Farshchian, B. A.; Grisot, M; Hochwarter, S.; Islind, A. S.; Mikalsen, M.; Parmiggiani, E.; Vassilakopoulou, P. (2021): Workshop on Platform-Supported Cooperative Work. 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-wsmc04

Platform-Supported Cooperative Work

Babak A. Farshchian¹, Miria Grisot², Stefan Hochwarter¹, Anna Sigríður Islind³, Marius Mikalsen^{1,4}, Elena Parmiggiani¹, Polyxeni Vassilakopoulou⁵

Norwegian University of Science and Technology¹, University of Oslo², Reykjavik University³, SINTEF⁴, University of Agder⁵

babak.farshchian@ntnu.no, miriag@ifi.uio.no, stefan.hochwarter@ntnu.no, annasi@ru.is, Marius.Mikalsen@sintef.no, parmiggi@ntnu.no, polyxenv@uia.no

Abstract. Platformization is transforming the way work is organized in a variety of businesses. The CSCW literature contains substantial amount of research on platforms, but this research to date has mainly been focusing on two-sided global platforms such as social media, on-demand labor, and crowdsourcing platforms. In many European countries, platformization of traditional organizations, both private and public, is well underway and accelerated by the pandemic. Platformization as a process can affect how we design systems—i.e. the platform itself and its peripheral applications and customizations—and how we use platforms for collaboration. Through this workshop we want to engage academics and practitioners in a discussion of the platformization of collaborative work in organizations. Topics include but are not limited to platform design and development, platformization processes, and platforms and work practice evolution. The socio-technical nature of platforms indicates that working across disciplines has become crucial for platform research. We therefore invite participants from all relevant disciplines.

Theme of the workshop

Platformization is transforming the way work is organized in a variety of businesses thanks to the emergence of cloud-based technologies and the recent growth of global companies such as Google, Amazon, Facebook, and Apple, all of whom utilize platform models (Tiwana, 2013). A *digital platform* often underlies modern platform organizations. A digital platform can be defined as "a set of digital resources—including services and content—that enable value-creating interactions between external producers and consumers" (Constantinides, Henfridsson, & Parker, 2018). Platforms are socio-technical systems and this understanding is key to discussing their role in contemporary organisations. A platform is a piece of software, while it is also an intermediary that connects needs with resources. A platform is a hybrid between market, firm and a community, and an organizational, technical and regulatory construct that facilitates value creation (Alaimo, Kallinikos, & Valderrama, 2019; de Reuver, Sørensen, & Basole, 2018; Islind, 2018).

The CSCW literature contains substantial amount of research on platforms, but this research to date has mainly been focusing on two-sided global platforms such as social media, on-demand labor, and crowdsourcing platforms (Hansson, Ludwig, & Aitamurto, 2019; Harmon & Silberman, 2018; Martin, Hanrahan, O'Neill, & Gupta, 2014). Such platforms are called *industry* platforms by Gawer (2014), governed by open ecosystems. Gawer also defines *internal* platforms and *supply-chain* platforms, where the scope of the platform is pre-defined to include organizations and their closest collaborators, as opposed to the more global scope of industry platforms such as Facebook and Uber. In this workshop we want to focus on how internal platforms influence and are influenced by workers in workplaces. Through our workshop we want to emphasize that platforms are not only being used by global companies in consumer-oriented markets. Platforms are also invading our everyday work practices in our organizations, and demand new ways of working and new types of relationships to our colleagues, management, and users.

In many European countries, *platformization* of organizations, both private and public, is well underway (Casilli & Posada, 2014; Gustavsson & Ljungberg, 2019; Janssen & Estevez, 2013; Vassilakopoulou et al., 2017). We define platformization as the process of organizational, social, financial and technological transformation that an organization often must go through to effectively utilize a platform model (see Bygstad & Hanseth, 2018; Farshchian & Thomassen, 2019; Islind, Lindroth, Lundin, & Steineck, 2019; Zhu & Furr, 2016). Platformization as a process can affect how we design systems –the platform and its peripheral applications and customizations –and how we use systems for collaboration. Through this workshop we also want to shed light on how platformization affects participatory design processes, but also how collaboration

is affected by platformization and its end product. The topics for the workshop include the following:

- Participatory platform design and development: This includes both design (Farshchian & Thomassen, 2019; Islind, Lindroth, Snis, & Sørensen, 2016) and/or acquisition/implementation (Pollock, Williams, & D'Adderio, 2007; Roland, Sanner, Sæbø, & Monteiro, 2017; Vassilakopoulou et al., 2017). The role of co-creation, co-design and participation is important. Is platform-centric participatory design different than PD in general and participatory infrastructuring (Parmiggiani & Karasti, 2018)? Platforms create a power imbalance by putting some participants in charge of the "platform core" and others in the periphery. How does this, together with the fact that platforms are often initially designed by others, affect participation during design and acquisition?
- Platformization processes: When platforms are being designed, developed and deployed in the nascent phases, the practices involved can be highly influential, thus shaping the platformization process. The interplay of platformization with work practices and how practices can partake in platformization is thereby of interest.
- Platform and work practice evolution: Platforms are evolving in the direction of opening up specializing, with the aim of lower transaction costs and larger markets (Gawer, 2014). This means changes to work practices (Zysman & Kenney, 2018). For instance, everyone –including those who work in normal employment relationships –might gradually have to cope with work situations that resemble those of freelancers. Paradoxically this might happen faster in the public sector. Currently we are witness to many healthcare and public sector-related platformization projects going on in European countries. Such organizational platforms can be all-encompassing, creating totally new digital workplace experiences.

The socio-technical nature of platforms indicates that working across disciplines has become crucial for platform research. For instance, legal and regulatory aspects go hand in hand with technical affordances when it comes to creating a platform-based work environment. While the IT part of platform development is quite global, many other disciplines (workplace regulations, tax regimes, cultural aspects) are highly local to specific national, cultural, economic and social settings. For the workshop we encourage multidisciplinary research submissions.

Workshop activities and goals

Our goal is to bring together researchers with common interest in the interplay between organizational platforms and work practices, to investigate the relationship with CSCW research. We want to find out what we as the CSCW community can learn from and teach to other neighboring disciplines about how platforms affect work, and how work practices affect the formation of platforms. Through the workshop we want to bring together researchers who work in this

field. In this way we want to create a community of practice for future research and related projects.

The workshop will be announced in known channels, and submissions will be requested. We will however also consider accepting participants based on their interests, during the conference. We plan to set up a panel, including researchers from CSCW but also from close disciplines including information systems to bring together complementary lenses for studying the phenomenon. The panel will be used to start a discussion, where the participants who wish will present cases from their own research. During the second half of the workshop we will employ group processes and work on developing research topics, creating an overview of the state-of-the-art, and a list of future challenges. The results will be made available as a workshop report.

A later outcome from the workshop will be an edited volume –a book or a special issue of the CSCW or other relevant Journal –depending on the nature and the maturity of the research contributed by the workshop participants.

Duration of the workshop

We plan to organize a full-day workshop. The first half of the workshop will include a panel discussion and presentations from the participants. The second half will include a group process and the creation of a draft of a workshop report.

Workshop organisers

Babak Farshchian is associate professor of software engineering and information systems at the Norwegian university of science and technology (NTNU). Babak's research interests include the digitalization of the public sector, in particular health and social services.

Miria Grisot is an associate professor in information systems at the University of Oslo. Miria's research interests include the digitalisation of the public sector, in particular healthcare and social services with a focus on the changing nature of collaborative work.

Stefan Hochwarter is a PhD candidate in information systems and computer-supported cooperative work at the Norwegian University of Science and Technology (NTNU). Stefan's research interest lies primarily in the digitalization of healthcare services, especially within the area of assistive technologies, platforms and participatory design.

Anna Sigridur Islind is assistant professor in information systems at the School of Computer Science at Reykjavik University in Iceland. Anna Sigridur's research

interests include design, development and use of small-scale platforms in general and for wellbeing and health purposes in particular.

Marius Mikalsen is a senior research scientist at SINTEF Digital and has a post doc position at the Norwegian university of science and technology (NTNU). Marius' research interests include large scale information systems, digital platforms, information infrastructures and digital transformation.

Elena Parmiggiani is associate professor of CSCW and Digital Collaboration at the Norwegian University of Science and Technology (NTNU). Elena's research interests include the empirical study of the design, development, use of platforms and infrastructures in the public and private sector, in particular in connection with environmental monitoring and oil and gas data management.

Polyxeni Vassilakopoulou is an associate professor on Information Systems at the University of Agder. Polyxeni's research interests include the design of ICT-enabled interventions in work systems and the bearing of digital technology on people and organizations.

Maximum number of participants expected

We expect 10-15 participants.

Means of recruiting and selecting participants

We will prepare a call for papers that will be distributed through mailing lists and social media. We might also invite researchers directly. The workshop will have a web page and we will create a project in Researchgate.net in order to involve participants before and after the workshop. Participants who submit position papers of 2-4 pages will be prioritized. All participants will be asked to contribute a peer-review of each other's submissions.

References

- Alaimo, C., Kallinikos, J., & Valderrama, E. (2019). Platforms as service ecosystems: Lessons from social media. *Journal of Information Technology*.
- Bygstad, B., & Hanseth, O. (2018). Transforming digital infrastructures through platformization. In *ECIS 2018 Proceedings*. Portsmouth, UK: AIS Electronic Library.
- Casilli, A., & Posada, J. (2014). The platformization of labor and society. In *Society and the Internet* (pp. 293–306). Oxford University Press.

- Constantinides, P., Henfridsson, O., & Parker, G. G. (2018). Introduction—Platforms and Infrastructures in the Digital Age. *Information Systems Research*, 29(2), 381–400.
- de Reuver, M., Sørensen, C., & Basole, R. C. (2018). The Digital Platform: A Research Agenda. *Journal of Information Technology*, 33(2), 124–135.
- Farshchian, B. A., & Thomassen, H. E. (2019). Co-Creating Platform Governance Models Using Boundary Resources: a Case Study from Dementia Care Services. *Computer Supported Cooperative Work (CSCW)*.
- Gawer, A. (2014). Bridging differing perspectives on technological platforms: Toward an integrative framework. *Research Policy*, 43(7), 1239–1249.
- Gustavsson, M., & Ljungberg, J. (2019). Platformization of a Cloud Service. In *Fortieth International Conference on Information Systems* (pp. 1–15). Munich, Germany: AIS Electronic Library.
- Hansson, K., Ludwig, T., & Aitamurto, T. (2019). Capitalizing Relationships: Modes of Participation in Crowdsourcing. Computer Supported Cooperative Work (CSCW), 28(5), 977–1000.
- Harmon, E., & Silberman, M. S. (2018). Rating Working Conditions on Digital Labor Platforms. *Computer Supported Cooperative Work (CSCW)*, 27(3–6), 1275–1324.
- Islind, A. S. (2018). *Platformization: Co-Designing Digital Platforms in Practice*. University West. Retrieved from http://www.diva-portal.org/smash/record.jsf?pid=diva2%3A1238297
- Islind, A. S., Lindroth, T., Lundin, J., & Steineck, G. (2019). Co-designing a digital platform with boundary objects: bringing together heterogeneous users in healthcare. *Health and Technology*, *9*(4), 425–438.
- Islind, A. S., Lindroth, T., Snis, U. L., & Sørensen, C. (2016). Co-creation and Fine-Tuning of Boundary Resources in Small-Scale Platformization. In L. S. U. (Ed.), Nordic Contributions in IS Research. SCIS 2016. Lecture Notes in Business Information Processing (Vol. 259, pp. 149–162). Springer.
- Janssen, M., & Estevez, E. (2013). Lean government and platform-based governance-Doing more with less. *Government Information Quarterly*, 30(SUPPL. 1), S1–S8.
- Martin, D., Hanrahan, B. V, O'Neill, J., & Gupta, N. (2014). Being a turker. In CSCW'14. Proceedings of the 17th ACM conference on Computer supported cooperative work & social computing, Baltimore, Maryland, USA, February 15-19, 2014 (pp. 224–235). New York: ACM Press.
- Parmiggiani, E., & Karasti, H. (2018). Surfacing the arctic: politics of participation in infrastructuring. In *Proceedings of the 15th Participatory Design Conference on Short Papers, Situated Actions, Workshops and Tutorial PDC '18* (pp. 1–5). New York, New York, USA: ACM Press.
- Pollock, N., Williams, R., & D'Adderio, L. (2007). Global software and its provenance: Generification work in the production of organizational software packages. *Social Studies of Science*, *37*(2), 254–280.
- Roland, L. K., Sanner, T. A., Sæbø, J., & Monteiro, E. (2017). P for platform: Architectures of large-scale participatory design. *Scandinavian Journal of Information Systems*, 29(2), 3–34.

- Tiwana, A. (2013). *Platform Ecosystems: Aligning Architecture, Governance, and Strategy*. Waltham, MA, USA: Morgan Kaufmann Publishers Inc.
- Vassilakopoulou, P., Grisot, M., Jensen, T. B., Sellberg, N., Eltes, J., Thorseng, A. A., & Aanestad, M. (2017). Building National eHealth Platforms: the Challenge of Inclusiveness. *Thirty Eighth International Conference on Information Systems*, 1–14.
- Zhu, F., & Furr, N. (2016). Products to Platforms: Making the Leap. *Harvard Business Review*, 94(4), 18. Retrieved from https://hbr.org/2016/04/products-to-platforms-making-the-leap
- Zysman, J., & Kenney, M. (2018). The next phase in the digital revolution. *Communications of the ACM*, 61(2), 54–63.