BEYOND THE BUZZ:
SCHOLARLY APPROACHES TO THE STUDY OF WORK

Introduction

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The place of work in organization studies and management has waxed and waned. While at the foundation of the field, the growing interest in the organizational environment and the shift in the locus of research production to business schools seems to have reduced its centrality (Barley & Kunda, 2001). Yet, today, social and technological developments have raised again interest in the study of work. These developments include, for example, temporary, location-independent, and less-hierarchical forms of organizing (Bechky, 2006; Lee & Edmondson, 2017; Rhymer, 2023); platform-mediated employment relations (Corporaal & Lehdonvirta, 2017; Vallas & Schor, 2020); and automated and algorithmic control systems (Bailey et al., 2019; Kellogg et al., 2020). These and related trends have led organization and management scholars to question—once more—what it means to work and what work means (Barley et al., 2017). Still, despite much buzz around "the future of work" and similar taglines, popular and academic debates seem oblivious to the long scholarly traditions that have examined the many facets of work. This is unfortunate. Such scholarship could better equip us to research and explain contemporary developments. By looking back and considering these traditions, we can more reflexively grasp what is happening to work and what that means for our scholarly understanding of it.

To that end, this curated discussion brings together experts in key approaches to the study of work. It emerged from conversations in a professional development workshop at the Academy of Management's Annual Meeting in 2022, which highlighted the importance of acknowledging the long history of the topic. Seven contributions have been selected to provide a panorama of what we know about work while pointing to some uncharted territories worthy of future exploration. This is particularly important because organization and management research faces obstacles typical of non-paradigmatic fields. Researchers often run the risk of generating non-cumulative insights or, even worse, re-discovering them.

Hence, the overview provided here can hopefully support a fuller view of this area of research and a more coherent scholarly dialogue.

Reflecting the expansiveness of the study of work, the authors touch on various analytical levels in this curated piece. While some focus on group and occupational dynamics, others explore fundamental building blocks of work (i.e., tasks) or take a longer temporal view to examine how people connect experiences in their careers. They also suggest that the study of work is intermingled with various topics—e.g., well-being, values, technology, regulation, etc. Given such expansiveness, it is perhaps not surprising that the collective message in this curated piece is around a multi-layered and multi-faceted view of work. Contributions outline the principles behind and value of systemic, contextualized, or holistic view of work and report insights on how changes in some work components reverberate in its broader ecology. Thus, they remind us of the deeper infrastructure behind widely debated trends (Star, 1999). For example, the ideologies behind algorithmic management; the classification systems shaping status and expertise recognition; the social and occupational norms informing career choices; or the invisible practices supporting (virtual) collaborations.

One of the hallmarks of the scholarly and popular debate on work seems to be that, perhaps ironically, its changing nature is enduring. Scholars and industry analysts have discussed 'unprecedented chaos in the labor market' or 'growing flexibility and dynamism in jobs' for decades. Yet, as Beth Bechky and Siobhan O'Mahony remind us in their piece, sometimes it appears that we suffer from collective goldfish memory or assume that existing scholarship does not apply to new (or updated) technologies, employment relations, or ideas. Yet, previous research on industrialization and bureaucratization shows precisely that long before digital apps, there was work blurring private and public spheres; payment by piece or task accomplished; and management control through impersonal means, such as the assembly line (Blau & Scott, 1964; Jacoby, 1985; Langton, 1984; Monteiro & Adler, 2022). While career progression through lateral or even zig-zag movement might be more prevalent today, it has long been a feature for some occupations (Becker, 1952; O'Mahony & Bechky, 2006). And Zoom or Skype did not inaugurate distributed collaboration which has long happened via letters (Fayard & Metiu, 2014).

To be sure, new technologies and ideas have always changed how work is carried out. Yet a deeper understanding of scholarship—and more reflexivity from us—is needed to avoid taking at face value ideas about how work might be changing (Barley et al., 2017). Entrepreneurs, gurus, industry evangelists, powerful associations, and other actors spread

discourses that frame new technologies or employment arrangements as desirable, necessary, or even inevitable (Newell et al., 2001; Nicolini, 2010; Piazza & Abrahamson, 2020). We risk being complicit in such discourses when we naturalize contingent developments, universalize trends, or further broadcast narratives about work that privilege specific interests, values, etc. By helping us conceptualize popular ideas in a theory-informed way, the body of knowledge that distinguishes us as academic professionals—built by the scholarly labor of our forebearers—may help us gain some perspective. Gretta Corporaal's contribution exemplifies that, discussing how research often risks narrowly over-attributing changes to algorithms while missing the broader context and actors producing them.

Familiarizing ourselves with multiple approaches also lets us see that whatever is happening to work is neither homogenous nor monolithic. In an introduction to a special issue on the study of work decades ago, Everett Hughes (1952) urged researchers to be ethnologists of their "own time and place, illuminating the less obvious aspects of [their] own culture" and warned about the perils of limiting and directly coupling research to what passes as typical labor in a given time and place (p. 424). When Hughes was writing, manufacturing and industry were paradigmatic. Today, ironically, large complex industries and traditional bureaucratic organizations might be considered outliers—or at least, old-fashioned (Monteiro & Adler, 2022). Yet, we would do well to (continue to) explore them.

The variety of approaches in this curated piece also raises questions on the limits of work as a concept. Work underpins various scholarly discussions, such as practice-based and processual research (Feldman & Orlikowski, 2011; Langley et al., 2013; Nicolini, 2013). It is also at the roots of research on professions, especially the one attentive to how such expert groups apply expertise to tasks (Abbott, 1988) and our understanding of occupational communities: it is the work that people do that produces the shared understandings, norms, and values holding these collectives together (Van Maanen & Barley, 1982). More generally, focusing on work revealed to management theory the skillful ways in which people co-design tasks (Cohen, 2013), fashion new occupations (Nigam & Dokko, 2019), inter-relate with each other (Okhuysen & Bechky, 2009), and (strive to) generate conditions to work according to specific ideals, goals, or mandates (DiBenigno, 2018; Huising, 2015; Nicolini, 2011).

Yet, some scholarly conversations stretch the notion of "work" in ways that dilute its connection to concrete human activity. To be sure, as this curated piece suggests, studying work involves looking not just at what a person does but also zooming in to investigate its elements (e.g., how tasks are planned, executed, or abandoned) and zooming out to explore its broader ecology (e.g., how meanings about an occupation circulate). Gina Dokko's

contribution is a great example in this vein. It shows that a work perspective on careers can help us see how different contexts pose challenges to translating experience across jobs, while a career perspective on work indicates how ideas about how work should be organized circulate.

However, scholars risk muddling work as an object of analysis when they use the concept too broadly as a substitute for agency, intentions, or aspirations—instead of actual labor. This issue might be the result of assumptions underpinning our own scholarly work. After all, "we ourselves are part of an often unnoticed historical, social, and professional context … we participate in institutions—such as business schools—and processes—such as tenure—that shape our capacity to theorize and know work" (Okhuysen et al., 2013, p. 493). Specifically, as discussed by Bourdieu (1990, 2003), we risk bringing a scholastic perspective and turning "work" into a conceptual black box which we assume as the source for outcomes without exploring the actual labor producing them. Or privileging abstract elements spurious to the social order assumed to underpin (or even determine) how work unfolds. In contrast, this curated piece is a reminder that people's actual labor is the potential Archimedean point for studying work.

These considerations are critical in light of the growing attention—or even intellectual anxiety—among management scholars regarding the relevance of (their) research. It is thus interesting to note—as the contribution by Davide Nicolini about the Tavistock Institute shows—that researchers have long collaborated with research participants without losing sight of the value of theory. Yet, the rush for impact or the "seduction of being useful" can "diminish our critical awareness of the … the ways our work is deployed" (Vaughan, 2006, p. 389). For one, how work is represented and classified has consequences for its status and recognition, as shown by the contribution of Arvind Karunakaran. Thus, we should be attentive to how we depict and potentially even privilege some types of workers, activities, and experiences over others in our analytical work. Lest we forget, as Lisa Cohen and Ingrid Ericsson discuss in this piece, that some types and aspects of work can be more visible than others.

The curated discussion opens with two pieces about approaches that emerged around industrialization and early informatization, thus providing historical context for the topic. Davide Nicolini provides an overview of the socio-technical system approach developed at the Tavistock Institute of Human Relations, while Ingrid Erickson offers insights into the study of the work from the field of Computer-Supported Cooperative Work (CSCW). Both approaches show the conceptual dividends of studying work while keeping an eye on the

interdependences among its various components and performance in situated contexts. The two subsequent contributions make such ideas more tangible by showing how scholars may zoom in and out to trace the association of work with different units of analysis. In the first of these, Cohen builds a case for continued attention to the most elementary unit of work—tasks. In the second, Dokko describes why it is crucial to understand how work relates to a more aggregated unit—careers. Together, these contributions show how attending to structures and processes that make up work or are made up of work can help us better understand antecedents for how work is accomplished and outcomes of interest—e.g., job performance or motivation.

The next two contributions provide insights into how elements in the broader ecology in which work is nested inform resources and conditions for it. Arvind Karanukaran makes the case that official/institutional classification by government bureaucracies, as well as informal/cultural classification by clients and the general public, shape what types of tasks, skills, and expertise are recognized and valued and which ones are stigmatized and devalued. Gretta Corporaal makes us reconsider what we talk about when we talk about algorithms, showing the dangers of overattributing and essentializing the role of such technologies in managing workers. Wrapping up the piece, Bechky and O'Mahony return to the central question of what is new in this long-lasting topic. This brings us full circle to consider how the past study of work can inform our understanding of the future of work. Together, this curated discussion makes us more aware of the collective journey scholars have charted so far while posing new questions and opening or re-directing new avenues of inquiry. Hopefully, it will allow us to see further by better understanding the work of studying work.

When The Old Was New:
The Tavistock Institute's Socio-Technical Approach to Work

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The rapid transformations of how we work and the introduction of advanced natural language processing-based technologies (Krakowski, Luger & Raisch, 2023) brought in sharp relief the question of integrating the human and technical side of work and how to study productive activities and their changes more in general. Because of the pervasiveness of "innovation speak" (Vinsel and Russel, 2020) and the tendency of modern academics to fall victim to the latest fashions (Sunstein, 2001), the discussion is almost always cast as if the problem were new. As Bechky and O'Mahony note elsewhere in this curated piece, this quasi-ideological assumption makes it difficult to pinpoint what is empirically and theoretically novel from what is not. It also exposes us to the risk of reinventing existing concepts or, worst, cryptomnesia, when an individual claims another's idea as his or her own with no recollection of having been exposed to the idea before (Gingerich & Sullivan, 2013). One way of addressing these issues is to revisit scholarly traditions and use them both to avoid that novel contributions are built on collective amnesia and as a source of categories that nurture the epistemic readiness of contemporary researchers (Zerubavel, 2020).

In this section (which reflects some themes in Erickson's piece below), I make a case that the current discussion on the organizational and societal implications of technological change and the changing nature of control over people and their work should be conducted cognizant that the topic has been debated for almost 75 years. These topics were at the heart of the work program on socio-technical systems of the London-based Tavistock Institute of Human Relations, one of the sites where modern organization theory has its roots.

The Institute, founded in 1947, left an extensive legacy of concepts and methods that evolved over the years. Because offering a complete overview of the principles and ideas developed by the Tavistock goes beyond the scope of this short piece—those interested are referred to existing summaries (Pasmore, Francis and Hadelman 1982; Trist and Murray, 1990;1993; 1997; Van Eijnatten, 1993), I will limit to a few remarks on how the early work of the Tavistock researchers (the work of the "classic period" from 1951 to 1968: Van Eijnatten, 1993) can inform the modern study of work.

The unit of analysis: Work as a socio-technical task system

One of the distinctive contributions of the Tavistock tradition was to introduce a novel unit of analysis for the study of work: the task system and its environment. Like Marx, who saw work as a productive form-giving activity (Sayers, 2007), the Tavistock scholars conceived work as a transformation process achieved through a series of tasks. However, tasks alone and in isolation are insufficient to understand work, as tasks only gain meaning from their goal. The basic unit of analysis is thus a socio-technical task system, a holistic unit that comprises the set of activities "required to complete the process of transforming an intake into an output plus the human and physical resources required to perform the activities" (Miller and Rice, 1967, p. 6). Task systems, also called primary work systems (Emery, 1981), are "units" in that they have a recognized goal "which unifies people and their activities" and identified boundaries (Trist, 1981, p. 11). They depend on inputs from other systems (the model here is living organisms) that constitute their environment. Task systems thus exist in inter-dependence relations, which must always be included in the analysis of work and its management. The adjective "socio-technical" emphasizes that to achieve their functional goals, task systems require coupling tecno-material and socio-affective dynamics (the sentience system pertaining to the relationship between humans).

Hence Tavistock's idea that designing work aims at optimizing the coupling of dissimilar elements (Trist, 1966). Ignoring the socio-affective aspect may result in work systems that do not satisfy the psychological needs of the members, which may lead to low morale, alienation, and, in extreme cases, conscious and unconscious interference with the main working task. However, focusing only on the social and psychological aspects alone is also undesirable, as material and technical arrangements directly and indirectly affect workers' social and psychological conditions. An excessive focus on unconscious forces (Jaques, 1951) or social meaning-making (and in the symbolic interaction tradition) may lead to study work tasks without references to the economic requirements that make the unit viable—another option that Tavistock scholars considered incongruous.

The idea of a socio-technical task system negates the idea of "the one best way," as components can be effectively coupled in different combinations to achieve the same goal. The optimal relations between components can be obtained either through careful design or by establishing learning mechanisms that allow practitioners to change what does not work (the idea of action research). The presence of clear boundaries around a task system (a working group, department, or project), in turn, suggests that the unit will have an internal "environment" (with its specific psychological and social dynamics). Clear boundaries also

allow us to study in detail the interdependencies, correlations, misalignments, and contradictions within *and* among units.

The unit of observation: what to look for when studying work?

Besides introducing and popularizing socio-technical systems to analyze, theorize and redesign work, the Tavistock researcher also introduced specific units of observation and developed procedures to support analysts when studying work and comparing primary work systems. These heuristic tools and procedures became especially important to enable practitioners to analyze their work, thus giving them equal status in the participative search process. Several have become customary in the analysis of work systems (input, output, flow of resources, tools, etc. See Van Eijnatten, 1993). Others are distinctive to the socio-technical approach, for example, the concepts of variance (Engelstad, 1970), interdependence (Trist, 1966), and primary task (Miller and Rice, 1967).

The focus on variance derived from the clinical background of early Tavistock's researchers. The intuition is that by investigating variances as symptoms, the analysts could identify the underlying contradictions between technical and social dimensions—and treat them. A notable example is Hill's (1973) ten-step model to study task systems building on variance analysis. Consideration for the interdependence between task systems and the interface between them was another critical heuristic device. The elements that needed to be worked together to achieve the task goal, e.g., money, materials, tools, and workers (Trist, 1966), also established relationships and exchanges with other systems, which were members of the task systems considered as composing their environment. This exchange regime created interdependencies between socio-technical systems and the necessity for boundary regulation processes identified as a central task for managing any form of organized work, the other being monitoring the intra-system processes (Miller and Rice, 1967, p. 8).

Finally, the belief in the differentiated nature of the socio-technical system led Tavistock researchers from the classic period to suspend their judgment on the existence of a single, shared primary goal, which led analysts to be attentive to tensions, conflicts and potential contradictions: "There might be a conflict between the way in which a constituent system defines its primary task" (Miller and Rice, 1967, p. 27).

The idea of a primary task was thus considered a heuristic device to study the coupling of different subcomponents (and the alignment of the system with its supra system). According to this perspective, a deep understanding of the objectives of different stakeholders, process knowledge, and the different judgmental criteria used to evaluate the

results are essential to make sense of the range of responses encountered by the analysis – hence the need to develop a deep knowledge of the work on the coalface discussed above.

As mentioned above, different concepts were used to analyze the "sentient system" (Miller and Rice, 1967). Many of these concepts were derived from the psychoanalytic tradition in which the Tavistock was rooted. The basic idea was that the individual cannot exist in isolation but only in relation to other humans: "The individual is a creature of a group…he uses [others with whom he interacts and they with him] to express views, take action and play roles (Miller and Rice, 1967, p.17). The Tavistock researchers distinguished between two types of sociality generated by work tasks: relationships derived from the division of labor necessary to complete the task and affective relationships typical of a sentience group, the form of sociality that demands and receives loyalty from its member, satisfies the need for belonging and provides members with some defense against anxiety (Miller and Rice, 1967). In a workplace, members have to occupy at least two roles: one in a task system and one in a sentience group (people belong to several sentience systems, such as the family, friendship circles, and communities).

Analyzing work thus requires investigating the effectiveness of these two forms of sociality in terms of capacity to satisfy primary psychological needs, provide meaning and a sense of belonging, and defend from anxiety. It also requires studying their mutual congruence and their overall alignment with the work task. Examples include situations in which the sentience group is unable to provide sufficient protection from anxiety derived from the work tasks (e.g., the study by Menzies, 1960 about nursing work); cases in which the task system produces negative forces that interfere with the task (Trist and Bamforth, 1951); situations in which the psychological dynamics of the sentience group actively interfere with the achievement of the task (Bion, 1961); and the case of professionals who draw their psychological support from professional association while also belonging to a specific task system and organization (Miller and Rice, 1967).

Reengaging with the Tavistock's early work helps us to see that much of the current debate on how technologies affect work is not new. The Tavistock tradition established long ago that simplifying narratives—like the algorithmic drama discussed by Corpooral in this curated discussion—fails to capture the complex dynamic accompanying any technology's introduction. The same tradition also reminds us of the importance of studying task systems ecologically, attending to the interdependencies and connections established by the different components of the system with other types of work and institutional arrangements (a lesson that resonates with the work of Hughes, as noted in the introduction). This includes "money",

an aspect often lacking in many current work and occupational dynamics analysis. It also reminds us of the importance of conceiving work as something that spans several spheres of being, including emotions and affect. Studying work and its changes without considering things such as hope, fear, aspiration, anxiety, ambition, pride, etc., might make it impossible to understand how control is exercised in modern workplaces. Reconnecting with the Tavistock's legacy also reminds us that work changes, and so should the conceptual tools and units of analysis to study it. For example, the Tavistock's idea of a bounded system is probably unsuitable to capture increasingly distributed, fluid, rhizomatic and uncertain ways of working. The same can be said of the dualism between technical and social elements that we learned to see as entangled (Scott and Orlikowski, 2014). The novelty, therefore is not in rehashing old debates, but rather in developing new concepts that help us make sense of what is effectively new (see the contributions by Cohen and Bechky and O'Mahony).

Why and how to study work?

All Tavistock researchers were interventionists. Unlike many contemporary academics who see themselves as observers or interpreters, these women and men (mostly men, with some notable exceptions) saw themselves as agents of change whose aim was to improve the lives of those involved in the activities they were studying. This orientation is critical to understanding not only their main principles and ideas (the search for a new non-Taylorist paradigm, a programmatic attention to psychological well-being at work, the promotion of autonomy and self-determination, and the belief in democracy as a means and end) but also how they studied work.

First, work was always studied in the context of change. Several of the original concepts in the socio-technical tradition were derived through observing the results of "natural" occurring or deliberate change efforts (which were conceptualized as field experiments: Emery, 1989). For example, the very idea of a socio-technical system was derived inductively from the observation that intervening on only the human side of work (personnel policies, labor relations) did not produce the expected results. Similarly, the idea of autonomous self-managed working groups was abductively derived by studying some outlier instances of worker-led innovation in UK mines. The difference between the traditional inductive and abductive approaches was that the "working hypotheses" developed through the analysis were not tested by examining further cases (like in traditional abduction: Timmermans and Tavory, 2012), but rather corroborated through new interventions, thus giving rise to the traditional cycle of action research: study, theorize, intervene, evaluate the intervention's results, change the theory.

Second, work processes and procedures were studied in depth. If you want to change work conditions by changing how the work is carried out, you need to understand the work in painstaking detail. Many of the Tavistock studies (e.g., the classic Trist and Bamforth, 1951) were conducted at a level of granularity comparable to that used by the managers involved in planning daily operations. Suppose you want to offer alternative ways of working. In that case, you need to develop a strong interactional expertise (the ability to converse expertly about a practical skill or expertise: Collins, 2004) and speak the language of those doing and managing the work. Although many early Tavistock researchers were trained in anthropology, they used participant observation only occasionally. Instead, they developed two distinctive practices: enrolling practitioners as co-researchers and crafting long, detailed work notes. Enrolling practitioners as co-researchers (one of the key principles of action research) helped with access and allowed them to understand the workplace they were studying in depth. These co-researchers acted as boundary spanners and helped to reduce the social distance (and related mistrust) between academics, the organization, and the broader social systems. Work notes were derived from their clinical background -- many of the early Tavistock scholars were trained clinical psychologists and often practicing psychoanalysts. These notes, taken painstakingly after events, meetings, and workshops, reflected the idea that the self was an instrument of research. They registered facts, opinions, feelings, and moods, thus allowing us to explore unconscious dynamics operating within the social" sentient" system and providing access to the unconscious dynamic of the client system and the project.

In summary, the work of the early Tavistock reminds us of the necessity of seeking close encounters with people's activity if we are to understand how technologies alter work. The alternatives are abstract or stylized renditions that might produce partial understanding, miss the fine points, and only help to feed the latest buzzword. However, this work also encourages us to rethink what getting close to everyday work might mean in an age where most work is conducted online. The lesson from these pioneers who had to invent their own conceptual and methodological tools of the trade is that studying work requires creating heuristic devices that suit its evolving nature (see the suggestion made by Bechky and O'Mahony later in this curated discussion).

Building on CSCW's Legacy for Today's Study of Work

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As the compiled papers in this special issue all point to, we are at an interesting inflection point regarding our understanding of work and its dynamic relationship to technology. As we peer into the future and speculate on the way that the roles (e.g., Acemoglu & Restrepo, 2019), skill (e.g., Vallor, 2015), and agency (e.g, Pignot, 2021) of workers is rapidly changing, it might be a good moment to reflect on some of the lessons learned by the field of *computer-supported cooperative work (CSCW)*—a research area that is in many ways empirically adjacent to management studies yet too oft overlooked. As Bechky and O'Mahony implore elsewhere in this curated discussion, scholars have trod these empirical streets before, even as we recognize the potentially sharp distinction in today's landscape wrought by the adoption and implementation of intelligent technologies.

Management scholars may be surprised to learn that CSCW as a field has always had work at its center. The name was coined by computer scientists Irene Greif (IBM) and Paul Cashman (Digital Equipment Corporation) in 1984 as "a shorthand way of referring to a set of concerns about supporting multiple individuals working together with computer systems" (Bannon & Schmidt, 1989, p. 358). CSCW distinguished itself from its sister community, human-computer interaction (HCI), by attempting to understand not merely how human-centered technology could or should be designed, but, quite precisely, how technology could or should be designed *to best support work* (Greif, 1988, 2019). It recognized at the outset that work was at once shaped by technology, but also that it was possible to shape technologies that were resonant with it.

To meet this goal, early CSCW researchers went to where work was happening to observe the interplay among humans and technologies in intimate detail. Seminal studies in the field showcased how technologies were utilized by conductors in the London Underground Control Room (Heath & Luff, 1992), leveraged by share traders in a City of London securities house (Heath et al., 1994), applied to the tasks of government procurement (Bowers, 1994) and product design (Bellotti & Bly, 1996), and used to facilitate distributed scientific work (Star & Ruhleder, 1994). These detailed investigations became the basis for mapping work onto the design of work systems, which spurred several decades of interesting

designs to support distributed collaboration including video portholes (Dourish & Bellotti, 1992), animated proxy systems (Erickson & Kellogg, 2003), and shared writing tools (Chang et al., 1995) to more recent research on the invisible labor involved in acquiring and managing data (Bossen et al., 2016; Fischer et al., 2017). Today, many scholars in CSCW have moved away from a core focus on work; as the digital world has expanded, so too have the opportunities to study collective behavior of all sorts that is mediated by technology. Despite this evolution, there are several key insights that CSCW, especially its early pioneers, can contribute to today's investigations of work by management scholars, especially as it stands in the shadows of artificial intelligence.

First, CSCW research reminds us how much work is a product of the interaction between design and situated practice. With its foundational emphasis on enabling work, CSCW scholarship highlighted that whatever it is that we call 'work' is *always* highly situated, contextualized, and multifaceted. They showed us that work of all kinds is complex not only because of its task interdependencies, but because of how it splays onto stratified, interwoven layers comprising design affordances, social dynamics, and individual capabilities and motivations. Management scholarship often echoes this same point, but sometimes has a habit of reifying the divide between work and technology, rendering the latter as a subservient tool in service of some more important set of strategic activities. Instead, CSCW reminds us that work and technology are likely more profitably understood as a co-constitutive unit. This is a lesson especially apropos in the current AI moment.

CSCW can also remind us not to make technology a monolith (see the contribution by Corporaal below). In its early days of studying collaboration technology, this field quickly realized the difference between tools that supported synchronous versus asynchronous collaboration, that used images versus text, that provided places for formal engagement versus those that understood the power of informal social translucence. We have an opportunity to understand the various permutations of artificial intelligence emerging today in a similar vein, just as our foremothers and forefathers distinguished CT scanners from Lotus Notes. When we investigate how AI is shaping the future of work, are we talking about computer vision or large language models? Both would be considered forms of artificial intelligence, but their current and future impacts on work and workers are likely to be very different. Our call in the coming decade, inspired by these scions of the past, should be to embrace the chance to inform ourselves about how, where, why, and in what particular guise AI and its sibling technologies are being embraced as an intimate co-conspirators and

repelled as a furtive enemies. This may require a methodological shift, however, that redirects both when and how we collect data as well as where we look for it.

Finally, CSCW reminds us, perhaps most importantly, that some work is more visible and valued than others (see contribution by Karanukaran in this curated piece). Feminist CSCW scholars, in particular, showed how invisible work, at once essential and unvalued, is often left to those with less power in organizations (Forsythe, 1999; Nardi & Engeström, 1999; Star & Strauss, 1999; Suchman, 1993). The value of attending to the performative rather than privileging the ostensive (Latour, 1984) led CSCW scholars to surface the importance of articulation work in virtual collaboration (Grinter, 1996; Schmidt, 1994; Schmidt & Bannon, 1992), the reasons why sociotechnical 'solutions' often fail in real organizational contexts (Grudin, 1988; Heath & Luff, 1991; Markus & Connolly, 1990), the role of information in work (Berndtsson & Normark, 1999; Dourish & Bellotti, 1992; Kusunoki & Sarcevic, 2015; Østerlund, 2008; Sellen & Harper, 2003), and the social dynamics of tacit knowledge (Erickson & Kellogg, 2000; Heath & Luff, 1992). In an era of increasing automation, we can look to CSCW as a model for how to interrogate the intersections of work and technology that lie beyond the surface level. Today and increasingly into the future, it is incumbent on our scholarship to highlight the effects of intelligent automation not only on worker agency and occupational jurisdiction, but on the no less mundane topic of everyday work practice. CSCW's early emphasis on situated work can inspire us all to become better equipped to create, legitimate, or demand future sociotechnical systems that support human dignity and agency. In tandem, perhaps this brief essay will encourage us as scholars of work to re-embrace the generative complexities laden "computer-supported" work, especially in this current moment.

Taking (the Study of) Work to Tasks

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While analyzing data on hiring in a startup called Sage[1] (e.g., Cohen & Mahabadi, 2021), I noticed a set of tasks—around data collection and entry—moved across five jobs. In under three years, these tasks travelled to the jobs of interns, developers, analysts, temporary workers, and data entry operators triggered by the failure of AI, a new operational models, shifts in organizational strategy, individual preferences, and other organizational and individual factors. This task mobility had implications for employees and for Sage. When data collection moved from analysts to data entry operators, analysts could take on the tasks of developing products, working with clients, writing reports, and analyzing data. With these changes, analysts went from frustrated to motivated by their jobs. Their career prospects shifted (see Dokko's piece in this Curated for a discussion of the relationship between work and careers). This movement altered who should be hired for which positions, how that hiring was done, and how those hired should be rewarded. Thus tracing the movement of these seemingly mundane tasks opened a window onto the entire organization and the work within it that might not have been left closed by analysis at other levels.

Existing studies of tasks—the minute pieces of work bundled together under administrative job titles and into jobs—accounted for parts of what I observed. Research going back as far as Smith's study of the division of the 18 tasks of pin-making (Smith, 1937 [1776]) and ranging from micro to macro provides predictions about how the characteristics and structure of these data collection tasks and the job configurations they were part of might influence individual and organizational outcomes. Tasks and task configurations influence individual attitudes and behaviors: e.g., job satisfaction and meaning (Hackman & Oldham, 1975; Morgeson & Humphrey, 2006), prosocial behavior and proactivity (Grant & Parker, 2009). They also influence organizational structures and processes: e.g., monetary rewards (Wilmers, 2020), the ability of managers to control workers (Braverman, 1974), and even whether jobs live or die (Hasan, Ferguson, & Koning, 2015; Miner, 1991; Stewman, 1988). What I could not fully understand was when and why tasks would move and how that

[1] Sage is a pseudonym.

reverberated through the system of jobs, organizations, and occupations in which they were embedded. The lens of task research has focused on describing the characteristics and structure of tasks and on the effects of those tasks on jobs but not on the processes that bring about change in these structures and the reverberations of these changes.

That the movement of data collection tasks reverberated throughout Sage was not in itself surprising. Research has provided evidence that tasks are part of a tightly woven relational network (Cohen, 2016; Grant & Parker, 2009) and as I would expect in any such network change leads to more change. However, a vast majority of this research shows how the broader social and material context of jobs and tasks mediates, moderates and directly shapes the effects of tasks on these many outcomes (Grant & Parker, 2009) and it often does this by examining tasks and their relational networks in the cross-section. Because the focus has been on outcomes associated with tasks in the cross-section, this research does not foreshadow the extent of reverberations. Some reverberations will be simple and intended byproducts of removing or adding tasks: the character of a job and associated skills will shift with tasks. Other reverberations of task movement will not be direct byproducts. They involve decisions and unanticipated consequences as adding one task may displace others; as removing a task can create a task vacancy and subsequent task movements; and as surrounding human resource systems and structures are altered to create better alignment across organizational systems. The ability to see these requires moving the lens from outcomes in the cross-section to that of process over time.

A growing set of scholars has provided related insights into the movement of tasks—though almost always as they consider other structures and processes. For instance, scholars have considered how individuals might shape the set of tasks in their jobs through job crafting (Berg, Wrzesniewski, & Dutton, 2010; Wrzesniewski & Dutton, 2001) or how tasks might be configured around individuals through idiosyncratic jobs and opportunistic hires (Levesque, 2005; Miner, 1987). In my own work on job assembly, I have shown forces at the job, organizational, and environmental levels that might lead to changes in task configurations (Cohen, 2013, 2016; Cohen & Mahabadi, 2021). Still others have shown how incentives can be used to shape what tasks an incumbent will perform (Chown, 2020), how control over some tasks can protect task territory against incursion (Huising, 2015), or how problems and surprises might create change in task configurations (Bechky & Okhuysen, 2011; Pentland, 1992). The patterns in these and related studies support my contention that understanding how tasks move across jobs, organizations, and occupations, and how the

initial changes reverberate in this relational system requires a shift in how organizational scholars think about and study work. They need to take their study of work to tasks.

Perhaps the biggest impediment to bringing the study of work to tasks is a methodological one. Studying tasks presents challenges and studying change in them even more. Tasks don't talk. Data collection and entry could not tell me where they were going, where they had been, why they were moving, and what that meant to them or to others. Further, because tasks are deeply embedded in relational networks, they cannot be studied in isolation. My understanding of changes at Sage is based on over 100 interviews with 51 people in thirteen jobs and over 100 hours of observation. Further, studying change requires studying over time. A snapshot at Sage would not have shown that data collection and entry were in motion for three years. The study of tasks lends itself to relational ethnography but this is not a technique that is in frequent use in management research (Anthony, Bechky, & Fayard, 2023). Quantitative methods can provide additional insight on larger patterns of task movement but requires detailed data that is hard to find. For instance, the technologies changing work may also provide new forms of and better data and analysis at the task level (DeWitt, 2019). Detailed organizational or occupational administrative data may also allow new insights (Chown, 2020). Quantitative and qualitative methods combined may be a key to fully understanding tasks. Yet, it is concerning that scholars of tasks using different methodologies—quantitative, qualitative, experimental—seem to only rarely speak to each other. There are few studies where scholars triangulate across do the even more difficult combine quantitative and qualitative methods to study tasks, but when they do, they provide insights that go far beyond what we might learn without this sort of methodological triangulation otherwise (Ranganathan, 2023).

Further, there seems to be little cross-disciplinary conversation that might help to truly take the study of work to tasks. For instance, I have cited research coming from many distinct disciplines and perspectives; yet, there has been little integration across these domains of knowledge. Tasks offer an opportunity for cross-fertilization as, for instance, for scholars of organizational theory speak to scholars of organizational behavior and for as economists talk to sociologists and psychologists.

A final challenge to taking the study of work to tasks is that studying tasks is far from glamourous. Tasks are by definition minute, and it is not always easy to foresee the bigger stories they can tell. It may be more appealing to study broader constructs like roles and organizational design or to directly addressing the many grand challenges facing us. Yet, while minute, tasks are not just minutia. They are the organizational scaffolding from which

larger societal issues can be addressed. They are how work gets done and addressing work is one way to addressing grand challenges is work. While I've presented many reasons that studying tasks is hard work, I've also shown that doing so would advance our understanding of work and organizations.

Others in this forum rightly suggest that looking at tasks alone may not be enough to allow us to understand fully work—that we require a more integrated perspective. Elsewhere in this curated discussion, Nicolini argues that "tasks alone and in isolation are insufficient to understand work, as tasks only gain meaning from their goal." Similarly, Erickson points to the value of taking an integrated-systems perspective in examining computer-supported cooperative *work*. I am simply arguing that any systems-based perspective that leaves out consideration of tasks is not truly a systems approach. Detailed examination at the task level, in particular of how tasks travel and how this task mobility reverberates throughout systems of work, is important to predicting the effects of any type of disruption including those related to AI and other advanced digital technologies (see Bechky and O'Mahony as well as Corporaal in this curated piece) that have become so central to the study of work, jobs, occupations (see Karunakuran) or careers (see Dokko). Attending to the task level is especially important in the context of the many predictions that the pace of change in work will accelerate in coming years as smart digital technologies become smarter and as we grapple with transformations in the environment, and the economic, social, and political landscape.

Though tasks are silent, they point to answers to many of the challenges facing scholars of work and for that matter, the world.

A View of Work from the Perspective of Careers

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The study of work is foundational because it is grounded in actual activities that real people do in specific contexts. However, people typically do many kinds of work in many different contexts over the course of a career. A careers perspective put emphasis on the person and their chain of work experiences over time and over job moves. It foregrounds the moves themselves and the path or pattern of movement. Grounding a careers perspective in the work that people do gives rise to fruitful research directions that enable better understanding of causes and consequences of careers.

As an illustration of how the study of work and work practices inform the study of careers, I elaborate briefly on two areas of research in careers: career transitions, and implications of career paths and patterns.

Career transitions and the portability of experience

The path and shape of a career virtually always involves transitions (Arthur & Rousseau, 1996; Louis, 1980). Few, if any, people work in a single occupation or type of work, in a single context, for their whole careers. Key to the juxtaposition of work and careers is the idea that people carry their prior experiences and the work they have done with them as they move into new jobs. Research on job mobility has investigated the portability of experience as people change jobs, and by extension, throughout their careers (see Dokko & Jiang, 2017 for a review). These studies suggest that the goals and organization of work are conditioned by career history. For example, executives carry models of how work should be organized and for what purpose from their prior experiences (Beckman & Burton, 2008; Boeker, 1997; Phillips, 2005).

However, an accumulating body of work also suggests that the portability of experience is imperfect (Raffiee & Byun, 2020). Performance can fail to translate into a new setting, even as occupational tasks remain constant (e.g., Groysberg, Lee, & Nanda, 2008; Huckman & Pisano, 2006); movers can misapply their experience in new situations (Dokko, Wilk, & Rothbard, 2009). As work is situated in a particular context, paying close attention to the work that people do and how they derive meaning from their work suggests ways in which experience may not translate across jobs. For example, journalists faced with the

destabilization of their occupation were able to transfer elements of their work to new occupations, if the meaning they associated with their work was flexible, as opposed to fixed (Jiang & Wrzesniewski, 2023). For organizations, socialization processes focus on the transition into an organization (Schein, 1971), and an implication of hiring experienced workers might be the need for socialization practices that highlight differences between how work is conducted in context, or that facilitate meaning-making or identity work that builds on prior experience.

Social and organizational implications of individuals' career paths

Since early days in organization theory, career paths and patterns have been recognized as important to broader aspects of society, including social integration and institutions (Hughes, 1958; Wilensky, 1961). Career paths and patterns, because they encode societal norms, resources, and interpretive schemes, serve as scripts that link individuals to broader institutions (Barley, 1989). Career scripts transmit institutional imperatives to the level of individual action and interaction (e.g., Dany, Louvel, & Valette, 2011), but they also provide a vehicle through which individuals' career choices and paths can consolidate a community around new areas of work and lead to the emergence of new scripts and even new occupations

Moreover, the study of work has been particularly useful in understanding how modern careers progress, as employment relationships become less stable and organizational work is structured in new ways (Barley, Bechky, & Milliken, 2017; Sullivan, 1999). As a result, questions about how people build careers outside of and across organizations have become important (Ashford, Caza, & Reid, 2018; Bidwell & Keller, 2014; Haveman & Cohen, 1994). The concept of stretchwork (O'Mahony & Bechky, 2006) has been seminal for careers scholars because it focuses on the work that people do to build "new economy" careers. Rather than relying on organizational mentors or training, workers find opportunities to build skills and progress in their careers within a gig or contract structure by demonstrating general competence to get opportunities to learn and choosing projects that enable them to learn new skills. These findings raise new questions about how stretchwork can be used to enable workers to enter new occupations, or why workers become specialists or generalists, or myriad other questions of interest to careers scholars.

Conclusion

Though I have written primarily about how understanding work enriches the study of careers, accounting for careers has also been generative for the study of work. Examining the career histories of workers can lead to better understanding of how work is experienced, as it

did when Bourmault and Anteby (2020) found that managers' career histories conditioned how they experienced managerial work and perceived their new level of responsibility. Collaboration and coordination across occupational groups (e.g., Bechky & Chung, 2018; DiBenigno & Kellogg, 2014) could be conditioned by the career histories of workers. People who move across occupational boundaries in their careers appear to be better equipped to communicate with diverse co-workers than people whose careers are more limited in scope (Crossland, Zyung, Hiller, & Hambrick, 2014; Honoré, 2020). Career paths and transitions may look different or have different meanings in different occupational communities, as Reilly (2017) found in a study stand-up comedians, for whom career progress means accruing layers of resources and constituencies, rather than moving from one discrete status to another. Yet, the construction of careers is centrally important to people in all occupations and a worthy subject of study.

New technologies that affect work also affect careers. As several of the essays in this curated discussion indicate, the imposition of technologies changes what work is done (see Corporaal) and how work is valued (see Erickson), which could affect the jobs that people pursue and how their careers progress. Though the effects of technologies and technological change on work are hardly new (see Bechky and O'Mahony, and Nicolini), technological change can have enormous effects on careers. For example, de-skilling through automation and algorithmic replacement not only changes the tasks that workers do, it also changes which workers can be selected into jobs and what workers learn on the job, in turn shaping what they are able to do, and how they are prepared for future career opportunities.

Work and careers are inextricably tied together. The work people do and how they experience it is connected to their careers, past and future. Scholars of work and scholars of careers have much to say to one another, and thinking about careers in terms of work and work in terms of careers continues to offer exciting possibilities for research.

Moving Beyond the Algorithmic Drama:
Platforms, Algorithms, and the Future of Work

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Current scholarly debates on technology and the future of work frequently focus on the role of algorithms in platform-mediated work. A central concept explored in this research is 'algorithmic management', highlighting how algorithmic technologies are profoundly transforming work and with substantial implications for workers (see Kellogg, Valentine, & Christin, 2020 for a review). Studies in management (e.g., Bellesia, Mattarelli, & Bertolotti, 2023; Bucher, Schou & Waldkirch, 2021; Cameron, 2022; Cram et al., 2022; Meijerink & Bondarouk, 2023; Möhlmann et al., 2021; Pignot, 2023) and related fields such as economic sociology (e.g., Galiere, 202; Huang, 2022; Mendonca & Kougiannou, 2023; Rosenblatt & Stark, 2016; Wood et al., 2019) and culture studies (e.g., Bishop, 2019; Duffy, 2017; Mears, 2022) examine the role of algorithms in shaping work and power closely. Digital platforms, and especially labor platforms, have proven fruitful empirical contexts where the ways that algorithms exert control over how many of us work are already visibly observable—particularly for those of us doing so-called 'gig' work. *But what do we mean when we use the term 'algorithmic' to refer to the nature of control through algorithmic technology? And what do we miss out on by focusing on algorithms as the sole force shaping modern-day work?*

In this essay, I will briefly explore these questions. Regarding the first, Kellogg and colleagues (2020), citing Gillespie (2014, p. 167), define algorithmic technologies as "computer-programmed procedures that transform input data into desired outputs in ways that tend to be more encompassing, instantaneous, interactive, and opaque than previous technological systems." In the context of work, employers use them to direct, evaluate, and discipline workers. Scholars agree that the use of these technologies exerts an excessive amount of control over workers (e.g., Rahman, 2021; Rosenblat, 2018; Vallas & Schor, 2020; Shapiro, 2018; Wood et al., 2019) as compared to traditional forms of control prevalent in the past (Duggan et al., 2023; Kellogg et al., 2020). Yet, as Bechky and O'Mahony note in their contribution to this curated discussion, the scholarly debate on how organizations deploy technology to increase their arc of control still offers questions for further investigation.

Regarding the second question, I argue together with others, that the predominant focus on algorithmic management is too narrow. While insightful and important, it runs the risk of essentializing the 'algorithmic drama' (Ziewitz, 2016) and introducing a new wave of technological determinism that overestimates the agency of algorithms as autonomous decision-makers. As Van Doorn (2022, p. 4) says, "many of the elements associated with 'algorithmic surveillance'. . . are actually not related directly to algorithms at all." In addition, a too-narrow focus on algorithmic technologies risks losing sight of the particular contexts in which work is situated (see Nicolini's contribution in this curated discussion) and leaves other forces under-examined (see also Bailey and Barley, 2020). We need to examine the distinct political economies and industrial relations associated with 'platformization' (Helmond, 2015) and shaping the organization of work in the digital economy.

To illustrate, much recent discussions about the role of algorithms follow the script of what Ziewitz (2016) refers to as the algorithmic drama and which unfolds in two acts: Act one introduces algorithms as powerful actors across various domains. Act two then delves into the difficulties of explaining how algorithms exercise their power whereby their opacity is interpreted as another sign of their influence and power. As Ziewitz remarks, this drama is both intuitive and compelling: It introduces the algorithm as a novel actor within established systems, portrays it as the sole decision-maker, to then highlight a range of problems and concerns. In research on platform-mediated work, while recognizing that control is exercised through socio-material assemblages in which algorithms are only one actor, scholarly work still uses language suggesting algorithms act as autonomous decision-makers. For instance, Newlands (2021) describes how in algorithmic surveillance, "the observer and decision-maker is a non-human agent" (p. 721). Similarly, Cameron and Rahman (2022) explain how algorithms utilize customer ratings "to reward and discipline workers" (p. 41), "make consequential decisions about workers' future opportunities" (p. 51), and have a "unilateral ability to exclude workers" from the platform (p. 52).

What is problematic is that such portrayals of algorithms as autonomous decision-makers —or even managers—perpetuate appealing myths like the algorithmic drama (Ziewitz, 2016). They presume cause-effect relations that overestimate the agency of algorithms while rendering other forces shaping work invisible. Algorithms are merely computational procedures that provide instructions for solving specific problems or for accomplishing certain tasks. They are a means to an end, and so scholarly work should not overlook those (human or nonhuman actors) who design and deploy them, monitor their performance, and incorporate them in their situated practices, as well as the value choices

enacted in this process. As Introna (2016, p. 27) writes, the operation of algorithms "is always enacted in the flow of a relational socio-material whole, which is irreducible to any of the assumed actors. Thus, we should be careful not to imagine them to be powerful or dangerous as such. We always need to understand them in their embeddedness in the socio-material assemblages of everyday practices."

Moreover, algorithmic technologies are just one means through which platform owners and users enact their power, ideologies, and value choices. Hence, to fully grasp the implications of the platformization of work necessitates a more holistic perspective which, in turn, raises new questions. For example, what are the political economies and industrial relations associated with platformization, and which shape the organization of work for many of us today? And, acknowledging the dynamic and evolving nature of platformized markets as unsettled spaces, how are platforms and their ecosystems actively shaping and creating values and institutions rather than passively reflecting them?

To answer these questions, it is necessary not only to study the full range of workers on the supply side of platformized markets (e.g., Curchod et al., 2019; Narayan, 2023) and their career backgrounds (see Dokko's contribution in this curated discussion), but also to expand the current research focus and uncover what drives those on the demand side to embrace the work models propagated by platforms and their implications for managing and organizing (e.g., Altman et al., 2023; Corporaal & Lehdonvirta, 2017; Corporaal & Ozcan, 2023; Rahman & Valentine, 2021; Schildt, 2017). Additionally, Erickson in this curated discussion reminds us that technologies are never neutral and as scholars we thus have a responsibility to create awareness of the values and forces shaping their design. Therefore, for scholars of technology and work it is crucial to investigate the people and work involved in the design, operation, and governance of platform markets (e.g., Bailey & Barley, 2020; Corporaal & Lehdonvirta, 2023; Jarrahi et al., 2020; Kyprianou, 2018). Such a multifaceted approach can hopefully allow management scholarship to move beyond the algorithmic drama and contribute to a richer and more nuanced understanding of transformations in work unfolding in the digital economy.

Persistence of Occupational Recognition Gaps:
Examining the Mismatch between Occupational Classification Systems and the Expertise Needed to Accomplish Occupational Work

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Members of several occupational groups believe that what they actually do as a part of their everyday work is widely misunderstood by outsiders, including regulators, clients, and the general public. "No one really gets what we do," "The public doesn't understand," and "they [outsiders] have no idea what we are all about" are some of the common complaints we hear from individuals across a wide variety of occupations—from nurses and teachers to architects, lawyers, and police officers (Patil, 2019; Vough et al., 2013). Building on Lamont (2018), I refer to the discrepancy between the actual work performed by occupational members and how they are generally perceived by outsiders as *occupational recognition gaps.*

Prior research has examined the causes and consequences of occupational recognition gaps, focusing on issues around job satisfaction and emotional well-being (e.g., Cech et al., 2011; Chan and Hedden, 2023; DiBenigno, 2022; Karunakaran, Orlikowski, and Scott, 2022). An important implication from this line of research is the role that a lack of knowledge on the part of outsiders about the nature and complexity of occupational work play in shaping the *emergence* of such recognition gaps. Therefore, creating and disseminating more knowledge about the actual work performed by occupational members to outsiders could potentially help reduce such discrepancies. However, despite such efforts (e.g., National Education Association's public awareness campaign on teachers, American Nurses Association's awareness campaign on nurses and their work), why do these occupational recognition gaps *persist* over time?

In this essay, I argue that beyond cognitive misperceptions and a lack of knowledge by outsiders, classification systems—both official/institutional classification by government bureaucracies as well as informal/cultural classification by clients and the general public—play a central role in the persistence and entrenchment of occupational recognition gaps, shaping what types of tasks, skills, and expertise are recognized and valued, and which ones are stigmatized and devalued (Karunakaran, 2022b; Lamont, 2023; see also Bowker and Star,

2000). The emphasis here is less on cognitive misperceptions and a lack of knowledge by outsiders, and more on entrenched disparities in recognition, i.e., a lack of societal acknowledgment and appreciation for certain types of tasks, skills and expertise that are needed to accomplish occupational work (Taylor, 1992). Such entrenched disparities in recognition, in turn, contribute to the ongoing stigmatization and devaluation of some occupational groups over others. Focusing on the structure and complexity of everyday work (see Erickson and Nicolini contributions in this curated discussion), in conjunction with the social fabric of the workplace where occupational tasks, skills, and expertise are enacted in practice (see Cohen and Bechky and O'Mahony in this curated piece), will help us revisit our classification systems and in so doing, destigmatize and reduce occupational recognition gaps.

To illustrate these arguments, consider the occupation of "911 dispatchers" in the United States. These dispatchers act as the "first point of contact" for members of the public, even before the police officers, firefighters, or EMTs/paramedics. Therefore, they consider themselves as "'*first'* first responders" who "play a greater role during emergencies by gathering information and giving advice that can make the difference between life and death" (APCO, 2016). Currently, 911 dispatchers are responsible for a wide array of tasks, including categorizing 911 calls based on their type and priority level, dispatching those calls to first responders, giving medical instructions remotely for first aid and CPR, monitoring real-time location tracking systems, and more. Each of these tasks requires a varied set of tasks, skills, and expertise. Despite the nature of tasks, skills, and expertise needed to accomplish their everyday work, 911 dispatchers are not considered "first responders," both in the official/institutional classification system as well as in the informal/cultural classification system.

At the official/institutional level, federal government agencies such as the Office of Management and Budget (OMB) and the Bureau of Labor Statistics (BLS) which controls the SOC system, classify 911 dispatchers under the "Office and Administrative Support" occupational category and not under the "Protective Service" occupational category. In response, 911 dispatchers mobilized to create and disseminate knowledge—in the form of multiple articles, books, videos, documentaries, and over 1000 podcasts[2]—about the nature and complexity of their work. The professional association of 911 dispatchers did extensive outreach and lobbying, urging the government agencies to re-classify them from "Office and

[2] https://www.withinthetrenches.net/ https://tinyurl.com/yckhmpjj

Administrative Support" to "Protective Service" occupations to better capture the complex and technical nature of their work. The government agencies however, rejected the need for such re-classification, providing the rationale that "*the work performed is that of a dispatcher, not a first responder*…Most dispatchers are precluded from administering actual care…. [moving] to the Protective Services major group is not appropriate and separating them from the other dispatchers [such as taxicab dispatchers] would be confusing" (Office of Management and Budget, 2017). At the informal/cultural level, other related occupations, such as the police officers, firefighters, and EMTs/paramedics as well as the clients and the general public, devalued the complexity entailed in 911 dispatchers' work (Karunakaran, 2022a, 2024), classifying and equating their skills and expertise as not so different from that of a taxicab dispatcher.

Viewed together, the formal and informal classification systems valued the tasks, skills, and expertise needed to perform certain types of occupational work (e.g., physical presence at the scene of emergency to administer care), while devaluing an alternative set of tasks, skills, and expertise needed to perform a different type of occupational work (e.g., remotely attending and making sense of emergency incidents, coordinating emergencies and administering care at a distance) that nonetheless focused on the same end-goal (i.e., effective emergency response).

Such occupational recognition gaps entrenched by classification systems have important material consequences that exacerbate inequality, including lower wages for the 911 dispatchers (~23% lower yearly salary as compared to protective service occupations), increased turnover rate, lower status and a lack of respect from related occupations and the public. Moreover, 911 dispatchers are denied the same benefits received by protective service professions such as presumptive post-traumatic stress disorder (PTSD) benefits. 911 dispatchers, therefore, suffer high rates of PTSD (Karunakaran, 2018).

In summary, occupational recognition gaps might *emerge* because of cognitive misperceptions and a lack of knowledge by outsiders, but they continue to *persist* due to entrenched disparities in recognition produced by classification systems. These classification systems shape the continued stigmatization and devaluation of certain types of tasks, skills, and expertise needed to accomplish occupational work, producing significant consequences to the well-being and dignity of individual occupational members, including how they are compensated and treated in the workplace, and the opportunities they have for career mobility within and across organizations (see Dokko in this curated piece).

What are the mechanisms and processes that could reduce such occupational recognition gaps? Lamont (2018) suggests that destigmatization i.e., reducing the stigma associated with the work performed by certain occupations, as a crucial step in addressing recognition gaps. Future research on work and occupations could examine the efficacy and limitations of various destigmatization tactics. For instance, one such tactic could involve moving away from inaccurate or idealized descriptions of occupations in the SOC system (DiBenigno, 2022; Karunakaran, 2024) to more careful examinations and documentation of the actual tasks, skills, and expertise needed to accomplish different types of occupational work (Barley and Kunda, 2001; Erickson, 2024). This is an area where management and organizational scholars, with their diverse arsenal of methods and toolkits, are in a unique position to contribute to our collective understanding of the rhetoric and reality of occupational work, and whether it is reflected (or not) in the official/institutional classification systems (Nicolini, 2024). At the cultural level, popular media (e.g., movies and TV shows) plays an important in shaping public perceptions, either challenging or reinforcing the stigma and stereotypes associated with different occupations. Future research could examine how and under what conditions realistic, as opposed to inaccurate, lionized, or caricatured, media representations of occupations, can play a role in reducing recognition gaps and emphasizing the value and dignity entailed in different forms of occupational work.

Parsing Novelty in Technology and Work

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As editors, we often see manuscripts with numerous claims about what is novel with regards to technology and work. Some raise intriguing questions prompted by rich field studies of people engaged in hybrid work, platform work, gig work, and wrestling with (or ignoring) algorithmic driven artificial intelligence. However, most manuscripts overstate their novelty, given the rich history of study of work and technology as exemplified by the Tavistock Insitute, as Davide Nicolini so artfully points out at the beginning of this curated discussion. The on-going dialogue among editors, reviewers and authors suggests that we have collective difficulty pinpointing what is empirically and theoretically novel, which can affect our ability to cumulatively build upon a long tradition of study. Our modest goal in this essay is to help scholars reconsider how we parse the novel from the known by reflecting on two popular conversations that revisit common and existential themes in work and technology.

First, what is novel about distributed, virtual, remote, hybrid and/or gig work (pick your term)? In both sociology and organization studies, there is a long tradition of studying people wherever they work and following their work journeys outside of organizational boundaries. Sociologists from the Chicago School engaged in this tradition when they explored urban life in street corner society (Whyte, 1943): immigrants, gangs, musicians, and even pot smokers. These studies did not unfold within the confines of a single office, but focused on how people did their work, overcoming challenges and drawing on the resources available to accomplish their goals. In organization science, studies of police officers (Van Maanen, 1973), salespeople (Pratt, 2000), Xerox copy repair people (Orr, 1996) scientists (Fayard and Meitu, 2013) and sailors (O'Leary, Orlikowski & Yates, 2002) reveal the work done on behalf of organizations, even when the work itself did not take place *inside* organizations. Some occupations have always been mobile and their work distributed across

organizational boundaries of time and space. The existence of spatially or temporally distant work is therefore not likely to be theoretically interesting on its own.

Second, what is novel about how adopting and using digital technologies changes work and organizations? There is a long history of scholars fascinated with how new technologies inscribe new roles and practices for some jobs but not others. Over 35 years ago, several seminal studies revealed how new technologies create opportunities for restructuring roles and work practices in unpredictable ways. Barley (1986; 1990) showed how CT scanners shifted the roles of radiologists and technicians and altered influence within doctors' social networks. Zuboff's (1988) study of two paper mills described how new technologies could either automate existing work practices and de-skill jobs or informate jobs by providing more information than previously available and creating new forms of expertise. Orlikowski explored how professional service firms grappled with groupware, Lotus Notes and email list servs to structure knowledge work (Tyre & Orlikowski, 1994; Orlikowski & Yates, 1994; Orlikowski, 1996). These studies showed not only how technology structured work, but also how workers in certain occupational groups could bend technologies to their interests.

While these two theoretical domains are well-cultivated and often revisited, they still offer open questions for investigation. One nascent area is organizations' increasing arc of influence or control over people and the work they perform. By leveraging digital technologies, organizations have designed new forms of control that influence work behavior and shape what work can be done, how, by whom and in what sequence (Kellogg, Valentine, & Christin 2020). Some forms of control are contractual or legal and in plain sight. Other forms are less visible, embedded in technologies as diverse as surveillance cameras (Anteby & Chan, 2018), platform rules (Rahman, 2021; Cameron & Rahman, 2022), decision right systems (Dahlander & O'Mahony, 2011), social media (Christin, 2018), and rankings and rating systems (Karunakaran, Orlikowski & Scott, 2022). Even when these technologies are in regular use, workers may be unaware of the granular levels at which their behavior is recorded, traced and analyzed to "direct, evaluate, and discipline workers" (Corporaal, this volume). Corporaal cautions against "algorithmic drama" (Ziewitz, 2016) and over attributing agency to algorithms. Algorithms need humans to be effective and are designed, and deployed by humans embedded within task structures (Cohen, this volume), occupational systems (Karunakaran, this volume), and larger socio-technical work systems (Nicolini and Erickson, this volume). Thus, any study of algorithm use would benefit from an appreciation of the broader system in which algorithms are developed (Anthony, Bechky, & Fayard 2023).

While some organizations may have become more permissive in terms of where and when people work, they are still able to enforce increasing accountability through new mechanisms of control (Mazmanian & Beckman, 2018) in ways that the Chicago Scholars could not have imagined. These effects are difficult to detect and observe as the means of control are encoded or embedded in everyday usage of a broad spectrum of technologies that both enable and constrain people's work lives—from wherever they are located (Mazmanian, Orlikowski & Yates, 2013). Unpacking how these varied and inscrutable means of control shape behavior may require multiple methods and diverse data sources from both the workers who use them and the organizations who design them to explain not only what is being controlled, but also why and how (Anthony, Bechky & Fayard, 2023).

With more permutations of communication channels than ever before, how people interact at work has shifted in ways that we have yet to fully understand or theorize. People have multiple and overlapping ways to interact in real time with colleagues, without being present, that challenge their attention and their relationships. As Pinch's (2010) reanalysis of Goffman suggests, technologies participate in the staging, mediation, and performance of interactions; however, the nature and consequences of these performances are under-analyzed. All authors in this volume note the many ways in which systems of work are both social and relational, but how the social fabric of work is disrupted and repaired is under examined. Many have noted the need for "overlapping time" or transition time between digital interactions to sustain the social fabric of the workplace (Goldberg, 2023), but few have unpacked the specific, consequential and often weird dynamics of interactions endemic to Zoom meetings and Slack communications. Social interactions are essential to work but notoriously hard to predict and govern. It is much easier for leaders to proclaim: "Everyone must come in to the office" than it is to synthetically manufacture the serendipitous but potentially productive exchanges of bumping into far flung colleagues at the elevator (Fayard & Weeks, 2007). How the social fabric of workplaces is being mended or ruptured post pandemic is an open question.

Parsing the Novel

Drawing from our experience as editors, reviewers and authors, we suggest four ways to help scholars accelerate parsing the novel. First, to bound our claims more precisely in ways that acknowledge the past and open future conversations, we need to increase the precision of how we theorize, analyze and explain our data. This requires comprehensive due diligence of prior research to facilitate the accumulation of knowledge. It is all too easy to forget the richness of studies conducted decades ago and assume minimal relevance, when

there may be a kernel worth extracting and polishing. Second, a core tenet of grounded theory is comparing and contrasting emerging phenomena to identify sources of commonalities and differences (Glaser & Strauss, 1967). We suggest broadening the analytic scope to examine those who create and design work technologies (Bailey and Barley, 2020) in addition to those who break them. Moreover, scholars need to compare and contrast use and nonuse equally (e.g. Leibowitz, Lifshitz-Asasf, Levina, 2022; Beane, 2023). Third, studies of digital work may permit exploration of alternative units of analysis such as meetings, interactions, iterations, revisions, work products, problems, solutions, presentations, incidents, crises, events, or changes. As both Cohen and Dokko show in this curated piece, nesting smaller analytic elements within larger contexts or processes may help reveal elusive micro-macro linkages in organizational behavior that are historically difficult to pinpoint. For example, when the most basic work element, like tasks, are altered by the introduction of new technologies, the changes made can reverberate throughout organizations and reshape careers. Fourth, scholars can leverage the rich streams of digital traces workers leave behind. For those studying digital work, there is more data accessible than Chicago School scholars could ever imagine—chat logs, screen shots, videos, memes, podcasts, zoom transcriptions and beyond. These data offer new levels of granularity as to how people interact and behave at work and can be mined for new insights—especially when created by workers themselves. Field researchers have a role to play in unpacking the meaning carried in those digital bits.

The ubiquity of digital and automated innovations has unleashed a maelstrom of research on the 'future of work', even as it unfolds in the present. Yet, scholars must be wary of the lure of the novel (O'Mahony & Cohen, 2023) and the sway of sexy empirics so that we can generate theoretical understandings that not only acknowledge the broad shoulders upon which we stand but also address present realities. There is much mature ground in terms of how and where work is performed and how tools and technologies can differ in their post-adoption consequences. Novel research designs will explore the ways organizational behavior is being influenced or controlled from afar, the digital traces we leave behind and what this means for those doing, managing and leading the work.

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