

Christina Pakusch¹, Alexander Boden^{1,2}, Henrik Korsgaard³, Myriam Lewkowicz⁴, Gabriela Avram⁵, Susanne Bødker³ (2021): 2nd Workshop on Studying Technical Mechanisms for Supporting Sharing Communities. In: Proceedings of the 19th European Conference on Computer-Supported Cooperative Work: The International Venue on Practice-centred Computing on the Design of Cooperation Technologies - Workshops, Reports of the European Society for Socially Embedded Technologies (ISSN 2510-2591), DOI: 10.18420/ecscw2021-wsmc01

2nd Workshop on Studying Technical Mechanisms for Supporting Sharing Communities

Christina Pakusch¹, Alexander Boden^{1,2}, Henrik Korsgaard³, Myriam Lewkowicz⁴, Gabriela Avram⁵, Susanne Bødker³

¹Bonn-Rhein-Sieg University of Applied Science, Germany, ²Fraunhofer-Institute for Applied Information Technology FIT, Germany, ³Aarhus University, Denmark, ⁴Troyes University of Technology, France, ⁵University of Limerick, Ireland
Contact Author: christina.pakusch@h-brs.de & alexander.boden@h-brs.de

Abstract. Sharing economies enabled by technical platforms have been studied regarding their economic, legal, and social effects, as well as with regard to their possible influences on CSCW topics such as work, collaboration, and trust. While a lot current research is focusing on the sharing economy and related communities, there is little work addressing the phenomenon from a socio-technical point of view. Our workshop is meant to address this gap. Building on research themes and discussion from last year's ECSCW, we seek to engage deeper with topics such as novel socio-technical approaches for enabling sharing communities, discussing issues around digital consumer and worker protection, as well as emerging challenges and opportunities of existing platforms and approaches.

Introduction

Technology is a key component in the emergence of the commercial sharing economy and community-oriented collaborative economy initiatives. Housing cooperatives, community gardens, food coops, tool libraries, skill swapping arrangements, and other citizen initiatives use digital technologies for collaboration, communication, and coordination purposes. Furthermore, they are all part of the collaborative economy. In the latter cases, reuse, recycling, mobilisation of existing resources, and initiatives have a real impact on the local economy.

This workshop succeeds last years' ECSCW workshop on the technical mechanisms for supporting sharing communities (Korsgaard et al., 2020), where we sought to examine and explore the relationship between these enabling technologies combined with emerging initiatives and communities. The aim of the follow-up workshop is to further engage with these research themes and work towards a better understanding of core technical mechanisms and issues we have identified. We invite submissions that build on work presented last year, particularly engaging with the following issues:

- How can we design mechanisms that enable effective and flexible sharing of digital goods and services, from simple low-tech approaches to highly sophisticated technologies such as blockchain?
- What governance and licence models can facilitate these mechanism's use?
- How can technical platforms be designed to protect the rights of their users (both consumers as well as gig workers)?
- Which role play different legal and cultural contexts, as well as general implications from the *datafication* of our lives?
- How can we address possible shortcomings of existing designs, for instance in terms of enhancing collectivity, sustainability and resilience?
- How can we raise awareness about those issues and values in sharing communities?

By 'mechanisms', we mean technological mechanisms that play a role in enabling, ordering, structuring, hindering, and shaping interactions that have various other impacts or effects on practices within sharing communities. We recognise that there is no causal effect between how a community uses a platform or how activities unfold and the technical mechanisms. However, we believe that it is possible to identify and discuss common use patterns, effects, and potential relations between several technological mechanisms as well as sharing and caring practices. Hence, our workshop is intended to focus on the technical features and infrastructures that support the collaborative practices and community aggregation regarding their effects on collaboration and economic relations.

Background

The opportunities and challenges of the sharing economy are controversially discussed in the discourse about collaborative communities. The analyses focus on the economic, legal and social effects (Kenney and Zysman, 2015) and regard possible influences on CSCW topics such as work, collaboration, and trust (Lampinen et al., 2016).

The emergence of the collaborative economy as we know and use it today has been enabled by the technical infrastructures relying on web and mobile technologies. The initial aim was to bring together peers and share partially or completely unused resources with one another - capitalizing these platform-mediated transactions has come to the fore as the most important economic driver (Geissinger et al., 2019). Since then, a substantial transformation of pricing and labour structures can be observed as a consequence of increasing platformisation. Still, there remains considerable potential for supporting new modes of (peer-to-peer) exchange by fostering trust among strangers in the collaborative economy by applying technologies, such as reputation and payment systems (Ikkala and Lampinen, 2015; McGregor et al., 2015; Teodoro et al., 2014). Platforms bear the opportunity to reallocate wealth across the value chain, specifically away from intermediaries and towards small producers and consumers (Schor and Fitzmaurice, 2015). This somewhat optimistic view of connected consumption is in stark contrast with calls for more equitable forms of organising platform labour, such as cooperatives and other social enterprises (Scholz 2014), and critiques of the emotional labour, body labour, and temporal labour that work under platform capitalism involves (Casilli and Posada, 2019; Raval and Dourish, 2016).

In the discourse about technical platforms, it is particularly interesting that the term itself has been understood rather broadly, as “*a set of digital frameworks for social and marketplace interactions*”, which “*organize and structure economic and social activity*” (Kenney and Zysman, 2016). While platforms have been analysed in their role as mediators for sharing goods and services in addition to facilitating those transactions (such as by offering means for payment), the technological basis, infrastructure or functionality that are underlying a particular sharing economy communities have been less discussed (Bødker et al., 2020).

Ongoing research mainly investigates the sharing economy and related communities such as food sharing (Ganglbauer et al., 2014; Malmborg et al., 2015), time banking (Bellotti et al., 2014; Seyfang and Smith, 2002), and local online exchange (Lampinen et al., 2016; Suhonen et al., 2010), as well as network hospitality (Bialski, 2012; Ikkala and Lampinen, 2015; Molz, 2012), on-demand labour (Teodoro et al., 2014), and crowdfunding (Bellotti et al., 2015; Gerber and Hui, 2013). In Contrast, work addressing the collaborative economy phenomenon from a socio-technical point of view is rare. Only few work in HCI or CSCW is addressing the technology behind these platforms, the reasoning behind their specification, their impacts on users and collaboration, and potential effects of

technology meant to support local sharing economies in their cooperative activities. This led us to organise a workshop on the topic as part of ECSCW 2020, where we sought to examine and explore the relationship between these enabling technologies and the emerging initiatives and communities (Korsgaard et al., 2020). The aim of this year's follow-up workshop is to further engage with these research themes, and work towards a better understanding of core technical mechanisms and issues that we have identified.

We think that in particular that technical features should be studied not only from the perspective of the support they provide for collaboration, but also regarding constraints and limitations they impose by observing how people work-around those constraints. We propose the following themes as possible topics for submissions.

Themes and topic areas

Adopting a socio-technical point of view allows to study both the social processes and set of governance mechanisms, and the technological architecture constituted of software modules, interfaces, and infrastructure. As CSCW researchers, we should take the opportunity to help shape the future with the technological architecture on which platforms are based (Orlikowski and Iacono, 2001). To do this, we have to look into the technical architecture of the platforms more closely. Our interest in this technological infrastructure is based on the five premises offered by Orlikowski and Iacono (2000) to carefully engage with technological artifacts: (1) information technology (IT) is not neutral or universal; IT is shaped by a variety of communities of developers, investors, users, etc. (2) IT is embedded in some time, place, discourse, community; (3) IT is made up of a multiplicity of components that require bridging, integration and articulation to work together. (4) IT emerges from practice, it can be used in different ways, adapted, expanded to accommodate different and evolving interests. (5) IT is dynamic; materials evolve, functions fail, standards are defined. In order to investigate the technological infrastructure, we need to invest in theorising the nature and the impact of this infrastructure and to work towards richer conceptualisations of IT (Tilson et al., 2010).

Based on the discussions we had as part of the initial workshop, we would like to emphasise the following issues for further discourse: Novel (socio-)technical concepts and approaches, issues around digital consumer and worker protection, as well as further emerging issues around the effects platforms have on communities, including possible blind spots such as a lack of support for collectivity (Bødker et al., 2020).

Novel socio-technical approaches

The best-known companies in the so-called platform economy share their assumption about a dominant market position in their respective fields. This aggravates the competition with these platforms for new companies (Barwise and

Watkins, 2018). Small companies often have no choice but to focus on niches where new value can still be created. Also, smaller platforms often lack technical expertise to develop (and maintain) more sophisticated platforms themselves, and come to rely on simple solutions that only require few maintenance and administration work (Bossauer et al., 2020b). Another strategy of competitors is using the same technical infrastructures like the big players, or mainly copying these existing platforms. An example of this trend can be found with *coopcycle* in France, which is the coop (=retailer) alternative of deliveroo. In this copying strategy, what changes is only the governance model (Scholz, 2014).

However, we can observe that various forms of counter-movement are becoming established, ranging from low-tech solutions to sophisticated technologies such as blockchain. Since 2015, technical development aiming to democratise aforementioned structures and are grouped under this concept. Blockchain technology could counteract the problems mentioned by organising the transfer of information and value in a secure and decentralised manner (Bossauer et al., 2020c; Prinz, 2018). Here, the blockchain can act as a neutral intermediary without pursuing economic interests (Huckle et al. 2016). Initial examples of decentralised platforms such as dlive (video platform), steemit (social network) or Whisper (messaging), are still in the exploratory phase and are therefore still struggling to survive against the central platform giants in addition to facing the challenge of building up an appropriate user base. Nevertheless, the community for decentralised technologies is growing and working at high speed on innovative solutions that should offer added value compared to centralized platforms (Bossauer et al., 2020a).

Possible research questions: How can we design mechanisms that enable effective and flexible sharing of digital goods and services, from simple low-tech approaches to highly sophisticated technologies such as blockchain? What governance and licence models can facilitate their use?

Digital consumer and worker protection

The platforms bring together providers and consumers. To achieve optimal matching, reduce information asymmetries, and strengthen participants' trust in one another, platform operators make their participants reveal a lot of data about themselves and their online behavior (Clement et al., 2019). The participants usually have very few options to restrict or reject the use of their data – without consent, they are often excluded from using the platform. At the same time, the users often lack awareness about what kind of data are collected and how they are used by the platforms (Alizadeh et al., 2020).

It turns out, however, that users are becoming increasingly sensitive when it comes to willingness to share personal data (Conroy et al., 2014). Just recently, for example, the announcement that the largest messenger service WhatsApp would change the terms and conditions with regard to an in-depth exchange of data with Facebook resulted in alternative apps such as Threema, Signal and Telegram being

flooded with new users.¹ Prosumers such as gig workers feel exposed to the mechanisms of the platform operator. Gig economy platforms like Uber do not see their drivers as employees but as independent contractors. At the same time, however, they exert great pressure on the drivers through the 5-star-rating system, with their account threatened to be deactivated as soon as their rating falls below 4.6 out of 5 stars (Raval and Dourish, 2016). Involving workers that are affected or at least threatened by the repercussions of digitisation and platformisation of their work can open up interesting implications for the design of better workplaces.

Possible research questions: How can technical platforms be designed to protect the rights of their users (both consumers as well as gig workers)? What role play different legal and cultural contexts, as well as general implications from the *datafication* of our lives?

Emergent challenges and opportunities

Recent research has illustrated how most platforms are depending on a limited number of functionalities that focus mostly on transactions but lack in terms of binding communities together. This is reflected by the literature focusing mostly on larger *monotechnological* platforms, while small-scale local communities might have rather different needs. For instance, recent research has suggested that bottom-up, local communities need better support for collectivity when they work to design their technological platform (Bødker et al., 2020). Here, we can see a field of opportunities for improving the technical basis of the sharing economy but also have to deal with challenges such as making communities aware of possible improvements and supporting them in facilitating the changes needed.

This also points to the need for a better taxonomy about platform features, mechanisms, and functionalities. In doing so, we need to distinguish between the platform economy, the sharing economy that is often focusing on viable businesses (for somebody), and the bottom-up communities. The latter, we discuss in the cases that belong more specifically in the area of the *caring* economy and platform collectivism, that “regulates direct peer-to-peer collective activity and enables emergent local social structures” (Carroll and Beck, 2019, p. 280).

Possible research questions: How can we address potential shortcomings of existing designs, for instance in terms of enhancing collectivity, sustainability, and resilience? How can we raise awareness about those issues and values in sharing communities?

Further themes

Furthermore, we are inviting contributions about the topics from the initial workshop:

¹ See <https://www.businessinsider.com/whatsapp-facebook-data-terms-conditions-privacy-signal-2021-1>, accessed at 18.02.2021.

- Platform taxonomies: How can we analyse and categorise technical mechanisms from a socio-technical perspective?
- Ideals and conflict: What happens when community values and ideals conflict with those embedded in the tools they use?
- (Un)intended dark designs: What happens when a community appropriates commercial technologies in terms of unintended effects and emerging dark designs?
- Organising on and around platforms: How can communities deal with various organisation and governance models imposed by technical platforms?

Goals and activities

As a follow-up of last year's workshop, we aim at exploring opportunities and challenges for HCI and CSCW to engage with socio-technical perspectives on platforms and support tools within the sharing and collaborative economy from the perspective of researchers and practitioners. We are also interested in engaging with practitioners that are interested in participating and starting sharing economies to get a better understanding of the possibilities of already existing tools, as well as inform design researchers about possible gaps and room for improvement. The opportunities and challenges will be organised under four main aims:

- Collecting research on socio-technical aspects of sharing economy platforms. Here we emphasise perspectives and discussions aimed at connecting the two – the social and the technical – in discussing platforms and their underlying technologies as a follow-up of the discussions we had last year (which are reflected in the new topic areas).
- Identifying research themes, gaps, related work, in particular topics that are relevant to CSCW. This includes rethinking earlier trends in CSCW on groupware systems from a sharing platform perspective. This is meant to add to the list of themes we have listed above.
- Working towards a better understanding of core mechanisms and trade-offs in the design of platforms for the sharing economy, as well as implications in adopting and appropriating commercial solutions and platforms invented to support different kinds of work and collaboration. This requires a deeper engagement with studies about socio-technical aspects of different kinds of communities and contexts.
- Discuss and outline various abstractions across identified platforms, e.g. design patterns for community platforms, catalogues of proven mechanisms and enabling features. This is related to recent attempts to build a catalogue of technical mechanisms for sharing communities as part of the COST Action "Sharing And Caring" (see <http://sharingandcaring.eu/>).

Depending on the outcome of the workshop's discussions and on the interest of the participants, we may explore further publication outlets for the workshop papers. The contributions will be made available on the workshop website, given participant consent.

Activities and structure

Like last year, we propose a one-day, 8 hour workshop. In the workshop, we will combine discussion of position papers with fitting themes and aims. Some activities will be group-based and centred around generating contributions within the four aims of the workshop.

Preparation before the workshop We will circulate the accepted position papers, ask participants to read these, and reflect on the presented work based on the proposed themes. Depending on the scope and focus of the contributions, we will consider to ask a few guiding questions.

Morning: Introductions and short presentations The workshop will start with short presentations of the position papers. Depending on the clustering around the themes, this can happen in plenum or in two steps where the contributions are grouped around themes and then synthesised into a group presentation by the participants.

Afternoon (1) Generative group work: The afternoon will start with group work examining the themes with the aim of generating input to the main goals. This will involve mapping promising technological approaches, issues around digital consumer and worker protection, as well as emerging challenges and opportunities within the sharing economy.

Afternoon (2) Synthesis As the final step, participants will engage in a collective exercise with the task of synthesising the workshop and discussions into key directions for future research under the heading "*What has CSCW to offer to the sharing economy?*"

Organisers

Gabriela Avram is lecturer in Digital Media and Interaction Design, and senior researcher at the Interaction Design Centre of the University of Limerick (Ireland). Building on a CSCW background, her research currently focuses on the implications of the collaborative economy on urban communities, with an emphasis on DIY, civic engagement and cultural heritage. She is the Chair of the COST Action Sharing & Caring.

Alexander Boden is Professor at the Institute for Digital Consumption, Bonn-Rhein-Sieg University of Applied Science, and Fraunhofer-Institute for Applied Information Technology FIT. His work focuses on developing interactive tools in the domain of environmental and consumer informatics in a broad range of application domains ranging from smart factories to private households, as well as on ethical and social implications of technology. Alexander publishes in research communities such as CSCW, HCI, and Software Engineering.

Susanne Bødker is Professor of Human-Computer Interaction at the Department of Computer Science, Aarhus University. She works with activity theoretical HCI, Participatory Design and Computer Supported Cooperative Work. She is currently working on her ERC Advanced research project Common Interactive Objects, that takes a new theoretical focus on how we collaborate and make sense of the interactive objects in our everyday lives. Susanne is a scientific advisor for the COST action Sharing & Caring.

Henrik Korsgaard is Assistant Professor at the Department of Computer Science at Aarhus University. He works with activity theoretical HCI, CSCW and place-centric computing. He mixes empirical work on how communities adopt and appropriate technologies with constructing and deploying prototypes primarily focusing on supporting intrinsic development of local applications and services.

Myriam Lewkowicz is Full Professor of Informatics at Troyes University of Technology (France), where she heads the pluridisciplinary research group Tech-CICO. Her interdisciplinary research involves defining digital technologies to support existing collective practices or to design new collective activities. She chairs the European Society for Socially Embedded Technologies (EUSSET), and she is vice-chair of the COST Action Sharing & Caring, in which she is in charge of the working group focusing on technical platforms.

Christina Pakusch is post-doc researcher at the Institute for Digital Consumption, Bonn-Rhein-Sieg University of Applied Science. She is interested in innovative transport concepts in the sharing economy and examines their effects with a focus on the social and ecological consequences. Following a user-centered approach, her empirical studies aim to complement traditional technology assessment.

Maximum number of participants expected

We expect to bring together a maximum of 20 participants. Our intended audience is primarily researchers who are actively engaged in studies of sharing economy contexts, but also active members of such communities. We will encourage a mix of practitioners, graduate students, new faculty, and established researchers to participate.

Means of recruiting and selecting participants

The call for papers will be disseminated via CSCW-related mailing lists (e.g. EUSSET, CSCW). We will also publish the call via social media and community mailing lists of our COST Action in order to target a broader audience, especially active members of sharing communities. We will establish a webpage that we will use throughout the process to advertise and collect information, a tentative reader on the sharing economy and subsequently publish the position papers and insights from the workshop, with participant consent.

In order to attract practitioners, we will contact organizations involved in designing platforms with whom we already interacted in the framework of the COST action: E.g. Platform Design Toolkit (Simone Cicero) and Collaboriamo (Elisa Saturno).

Prospective participants are invited to submit short papers (2-4 pages) on their research using the ECSCW Exploratory Paper template. Submitted papers should relate to the research questions outlined in the call. We are especially interested in empirical studies of sharing economy platforms and their socio-technical implications. Both reports of research in progress and completed studies will be accepted. We are also inviting practitioners to submit experience reports about existing technologies.

The workshop organisers will select the position papers based primarily on their ability to generate fruitful discussion of important issues and also to provide examples of practice related, high quality case studies. At least one author of each accepted paper must attend the workshop. The accepted papers will be made available to the participants in advance and discussants will be assigned to each paper.

References

- Alizadeh, F., T. Jakobi, A. Boden, G. Stevens, and J. Boldt (2020): ‘GDPR Reality Check-Claiming and Investigating Personally Identifiable Data from Companies’. In: *2020 IEEE European Symposium on Security and Privacy Workshops (EuroS&PW)*. pp. 120–129.
- Barwise, P. and L. Watkins (2018): ‘The evolution of digital dominance’. In: *Digital Dominance: The Power of Google, Amazon, Facebook, and Apple*. Oxford University Press, pp. 21–49.
- Bellotti, V., A. Ambard, D. Turner, C. Gossmann, K. Demkova, and J. M. Carroll (2015): ‘A Muddle of Models of Motivation for Using Peer-to-Peer Economy Systems’. In: *Proceedings of the 33rd Annual ACM Conference on Human Factors in Computing Systems*. Seoul, Republic of Korea, pp. 1085–1094, Association for Computing Machinery.
- Bellotti, V. M., S. Cambridge, K. Hoy, P. C. Shih, L. R. Handalian, K. Han, and J. M. Carroll (2014): ‘Towards community-centered support for peer-to-peer service exchange: rethinking the timebanking metaphor’. In: *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*. Toronto, Ontario, Canada, pp. 2975–2984, Association for Computing Machinery.

- Bialski, P. (2012): 'Technologies of hospitality: How planned encounters develop between strangers'. *Hospitality & Society*, vol. 1, no. 3, pp. 245–260.
- Bødker, S., M. Lewkowicz, and A. Boden (2020): 'What's in a word? Platforms Supporting the Platform Economy'. In: *Proceedings of the 11th Nordic Conference on Human-Computer Interaction: Shaping Experiences, Shaping Society*. pp. 1–10.
- Bossauer, P., T. Neifer, G. Stevens, and C. Pakusch (2020a): 'Trust versus Privacy: Using Connected Car Data in Peer-to-Peer Carsharing'. In: *Proceedings of the 2020 CHI Conference on Human Factors in Computing Systems*. pp. 1–13.
- Bossauer, P., C. Pakusch, and D. Schreiber (2020b): 'Digitale Plattformen - Der virtuelle Marktplatz für den Kunden'. In: *Digital Business*. Litello, pp. 64–70.
- Bossauer, P., D. Schreiber, T. Neifer, C. Pakusch, and G. Stevens (2020c): 'Dezentralisierung der Sharing Economy–Potentiale Blockchain-basierter Sharing-Plattformen'. In: *WI 2020 Proceedings. 15th International Conference on Wirtschaftsinformatik*.
- Carroll, J. M. and J. Beck (2019): 'Co-designing platform collectivism'. *CoDesign*, vol. 15, no. 3, pp. 272–287.
- Casilli, A. and J. Posada (2019): 'The platformization of labor and society'. In: *Society and the Internet: How Networks of Information and Communication are Changing Our Lives*. Oxford University Press, pp. 293–306.
- Clement, R., D. Schreiber, P. Bossauer, and C. Pakusch (2019): 'Mehrseitige Märkte'. In: *Internet-Ökonomie*. Springer, pp. 261–278.
- Conroy, P., F. Milano, A. Narula, and R. Singhal (2014): 'Building consumer trust: protecting personal data in the consumer product industry'. *Deloitte Insights, November*, vol. 13.
- Ganglbauer, E., G. Fitzpatrick, Ö. Subasi, and F. Güldenpfennig (2014): 'Think globally, act locally: a case study of a free food sharing community and social networking'. In: *Proceedings of the 17th ACM conference on Computer supported cooperative work & social computing*. Baltimore, Maryland, USA, pp. 911–921, Association for Computing Machinery.
- Geissinger, A., C. Laurell, C. Öberg, and C. Sandström (2019): 'How sustainable is the sharing economy? On the sustainability connotations of sharing economy platforms'. *Journal of Cleaner Production*, vol. 206, pp. 419–429.
- Gerber, E. M. and J. Hui (2013): 'Crowdfunding: Motivations and deterrents for participation'. *ACM Transactions on Computer-Human Interaction (TOCHI)*, vol. 20, no. 6, pp. 34:1–34:32.
- Huckle, S., R. Bhattacharya, M. White, and N. Beloff (2016): 'Internet of things, blockchain and shared economy applications'. *Procedia computer science*, vol. 98, pp. 461–466.
- Ikkala, T. and A. Lampinen (2015): 'Monetizing Network Hospitality: Hospitality and Sociability in the Context of Airbnb'. In: *Proceedings of the 18th ACM Conference on Computer Supported Cooperative Work & Social Computing*. Vancouver, BC, Canada, pp. 1033–1044, Association for Computing Machinery.
- Kenney, M. and J. Zysman (2015): 'Choosing a future in the platform economy: the implications and consequences of digital platforms'. In: *Kauffman Foundation New Entrepreneurial Growth Conference*, Vol. 156160.
- Kenney, M. and J. Zysman (2016): 'The rise of the platform economy'. *Issues in science and technology*, vol. 32, no. 3, pp. 61.

- Korsgaard, H., M. Lewkowicz, A. Boden, G. Avram, and S. Bødker (2020): 'Studying Technical Mechanisms for Supporting Sharing Communities'. In: *Proceedings of 18th European Conference on Computer-Supported Cooperative Work*.
- Lampinen, A., V. Bellotti, C. Cheshire, and M. Gray (2016): 'CSCW and TheSharing Economy: The Future of Platforms as Sites of Work Collaboration and Trust'. In: *Proceedings of the 19th ACM Conference on Computer Supported Cooperative Work and Social Computing Companion*. New York, NY, USA, p. 491–497, Association for Computing Machinery.
- Malmberg, L., A. Light, G. Fitzpatrick, V. Bellotti, and M. Brereton (2015): 'Designing for Sharing in Local Communities'. In: *Proceedings of the 33rd Annual ACM Conference Extended Abstracts on Human Factors in Computing Systems*. Seoul, Republic of Korea, pp. 2357–2360, Association for Computing Machinery.
- Mcgregor, M., B. Brown, and M. Glöss (2015): 'Disrupting the cab : uber, ridesharing and the taxi industry'. In: *Journal of Peer Production*. pp. 293–306.
- Molz, J. G. (2012): 'CouchSurfing and network hospitality: 'It's not just about the furniture''.
- Orlikowski, W. J. and C. S. Iacono (2000): 'The truth is not out there: An enacted view of the digital economy'. In: *Understanding the digital economy: Data, tools, and research*. Cambridge, MA: MIT Press, pp. 352–380.
- Orlikowski, W. J. and C. S. Iacono (2001): 'Research Commentary: Desperately Seeking the "IT" in IT Research—A Call to Theorizing the IT Artifact'. *Information Systems Research*, vol. 12, no. 2, pp. 121–134.
- Prinz, W. (2018): 'Blockchain and CSCW—Shall we care?'. In: *Proceedings of 16th European Conference on Computer-Supported Cooperative Work-Exploratory Papers*.
- Raval, N. and P. Dourish (2016): 'Standing Out from the Crowd: Emotional Labor, Body Labor, and Temporal Labor in Ridesharing'. In: *Proceedings of the 19th ACM Conference on Computer-Supported Cooperative Work & Social Computing*. San Francisco, California, USA, pp. 97–107, Association for Computing Machinery.
- Scholz, T. (2014): 'Platform cooperativism vs. the sharing economy'. *Big data & civic engagement*, vol. 47.
- Schor, J. B. and C. J. Fitzmaurice (2015): 'Collaborating and connecting: the emergence of the sharing economy'. In: *Handbook of Research on Sustainable Consumption*. Edward Elgar Publishing.
- Seyfang, G. and K. Smith (2002): *The time of our lives: Using time banking for neighbourhood renewal and community capacity building*. NEF.
- Suhonen, E., A. Lampinen, C. Cheshire, and J. Antin (2010): 'Everyday favors: a case study of a local online gift exchange system'. In: *Proceedings of the 16th ACM international conference on Supporting group work*. Sanibel Island, Florida, USA, pp. 11–20, Association for Computing Machinery.
- Teodoro, R., P. Ozturk, M. Naaman, W. Mason, and J. Lindqvist (2014): 'The motivations and experiences of the on-demand mobile workforce'. In: *Proceedings of the 17th ACM conference on Computer supported cooperative work & social computing*. Baltimore, Maryland, USA, pp. 236–247, Association for Computing Machinery.
- Tilson, D., K. Lyytinen, and C. Sørensen (2010): 'Research Commentary—Digital Infrastructures: The Missing IS Research Agenda'. *Information Systems Research*, vol. 21, no. 4, pp. 748–759.