ESB), Reutlingen, Germany.
- 2009-2011 Research Program Manager, Fraunhofer Institute for Industrial Engineering, Stuttgart, Germany.
- 2006-2009 Research Associate, Institute for Industrial Engineering, University of Stuttgart.
- 2005-2006 Research Fellow, Ambient Intelligence Lab, Fraunhofer IPSI, Darmstadt, Germany.

PUBLICATIONS (EXCERPT ONLY)

Book Chapters

- Kremser, W., Pentland, B., & Brunswicker, S. (Forthcoming). The Continuous Transformation of Interdependence in Networks of Routines. In Book Series: Research in Sociology of Organizations. Emerald Insight, invited publication.
- Brunswicker, S., Majchrzak, A., Almirall, E., & Tee, R. (2016). Co-creating value from open data: from incentivizing developers to inducing co-creation in open data ecosystems. In S. Nambisan (Ed.): Open Innovation and Innovation Networks (Vol. 1). World Scientific Publishing.
- Brunswicker, S. (2016). Managing open innovation in small and medium-sized firms in the tourism sector. In W. Egger, I. Gula, & D. Walcher (Eds.), Open tourism: Open innovation, crowdsourcing, and collaborative consumption challenging the tourism industry. Berlin: Springer.
- Bagherzadeh, M., & Brunswicker, S. (2016). Governance of Knowledge Flows in Open Exploration: The Role of Behavioral Control. In Das, T.K. (Ed.), Decision Making in Behavioral Strategy (DMBS), Information Age Publishing (IAP).
- Brunswicker, S., & Johnson, J. (2015). From governmental open data toward governmental open innovation (GOI). In D. Archibugi & A. Filippetti (Eds.), The handbook of global science, technology, and innovation (1 ed., pp. 504-524): New Jersey: John Wiley & Sons, Ltd.

Brunswick, S., & van de Vrande, V. (2014). Exploring open innovation in small and medium-sized enterprises. In H. Chesbrough, W. Vanhaverbeke, & J. West (Eds.), *New frontiers in open innovation* (1 ed., pp. 135-156). Oxford, United Kingdom: Oxford University Press.

Referred Journal Articles (under Review or Revision)

- Brunswick, S., Almirall, E., & Majchrzak, A. (revise & resubmit, 3rd round). The Downside of Optimizing: a Simulation on the Interplay Between Platform Design Characteristics and Developers' Behavioral Strategies on Platform Performance. *Management Information Systems Quarterly*.
- Brunswick, S., Jensen, B., Song, Z., & Majchrzak, A. (under review, 2nd round). Transparency as Design Choice of Open Data Contests. *Journal of American Society for Information Science and Technology*.
- Brunswick, S., Armisen, A., & Haefliger, S. (revise and resubmit, 1st round). Joint Problem Solving in Open Collaboration. *Management Information Systems Quarterly*.
- Brunswick, S., Jorge, R., & Wareham, J. (revise and resubmit, 1st round). Standardization through Formal and Informal Standard Development Organizations (SDOs). *Research Policy*.
- Promann, M., & Brunswick, S. (revise&resubmit, 1st round). Eco-Feedback Design: A Systematic Review. *ACM Transaction on Computer Interactions (TOCHI)*.
- Brunswick, S., Almirall, E., & Lee, M. (under review, 1st round). Transparency and open public policy in complex decision environments. *Research Policy*.
- Mukherjee S., & Brunswick S. (under review, 1st round). Central or in a Nucleus? Joint Problem Solving Relationships and Individual Knowledge Creation in Open Collaboration. *Information Systems Research*.

Referred Journal Articles (published)

- Brunswick, S., & Chesbrough, H. (2018). The Adoption of Open Innovation in Large Firms: Practices, Measures, and Risks. *Research Technology Management*. forthcoming.
- Brunswick, S., Bilgram, V., & Fueller, J. (2017). Taming wicked civic challenges with an innovative crowd. *Business Horizons*, 60(2), 8-40.
- Bogers, M., Zobel, A.-K., Afuah, A., Almirall, E., Brunswick, S., Dahlander, L., ... Magnussen, M. (2017). The Open Innovation Landscape: Established Perspectives and Emerging Themes Across Different Levels of Analysis. *Industry & Innovation*, 24(1), 8-40.
- Brunswick, S., Matei, S. A., Zentner, M., Zentner, L., & Klimeck, G. (2017). Creating impact in the digital space: digital practice dependency in communities of digital scientific innovations. *Scientometrics*, 110(1), 417-426.
- Brunswick, S., & Vanhaverbeke, W. (2015). Open innovation in small and medium-sized enterprises (SMEs): External knowledge sourcing strategies and internal organizational facilitators. *Journal of Small Business Management*, 53(4), 1241-1263.
- Brunswick, S., Bertino, E., & Matei, S. (2015). Big data for open digital innovation – A research roadmap. *Big Data Research*, 2(2), 53-58.
- Chesbrough, H., & Brunswick, S. (2014). A Fad or a Phenomenon? The Adoption of Open Innovation Practices in Large Firms. *Research Technology Management*, 57(2), 16-25.
- Koch, G., Füller, J., & Brunswick, S. (2011). Online crowdsourcing in the public sector: How to design open government platforms. *Online Communities and Social Computing*, 6778, 203-212. doi:10.1007/978-3-642-21796-8_22
- Brunswick, S., & Hutschek, U. (2010). Crossing horizons: Leveraging cross-industry innovation search in the front-end of the innovation process. *International Journal of Innovation Management*, 14(04), 683-702.

Additional publication e.g. Referred Conference Papers, Business Press (upon request or www.purdue.edu/opendigital).

ADDITIONAL ACHIEVEMENTS (EXCERPT)

- 1. Founder and Director** of the Research Center for Open Digital Innovation that brings together an interdisciplinary group of 20 faculty members, visiting scholars, students in the field of computational social science www.purdue.edu/opendigital
- 2. Significant track-record in winning research grants:** Since the inauguration of the center at Purdue University in 2014, she has submitted >25 grant and donation proposals for a total value of more than **\$10 million**. To date, she and her collaborators have been awarded 17 external discovery grants with a value of more than \$4 million, including 4 National Science Foundation (NSF) grants, 1 NIH grant, donations from universities (e.g. UC Berkeley), and 3 donations from industrial partners (e.g. Red Hat), and additional internal competitive grants. She is or has been the PI in more than half of the projects. Prior to joining Purdue, Sabine won and implement competitive research grants (EC) in a total value of more than EUR 5million.
- 3. Successful advisory and graduation of PhDs and mentoring of post-docs and visiting scholars:** She has successfully graduated 3 PhDs that are placed in industry (data science) and academia, she has advised junior faculty, visiting professors (including dean's from foreign universities), post-docs and PhDs
- 4. Representative** at Large of the Division of Organization Communication and Information System (OCIS) of the Academy of Management (AOM) (2016 - today); additional **Leadership Role** in Academic Conferences on Computational Social Science and Social Computing. Recent Activities: Program Chair of the Specialized Conference of the AOM "Big Data and Managing in the Digital Economy", University of Surrey, UK ; Scientific Committee of the HCOMP Conference 2017, the 5th AAAI conference on human computation in Quebec City, Canada, Program Committee Member of *Collective Intelligence Conference* 2017 NYU, School of Engineering, New York.
- 5. Founder of Purdue IronHacks**, a virtual open data app design program that supports large scale experiments as well as active online learning in digital innovation; lead to new classes in Purdue's Honor's College for outstanding students
- 6. Lead the development of a Graduate Education in Global Digital Innovation:** e.g. An Global Digital Innovation Dual Degree with Tsinghua University (Lead in Design and Approval), currently appointed to realize new Certificate on Data Analytics