

Meaningfulness and relational dimensions in digital work: a concept-driven literature review

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Introduction

The integration of digital technologies into professional settings has led to what scholars describe as the datafication of work, a transformational process in which data become a central resource for organizing, coordinating, and evaluating work (Stein et al., 2019). As data and algorithms are incorporated into everyday work, even traditional domains of expertise are being reconfigured in ways that simultaneously enable and challenge established work practices, professional roles, responsibilities, and relationships (Baptista et al., 2020; Orlikowski & Scott, 2016). This involves a shift in how work is organized, experienced, and valued, including interpreting, documenting, and responding to data (Aanestad, 2024), which can reconfigure professional judgment and erode meaning in work (Hoeyer & Wadmann, 2020). Such conditions raise questions about professionals' sense of purpose, autonomy, and well-being and renewed interest in what constitutes meaningful work amid rapid technological change (Stein et al., 2019). Within this body of research, a variety of overlapping concepts have been used to characterize the forms of work that emerge with digital technologies. van den Broek (2025) distinguishes between the interconnected aspects of such work as: *data work*, the production and maintenance of data; *knowledge work*, the situated interpretation and use of data and algorithmic outputs; and *values work*, the negotiation of norms and legitimacy around digital practices.

To deepen our understanding of meaningfulness in datafied contexts, we draw on Hartmut Rosa's (2019) theory of resonance, which highlights the relational and affective dimensions of societal life. Rosa's work focuses on how individuals experience connection versus disconnection, what he terms resonance versus alienation, in their interactions with technologies, institutions, and others. In this paper, we present initial findings from a concept-driven narrative literature review (Webster & Watson, 2002), which focuses on technology and the changing nature of work, inspired by van den Broek's (2025) framework. Guided by Rosa's relational lens of resonance, we aim to explore how professionals maintain or lose a sense of connection and responsiveness in increasingly datafied work environments (Rosa, 2019). The research question is: *How have key concepts related to data, digital technologies and work been conceptualized and empirically illustrated in prior IS research and what emerging themes related to experiences of meaningfulness and resonance can be identified in this literature?*

Method

Following the concept-centric approach to literature reviews (Webster and Watson 2002), we searched for terms associated with data and work ("data work", "knowledge work", "values work", "digital work", "datafication work") in the AIS Senior Scholars basket of eleven IS journals. We limited the search to the title, abstract, and keywords and included articles published between 2014 and 2027. The search resulted in 171 articles. After screening the abstracts, 60 articles were read in full text. Out of the 60 articles, 44 were excluded because they did not report empirical findings or did not focus on work or workplace contexts. Studies primarily centered on individual behavior, performance, or effectiveness were also excluded. Subsequently, 16 articles were found to be within the scope of this review (marked with an asterisk* see References). The screening of

abstracts and the full-text assessment were conducted independently by both authors and discussed until consensus was reached. The review focused on empirical studies with a practice-oriented perspective on work in organizational or workplace contexts, i.e., examining work as situated and socially embedded. The analysis followed an inductive, interpretive approach, informed by the study's theoretical framework (Walsham, 2006) and conducted using reflexive thematic analysis (Braun & Clarke, 2006, 2019). We analyzed and synthesized the final set of 16 selected articles, according to the following protocol: author(s); publication year; outlet; aim/research question; methods; context and key concepts/themes. Thereafter followed an iterative process of reading and coding, collaboratively summarizing the findings, including and refining themes, while engaging in reflexive discussions to challenge assumptions and deepen our interpretations.

Findings: (preliminary themes)

In this section, we outline our initial findings from the literature review, presented as a set of interconnected themes, identified across the articles. The analysis is guided by our interest in understanding the relationship between data work, knowledge work and values work (van den Broek, 2025) and how they relate to experiences of meaningfulness and resonance (Rosa, 2019). The three main themes are summarized and presented below with illustrative examples drawn from the reviewed papers.

Theme 1: Tensions and paradoxes

Across the reviewed papers, digital technologies simultaneously enable and constrain work, often described as tensions, unintended outcomes or contradictions. Bunduchi et al. (2025), for example, shows how automation through robotic process automation (RPA) transforms work through step-by-step configurations in which data and work practices become increasingly integrated over time, reflecting a short-term inefficiency that eventually resulted in a redistribution toward more qualified work. However, such shifts may also introduce unintended risks, including skill erosion and growing dependence on automated systems (Rinta-Kahila et al., 2023). Benabid and Abdalla Mikhaeil (2025) identify a visibility paradox in hybrid workplaces, where internal social platforms make expertise more accessible while simultaneously obscuring other forms of knowledge and increasing cognitive load. Similarly, Forsgren and Byström (2018) show how information sharing in multiple social media at work both creates meaning and contradictions. Lebovitz, Levina and Lifshitz-Assaf (2021) further illustrate tensions between algorithmic representations of knowledge and professional expertise, as attempts to standardize knowledge through ground-truth data may conflict with the situated nature of expertise. Tensions are also evident in collaborative and organizational processes. Morton, Wilson and Cooke (2020) found that using an open strategy encouraged participation and made digital strategy work more transparent, but also required moderation and synthesis to handle the large volume of input. Moreover, digital connectivity allows work to extend across time and space, affecting work-life roles (Mirbabaie & Marx, 2024), and, as Tiilikainen et al. (2024) note, constant interruptions and demands for responsiveness require new norms and routines to maintain focus.

Theme 2: Workarounds and the expansion of (invisible) work

Another recurring theme, often arising from the tensions described above, concerns how digital systems reconfigure what becomes visible in work while simultaneously generating hidden or invisible tasks that increase workers' responsibilities. Parmiggiani, Østerlie and Almklov (2022) describe this as backstage work in data science, and Grønsund and Aanestad (2020), analyzing how algorithms and humans interact, identify

augmentation work, in which professionals continuously audit, adjust and reinterpret algorithmic outputs. Festila and Müller (2022), in another context, show how integrating diverse health IT systems requires clinicians to perform additional coordination and workaround tasks to bridge gaps between technologies, exemplifying how digital infrastructure creates new forms of invisible glue work. Furthermore, Aaltonen and Stelmaszak (2024) note that knowledge professionals continuously generate trace data through routine activities such as emails, logs, and collaborative edits, which are later analyzed for insights. As work output becomes increasingly visible through trace data and enterprise social networks, important context and tacit knowledge may simultaneously become hidden, requiring employees to perform additional interpretive work. In this sense, datafication both reveals and hides work, while also expanding it through new, often invisible, tasks.

Theme 3: Responsibility and epistemic claims for knowledge and expertise

Finally, a recurring theme is how expertise, authority and accountability are reconfigured when algorithms replace or augment human roles. Studies on algorithmic decision-making, such as van den Broek, Sergeeva and Huysman (2021), show that while algorithms are often introduced with the expectation that they can replace human judgment, their limitations lead to the reintroduction of expert knowledge and feedback mechanisms. This underscores the importance of human know-how and contextual judgment, aligning with Lebovitz, Levina and Lifshitz-Assaf (2021), who warn that relying solely on experts' explicit knowledge offers only partial, decontextualized knowledge for AI, increasing the risk of misguided decisions when human tacit insights are ignored. Closely related to this is the development and erosion of expertise, described by Rinta-Kahila et al. (2023) as a vicious circle of skill erosion in which reliance on AI outputs reduces opportunities to practice skills and professional judgment, leaving workers less capable of identifying or correcting errors. This redistribution of expertise also reshapes responsibility. Tona et al. (2025) show how AI tools shift responsibility for career development, as employees are expected to continuously curate their digital profiles, while managers must interpret AI-generated data and combine automated assessments with human judgment. Willems and Hafermalz (2021) introduce the concept of distributed seeing, demonstrating how humans and algorithms each possess partial perspectives. While these combined perspectives can enhance decision-making, they also create vulnerabilities and shared accountabilities when outcomes are uncertain.

Discussion

In this paper, we draw on Rosa's (2019) concepts of resonance and alienation to understand what constitutes meaningful work in increasingly datafied environments (Stein et al., 2019). From this perspective, meaningful data work is fundamentally relational, emerging through engaged and responsive connections to work practices, data, and others, whereas alienation reflects experiences of disconnection, unresponsiveness, and loss of meaning. Across our themes, this relational dynamic recurs in different ways.

First, tensions and paradoxes (Theme 1) highlight how meaningful engagement depends on maintaining responsive and context-sensitive relationships, rather than reducing work to fixed metrics and standardized outputs. The tension between quantification and meaningfulness illustrates how data work can both constrain and enable resonance. When enacted primarily through monitoring and performance metrics, work risks become decontextualized and distant, but when used as a basis for dialogue, interpretation, and shared understanding, it can support more meaningful engagement. Second, the theme of invisible work and expansion (Theme 2) shows how professionals

actively sustain resonance through often hidden forms of glue work, such as coordinating systems, interpreting data, and aligning practices. At the same time, these activities remain largely unrecognized, pointing to how meaningful aspects of work are frequently overlooked in data-driven environments. This suggests that resonance is not a stable condition but requires ongoing balancing, in which professionals shift between deeper engagement and more distanced modes of interaction to manage increasing demands. Finally, the theme of responsibility and epistemic claims (Theme 3) illustrates how datafication redistributes authority and accountability. As work becomes mediated by algorithms, meaningful engagement depends on the continued presence of human judgment and contextual know-how. When these are marginalized, work risks becoming alienating, whereas when combined with data in reflective and situated ways, they can sustain a sense of agency and purpose.

Our findings highlight that data is not neutral and, thus, experiences of meaningful work depend on how it is enacted in practice. The same data that can reduce work to measurable outputs can also support meaningful interactions. Rosa's perspective reminds us that not all aspects of professional life can or should be continuously resonant. Resonance is fragile and contextual, and even the most meaningful digital work involves routine or detached moments necessary for maintaining professional boundaries and focus. These tensions can be understood from a sociotechnical perspective as an unstable equilibrium continuously rebalanced by contradictory but complementary forces rather than stabilized into fixed configurations (Fischer & Baskerville, 2022).

Conclusion

This literature review aimed to capture conceptualizations of digital work in IS literature and explore how professionals maintain or lose a sense of connection and responsiveness in increasingly datafied work environments. Our findings, through the lens of resonance, highlight the tension between quantification and meaningfulness in contemporary work. If data is used mainly for monitoring and metrics, professionals can start to feel distanced and disconnected from the purpose of their work, but if used as a basis for dialogue and shared understanding, it can strengthen connection and support more meaningful work. At the same time, these dynamics reflect a broader tendency to prioritize what is easily measurable, which is often quantitative indicators, while overlooking relational and human dimensions of work that are more difficult to capture.

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