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## Why Do CSCW Insights Lose Out to Management Intuitions?

Lars Rune Christensen<sup>1</sup>, Ingrid Erickson<sup>2</sup>, Richard Harper<sup>3</sup>, Myriam Lewkowicz<sup>4</sup> & Gerolf Nauwerck<sup>5</sup>

IT University of Copenhagen<sup>1</sup>; School of Information Studies, Syracuse University<sup>2</sup>; Institute for Social Futures, Lancaster University<sup>3</sup>; Université de Technologie de Troyes<sup>4</sup>; Uppsala University<sup>5</sup>

*lrc@itu.dk<sup>1</sup>, ierick@gmail.com<sup>2</sup>, r.harper@lancaster.ac.uk<sup>3</sup>, myriam.lewkowicz@utt.fr<sup>4</sup>, gerolf.nauwerck@it.uu.se<sup>5</sup>*

**Abstract.** Workplaces in all sectors are experiencing digitalization spurred primarily by increasing access to data and AI. Many initiatives are failing to produce expected outcomes, and are even producing negative outcomes on workplace wellbeing. The insights generated by CSCW researchers seem to have failed to reach their targets: the challenges and opportunities for successful appropriation of technology have rarely been adopted by managers, or they were not articulated in a way that facilitated follow-on success. A failure of academic research to impact the world is a known problem – information systems research is abundant with analysis of the managerial challenges that have not been noted by managers themselves – it has been less discussed among CSCW researchers. In this workshop, we wish to gather researchers and practitioners interested

in identifying ways to better transfer findings ‘from the field’ to the managerial level (as well as to employees and their representatives).

## Theme of the workshop

Three decades ago, Grudin (1988) asked ‘Why CSCW Applications Fail’. He identified three interconnected causes, one of which was the lack of management intuition for CSCW applications:

“a manager with good intuition may quickly get a feel for the user’s experience with a word processor, spreadsheet, or so forth. But a typical CSCW application will be used by a range of user types – people with different backgrounds and job descriptions, all of whom may have to participate in one way or another for the application to succeed. The decision-maker’s intuition will fail when an appreciation of the intricate dynamics of such a situation is missing.” (p. 87)

The main thrust of Grudin’s argument – Grudin’s paradox – is that CSCW applications in work settings tend to redistribute labour in ways the management does not naturally intuit. Their intuitive focus may be on the benefits for one group, and this can lead them failing to understand the increased burden for another. Managers may also fail to recognise the additional work some new systems may imply for them. More generally, Grudin points to the overall complexity of understanding and evaluating CSCW applications.

Researchers in the field of computer supported cooperative work have a long tradition of conducting research in various workplaces, having experienced both the challenges and opportunities for successful adaptations and appropriations of technology and have thus been exploring the intuitive knowledge Grudin writes about. Their research shows that in many respects his observations are right, but need supplementing - failures in delivering expected impact are rarely caused by a lack of intuition on the part of managers alone, but are combined with other concerns. In fact, CSCW research has shown that technology development and implementation require a radically comprehensive approach that includes ethnographic and other forms of in-depth workplace studies in which an enriched ‘intuitive understanding’ is just a part of it (Schmidt & Bannon, 2012).

Since the beginning of CSCW 30 years ago, both technology and organisations have become more complex and intertwined. Furthermore, as cooperative systems have come into play, these relations have become dynamic and flux-like. Indeed, Schmidt (1994) wrote about the open endedness of cooperative work and the contingent and porous organizational boundaries that might result. His insight is clearly right.

Besides, while Rossitto and Lampinen (2018) note that “CSCW research has a history of contending with the problems of managerial structures and the digitalization of the workplace” the bulk of these works concern themselves with systems before what has come to be known as the ‘third wave’ (Harrison et al., 2011; Rogers, 2012). Indeed, the emergence in continental Europe of the term

Industry 4.0 points towards yet further change in the kinds of technology affecting change in organisational contexts (c.f. Ludwig et al., 2018; Wurhofer et al., 2015).

All the more surprising then, that indeed, the field of workplace studies that might have examined the changing landscape of technology and change in industry has been rather neglected in CSCW over the last fifteen years (Lewkowicz and Liron, 2019; Meneweger et al., 2018).

Taken as a whole, these changes underline the challenge for CSCW researchers to both understand the changing workplaces and aim to improve technology “while attending to and perhaps improving the conditions for work” (Holten Møller et al., 2017). This is all the more critical given “the remarkably enduring importance of workplace stress [...] and the role of [information systems] in contributing to that”, as emphasized by Tarafdar et al. (2017, p. 27).

Although there has always been a debate surrounding methodological approaches in CSCW, as well as insights into the specific challenges posed by large-scale systems, it is clear that much of the recent wave of papers is united in a call for new research approaches, summarised by Wulf et al. (2015) as that the “agenda we support here is one which moves us away from the ‘small scale’.” In a similar vein, Monteiro et al. (2013) see a need to move from what they consider localist studies towards large scale infrastructures, and in doing so re-conceptualizing the role and nature of design. Jackson et al. (2014) argue that “better attention to the mutually constitutive relations between design, practice and policy can expand the reach, depth, and impact of CSCW scholarship.” Similarly, Fitzpatrick and Ellingsen (2012) suggest that CSCW researchers should broaden their research and “increasingly pay attention to the formative stages of the technology – when and where the policies are made as well as the procurement processes”.

Here, we wish to focus on one particular aspect of this wider scope, namely the managers. We paraphrase Wulf et al. (2015) and suggest that we see management as being a relevant backdrop to our concerns. Work should remain in the foreground for CSCW but at the same time we must also acknowledge the challenges facing organisations in general and management in particular. An important body of research converges around the concept of paradox; “*the* phenomena for complex times” as summarised by Fairhurst et al. (2016). In short, they understand paradoxes as persistent contradictory elements, impervious to solution. One example is as an organisation’s need to balance both exploitation and exploration, a capability often defined as ambidexterity. Within paradox studies, Fairhurst et al. (2016) note a number of themes, including tensions, dynamics, power and multiplicity. In addition to this, there is the recent influx of “data-driven” mechanisms in management that tightly couple past forms of managerial intuition with more computational forms of analysis (c.f. Lee et al., 2015).

Many researchers have voiced concerns relating to a gap between the research community and organisational stakeholders, Wulf et al. (2015, p. 2) state that: “We

have an incomplete understanding of the real-world problems entailed in marrying academic and organisational interests.” Indeed, this issue is so complex that it is emerging as a “multi-faceted and ambiguous research field” in its own, according to Skute et al. (2019). Narrowing down on ICT, Schubert et al. (2015) have studied industry collaborations in the field of information systems, and identified a number of archetypes for successful collaboration that can help researchers reflect on their own work.

In particular – with a nod to Grudin’s 1988 notion of management intuition – we wish to address the state of “management intuition” for CSCW today, and how we, as researchers, can strengthen this “intuition”. As has been noted (Lewkowicz and Liron, 2019) researchers may have turned to practice, but this is a turn that in many cases still needs to be taken by the industry as well. Put in a different way by Fitzpatrick and Ellingsen (2012, p. 649):

“we need to find out how our findings are listened to by users, managers, vendors and policy makers. We consider this as quite a practical matter, where we want the different stakeholders to pay attention to our findings and incorporate them in their design, procurement and implementation strategies”.

The importance of leadership and top management support is well established (c.f. Liang et al., 2007). Here, we are more interested in what might be conceived of as how management make sense of technology (c.f. Bansler & Havn, 2006), while acknowledging that this sensemaking is occurring within highly dynamic and fast evolving work settings – sometimes within a single organisation or team. Thus, as pointed out by Lüscher & Lewis (2008), sensemaking is also important for middle managers, as they negotiate the implementation of organisational change.

This discussion on how to reach management has already started in the ECSCW conference, in particular during panels in 2018 in Nancy (“CSCW in Manufacturing Environments: Towards a European Research Agenda”), and in 2019 in Salzburg (“Envisioning Futures of Practice-Centred Computing”), and is also taking place in EUSSET, which shares this goal of finding ways for practice-focused research to reach the top and middle management of organizations and institutions.

In this workshop, we wish to bring together researchers interested in experiences from the field and identify ways to better reach users, managers, vendors and policy makers.

The topics dealt with in this workshop include but are not limited to:

- Theoretical
  - Theorizing management in CSCW – ambidexterity and appropriation?
  - Which concepts and theories defined by the CSCW community can be illustrated as useful for managers / policy makers?
  - Do we need a new conceptual framework to address the new wave of digitization of organizations, and facing the rise of AI?
- Methodological

- How do we get different stakeholders to pay attention to our findings and incorporate them in their design, procurement and implementation strategies?
- Can we formulate Implications for managers in manager's terms?
- Practical
  - Positive experiences from collaborations involving researchers and management
  - Worst experiences: failures in reaching the management

## Workshop activities and goals

**Pre-workshop plan:** The accepted papers will be circulated to prepare the attendees for discussions at the workshop. Beyond the themes highlighted here by the workshop organizers, other themes for the workshop emerging from the position papers will be posted on the website. A key discussant, identified among the workshop attendees, will be assigned to each position paper to facilitate interaction and engagement in the workshop. The participants will prepare a 10-minute presentation to be delivered at the first half of the workshop.

**Post workshop plan:** We plan to consider extended versions of selected contributions for a special issue in the CSCW journal. We also plan to extract practical documents to support the communication and lobbying activities of EUSSET.

## Duration of the workshop

The workshop is planned as a full day event divided into two sessions and will involve additional online activities organized both before and after the workshop. In the first half of the workshop (morning session), participants will briefly present their research on the topics and the discussant will initiate a short discussion by asking 2-3 questions. The second half of the workshop (afternoon) will consist of a brainstorming session where the topics of the workshop are further explored according to the post workshop plan.

## Workshop Organizers

**Lars Rune Christensen** is Associate Professor at the IT University of Copenhagen and has published extensively on the relationships between humans, their practices, and information technology. His ongoing research is on digitalisation in

government and on digital humanitarian efforts directed at increasing access to healthcare for the Rohingya refugees in Bangladesh.

**Ingrid Erickson** is Assistant Professor at the School of Information Studies at Syracuse University. Her research focuses on the future of work, both in the way that mobile devices and ubiquitous digital infrastructures encourage the development of new sociotechnical practices and the adoption of artificial intelligence in enterprise contexts affect workers' autonomy and skill development.

**Richard Harper** has written numerous books on all aspects of the digital and its role in society, including in organisational change. He has worked in Xerox and Microsoft Research and is now director of the Institute for Social Futures at Lancaster University.

**Myriam Lewkowicz** is Full Professor of Informatics at Troyes University of Technology (France), where she heads the teaching program "Management of Information Systems", and the pluridisciplinary research team Tech-CICO. Her interdisciplinary research involves defining digital technologies to support existing collective practices or to design new collective activities. In 2017, she was elected the next chair of the European Society for Socially Embedded Technologies (EUSSET).

**Gerolf Nauwerck** is a long term IT-strategist and business analyst now on a leave of absence to pursue a PhD in HCI at Uppsala University. His focus is the impact of the digital transformation on employees in the public sector in Sweden.

## Maximum number of participants expected

15

## Means of recruiting and selecting participants

Participants will be recruited through:

- EUSSET mailing list
- CSCW mailing list
- IS mailing lists
- Announcements on twitter and similar channels
- Workshop website

A workshop website will be created and updated until the closing of the workshop.

Participants will be selected based on their position paper submissions (up to 4 pages in length using the ECSCW Exploratory paper format). The selection will be made by the workshops' organizers on the basis of their interest, compliance with the workshop themes, and the extent (and diversity) of their backgrounds.

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