Adaptability in the digital workplace

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Technologically-mediated changes in the workplace are rapidly shifting how individuals and teams conduct their work in the knowledge economy. In recent years, the devastating COVID-19 pandemic has further fueled these workplace trends, pivoting the brick-and-mortar office increasingly into the digital realm. Now, more workers than ever before are engaging in work digitally (Richter, 2020). Recent studies are just beginning to grapple with what this digital workplace means for workers' well-being and collaborative team work (Faraj, Renno, & Bhardwaj, 2021). While existing research shows that the digitalization of work can enhance workers' well-being by providing flexibility, it is also seen as a double-edged sword as it may increase pressure for workers to cope with greater levels of stress and uncertainty.

A promising way to understand, and perhaps foreshadow, what workers' experience within a digitally- mediated work environment might be like is by examining the context of online freelancing platforms. These digital workplaces enable workers to virtually freelance across a broad spectrum of digital, and often knowledge-intensive, skills via short to long-term projects. Existing research shows that a defining characteristic of this digital workplace is the high degree of uncertainty and unpredictability that workers must face (Sutherland, Jarrahi, Dunn, & Nelson, 2020; Rahman, 2021). A key source of unpredictability stems from the digital nature of the workplace itself. Specifically, scholars have drawn attention to how the design and the algorithmic means of mediating relationships between workers and clients can induce power and information asymmetry between two parties, resulting in heightened precarity for workers (Sutherland et al., 2020; Rahman, 2021; Jarrahi & Sutherland, 2019; Hulikal Muralidhar, Rintel, & Suri, 2022). Different aspects of precarity have been illustrated through the lens of algorithmic evaluation (Rahman, 2021), reputation management, identity formation (Bellesia, Mattarelli, Bertolotti, & Sobrero, 2019) to name a few.

The dynamic nature of the digital work environment also means that workers on freelancing platforms need to continually manage a variety of negative career shocks (Seibert, Kraimer, & Heslin, 2016), such as finding new jobs, developing new skills, and dealing with setbacks such as receiving undesirable evaluations (Rahman, 2021), at a greater frequency. Existing literature shows that digital workers must learn to cope with negative career shocks far more frequently as compared to traditional knowledge workers because the platform-mediate environment has compressed various aspects of the employment process, from job search, to hiring, to project completion, to the payment of work (Blaising, Kotturi, Kulkarni, & Dabbish, 2021; Sutherland et al., 2020; Sutherland & Jarrahi, 2017). In recent years, scholars have paid critical attention to this new work arrangement because it may hold implications for the traditional work environment as

well. For instance, within traditional workplaces, there is a growing awareness amongst workers about the use of productivity tracking software that seems to capture workers' every move (Kantor, Sundaram, Aufrichtig, & Taylor, 2022). How these digital workers in the informal economy cope with the many challenges that digitalization of work brings may be a harbinger for the broader workforce.

Already, a growing body of research has captured a variety of strategies and practices that digital freelancers use to adapt to waves upon waves of financial, relational, emotional, and reputational shocks they encounter on the platform (Blaising et al., 2021). Across these studies, sensemaking about their digital work environment is an overarching theme and practice that workers engage in to continually cope with the variety of challenges that arise. Different studies have highlighted similar sensemaking tactics digital workers used to counter common challenges. For example, several studies have highlighted that digital freelancers engage in information seeking practices to gain more knowledge about which clients to avoid and to learn about various platform features to understand how its algorithms function (Blaising, Kotturi, & Kulkarni, 2019; Rahman, 2021; Sutherland & Jarrahi, 2017; Mˆohlmann, de Lima Salge, & Marabelli, n.d.). Studies have also shown how individuals' sensemaking processes lead them to adopt divergent tactics to tackle these common challenges. For example, Rahman's work demonstrated opposing ways in which freelancers react to unpredictability of the algorithmic evaluation process which has a direct impact on freelancers' platform reputation (Rahman, 2021). Some workers choose to minimize platform interaction to avoid additional data capture by the platform while others opted to increase engagement to experimentally test hypotheses about how the algorithm works. Despite highlighting these agentic aspects of workers' platform experience, because the focal point of these challenges primarily center around impositions caused by platforms and clients, the strategies uncovered have been more present-focused and reactive in nature. Subsequently, what is documented are the steps workers took to overcome these various roadblocks on a day-to-day basis (Rahman, 2021). Existing empirical evidence seems to paint a picture that suggest that while freelancing platforms market themselves as enabling flexibility and control for workers, the reality is that it thwart those expectations, falsifying promises of flexibility by creating a highly competitive, algorithmically-mediated, work environment that workers must continually battle against (Gray & Suri, 2019; Popiel, 2017).

But there is some empirical evidence to suggest that freelancers do enact longer-term, proactive strategies to cope with the challenges of digital work rather than simply maintaining a present-focused reactive stance. For example, Bellesia's work has uncovered ways in which workers have tried to gain skills they wish to acquire by indicating on their freelancing profile not just skills they currently possess but also skills they hope to learn in the future (Bellesia et al., 2019). Blaising's work captured how some freelancers sought to forecast needs to shift skill categories to manage fluctuating demands, and developed plans to pivot themselves towards a new skill set. Or, in order to build their freelancing business, workers took steps to form teams to augment their service capacity (Blaising et al., 2021). These bits of data hints at the fact that despite the various

shocks and setbacks that workers are confronted with on an ongoing basis, freelancers nevertheless practice longer-term, more proactive strategies in order to not only overcome near term challenges but potentially also to reach their longer- term goals.

Indeed, beyond the immediate possibility for flexible earning, prior studies have captured the fact that digital workers are also drawn to the platform with a desire to reach longer-term goals such as learning new skills, developing expertise, broadening their professional network, and furthering their careers (Barnes, Green, & De Hoyos, 2015; Margaryan, Albert, & Charlton-Czaplicki, 2022; Bellesia et al., 2019). Existing work noted that the skills workers developed on the platform could in some cases make them more employable outside the platform context (Barnes et al., 2015) and shape a more entrepreneurial identity (Bellesia et al., 2019). Yet, despite knowing the longer-term motivations of workers, we know relatively little about how they work through and around the digital work environment to achieve these goals; specifically, the sensemaking process and actions that digital workers engage in to proactively adapt to changing circumstances within a digital workplace, to remain resilience in the face of uncertainties whilst finding new opportunities on the near and far off horizon.

To start building a more comprehensive understanding of coping and adaptation strategies digital workers engage in, an ongoing pilot study is delving into one facet of the proactive coping method: future-oriented sensemaking; a process whereby individuals or a system pay attention to signals within their surroundings, extrapolate the meanings of these signals to future states, and devise a model of what is going on to mitigate potential future threats (Klein, Snowden, & Pin, 2011). Making sense of one's future is important because it holds implications regarding the behaviors and potential future outcomes that individuals might face. In the psychology literature, Aspinwall's work has shown that future-oriented thinking serves as a means of proactively cope with challenges and uncertainties in a variety of difficult contexts such as aging, discrimination, and dealing with disasters (Aspinwall, 2005). In organization studies literature, future-oriented sensemaking has been used as a lens to understand how entrepreneurs handle the inherent risks and uncertainties in their business endeavors (Ganzin, Islam, & Suddaby, 2020); this work highlighted the relationship between this sensemaking process and its influence in overcoming challenges and induce future behavior. Across these studies however (Bruskin & Mikkelsen, 2020; Ganzin et al., 2020; Aspinwall, 2005), few theorized about the affordances and limitations that digitalization plays into either the enhancement or reduction of uncertainty (Goto, 2022). By centering future-oriented sensemaking on digital workers, and by focusing on the digital in the understanding of future-oriented sensemaking, this exploratory project seeks to understand how future-oriented sensemaking supports proactive coping within a digital work environment that is highly uncertain, unpredictable, and precarious.

References

Aspinwall, L. G. (2005). The psychology of future-oriented thinking: From achievement to proactive coping, adaptation, and aging. Motivation and emotion, 29 (4), 203–235.

Barnes, S.-A., Green, A., & De Hoyos, M. (2015). Crowdsourcing and work: Individual factors and circumstances influencing employability. New Technology, Work and Employment, 30 (1), 16–31. Bellesia, F., Mattarelli, E., Bertolotti, F., & Sobrero, M. (2019). Platforms as entrepreneurial incubators? how online labor markets shape work identity. Journal of Managerial Psychology.

Blaising, A., Kotturi, Y., & Kulkarni, C. (2019). Navigating uncertainty in the future of work: Information-seeking and critical events among online freelancers. In Extended abstracts of the 2019 chi conference on human factors in computing systems (pp. 1–6).

Blaising, A., Kotturi, Y., Kulkarni, C., & Dabbish, L. (2021). Making it work, or not: A longitudinal study of career trajectories among online freelancers. Proceedings of the ACM on Human- Computer Interaction, 4 (CSCW3), 1–29.

Bruskin, S., & Mikkelsen, E. N. (2020). Anticipating the end: exploring future-oriented sensemaking of change through metaphors. Journal of organizational change management.

Faraj, S., Renno, W., & Bhardwaj, A. (2021). Unto the breach: What the covid-19 pandemic exposes about digitalization. Information and Organization, 31 (1), 100337.

Ganzin, M., Islam, G., & Suddaby, R. (2020). Spirituality and entrepreneurship: The role of magical thinking in future-oriented sensemaking. Organization studies, 41 (1), 77–102.

Goto, M. (2022). Accepting the future as ever-changing: professionals' sensemaking about artificial intelligence. Journal of Professions and Organization, 9 (1), 77–99.

Gray, M. L., & Suri, S. (2019). Ghost work: How to stop silicon valley from building a new global underclass. Eamon Dolan Books.

Hulikal Muralidhar, S., Rintel, S., & Suri, S. (2022, nov). Collaboration, invisible work, and the costs of macrotask freelancing. Proc. ACM Hum.-Comput. Interact. 6 (CSCW2). Retrieved from https://doi.org/10.1145/3555175 doi: 10.1145/3555175

Jarrahi, M. H., & Sutherland, W. (2019). Algorithmic management and algorithmic competencies: Understanding and appropriating algorithms in gig work. In International conference on information (pp. 578–589).

Kantor, J., Sundaram, A., Aufrichtig, A., & Taylor, R. (2022). The rise of the worker productivity   score.

https://www.nytimes.com/interactive/2022/08/14/business/worker-productivity-tracking.html.

Klein, G., Snowden, D., & Pin, C. L. (2011). Anticipatory thinking. In Informed by knowledge (pp. 249–260). Psychology Press.

Margaryan, A., Albert, J., & Charlton-Czaplicki, T. (2022). Workplace learning in crowdwork questionnaire (wlcq): Measuring self-regulated learning and skill development in online platform work. International Journal of Training and Development.

Möhlmann, M., de Lima Salge, C. A., & Marabelli, M. (n.d.). Algorithm sensemaking: How platform workers make sense of algorithmic management.

Popiel, P. (2017). "boundaryless" in the creative economy: assessing freelancing on upwork. Critical Studies in Media Communication, 34 (3), 220–233.

Rahman, H. A. (2021). The invisible cage: Workers' reactivity to opaque algorithmic evaluations. Administrative Science Quarterly , 66 (4), 945–988.

Richter, A. (2020). Locked-down digital work. International Journal of Information Management, 55 , 102157.

Seibert, S. E., Kraimer, M. L., & Heslin, P. A. (2016). Developing career resilience and adaptability. Organizational Dynamics , 45 (3), 245–257.

Sutherland, W., & Jarrahi, M. H. (2017). The gig economy and information infrastructure: The case of the digital nomad community. Proceedings of the ACM on human-computer interaction, 1 (CSCW), 1–24.

Sutherland, W., Jarrahi, M. H., Dunn, M., & Nelson, S. B. (2020). Work precarity and gig literacies in online freelancing. Work, Employment and Society , 34 (3), 457–475.