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Organizational perspectives on digital labor market intermediaries

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Abstract

Dramatic changes in organizational forms and employeeemployer relationships have coincided with a proliferation of labor market intermediaries. Often digital and internet-based, these new hiring technologies assist organizations in recruiting and screening potential job candidates. We identify three types of digital labor market intermediaries (dLMIs): connectors, curators, and comminglers. We examine the use of dLMIs through the lens of organizational theory, focusing on implications for organizational efficiency, power, and equity. dLMI use is patterned but variable across different organizations and has unintended outcomes that defy efficiency expectations. It poses new constraints for job seekers while allowing organizations and intra-organizational groups to negotiate institutional pressures and power imbalances. Finally, dLMI use appears to reproduce pre-existing inequalities among different types of employees.

KEYWORDS

hiring, intermediaries, Internet, labor markets, organizations, technology

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1 | INTRODUCTION

Technological change looms large in the study of organizations and work. Industrial and digital technologies are credited with prompting organizational rationalization, restructuring, and out-sourcing, network forms of organization, intensified labor exploitation, and generally with transforming employment relationships (Barley, 2020; Bartley et al., 2019; Braverman, 1974; Harrison & Bluestone, 1990; Podolny & Page, 1998; Rubin, 2012). Researchers have also examined the impact of technology on markets, but mostly finance markets (Callon, 1998; MacKenzie & Millo, 2003; Zaloom, 2003). By contrast, the role of technology in labor markets has received less attention. The studies that do exist suggest that digital, internet-based technologies have enabled new labor market situations which complicate organizational boundaries and defy easy categorization as employment or independent contracting (Schor & Vallas, 2021; Vallas & Schor, 2020). Even for so-called "standard" employment, new digital tools have transformed the way workers and employers are matched (Ajunwa & Greene, 2019).

These shifts have affected workers' experiences, including precarity, boundaries between employment and personal life, autonomy, and alienation (Glavin et al., 2021; Kalleberg, 2009; Pedulla, 2020; Schor, 2008; Wood et al., 2019; Wood & Lehdonvirta, 2021), as well as work relationships (Chen & McDonald, 2015; Cristea & Leonardi, 2019; Schwartz, 2018) and status differentials (Bianchi et al., 2010; Metiu, 2006). Researchers have contemplated the organizational implications of dis-embedded workers (Bartley et al., 2019) and new forms of power and control (Rahman & Valentine, 2021; Shestakofsky, 2017). However, the scope of technological change in labor markets over the last two decades has been dramatic, and relatively little is known about organizational consequences.

Our examination of the organizational implications of digital labor market intermediaries (dLMIs) reveals three types: those that help *connect* employers and potential employees, those that help *curate* information about job candidates, and those that *commingle* these two functions. After describing this typology, we turn to organizational theory to better understand the social implications of these technologies—specifically, issues of efficiency, power, and equity in organizations. These considerations reveal how dLMIs operate as tools through which organizations "see" and interact with the market. Their technical functionalities, their use in hiring, and their constructed meanings shape not only the membership but also the very character of organizations.

2 | WHAT ARE DIGITAL LMIS?

Labor market intermediaries are "entities or institutions that interpose themselves between workers and firms to facilitate, inform, or regulate how workers are matched to firms, how work is accomplished, and how conflicts are resolved" (Autor, 2009, p. 1). The most common LMIs are interpersonal job contacts—that is, individuals who pass along information about job opportunities to friends, relatives, and acquaintances. Other prominent intermediaries, pre-internet, included executive search consultants (Finlay & Coverdill, 2007) and staffing agencies (Benner et al., 2007; Bonet et al., 2013), as well as print media, like job advertisements in newspapers or magazines. Interpersonal contacts remain important today, though face-to-face interaction is now supplemented by social media communication. Other traditional intermediaries have been overshadowed or even supplanted by the rapid proliferation of websites devoted to sharing information about labor supply and demand.

The dLMIs of the late 1990s took on the look and functionality of traditional job advertisements, but these have since given way to massive employment compendiums and, more recently, sophisticated dLMI platforms. Ajunwa and Greene (2019, p. 63) define platforms as "digital intermediaries that invite submission of data from one party through pre-set interfaces and structured protocols, process that data via proprietary algorithms, and deliver the sorted data to a second party." Many algorithms employed by platform dLMIs can home in on personalized websites and social media profiles, allowing individuals and companies to connect more easily than ever before. Advances in Al-driven database management have spawned web-based interfaces that control the flow of information between

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job seekers and organizations (Ajunwa & Greene, 2019). Social media websites have expanded the set of online connections that facilitate the diffusion of information about job opportunities (Burke & Kraut, 2013). Entire platforms have been developed to facilitate contracting and subcontracting arrangements (Schwartz, 2018). But not all dLMIs operate as platforms. Non-platform dLMIs include websites that simply post job opportunities, such as those sponsored by professional associations. Further, while all platforms are intermediaries, they do not necessarily mediate labor markets. Digital LMI platforms facilitate connections and contracting between employers and employees. Platforms that directly employ workers do not have the same mediating function. We therefore do not consider Uber to be a dLMI because the company essentially employs workers directly (despite the company's protestations to the contrary) rather than mediating contractual arrangements between workers and organizations or other individuals (as is the case with M-Turk workers, for example).

3 | DIGITAL LMI AFFORDANCES

Researchers in the field of science, technology, and society commonly characterize technologies based on their *affordances*, which refer to the various ways in which they may (or may not) be used (Hutchby, 2001). For example, one might consider how a stethoscope affords doctors with an opportunity to monitor the heart rates of their patients, or how that same device might afford bank robbers with the means to crack the combination on a safe. We draw on this approach to classify dLMIs into three broadly defined categories (connectors, curators, and comminglers) that emphasize their primary affordances for employers and job seekers. After describing these functions below (also summarized in Table 1), we briefly consider how the specific features of digital LMIs provide a more detailed set of opportunities and constraints on action.

3.1 | Connectors

Job posting websites such as Monster and CareerBuilder began emerging in the mid-1990s (Ajunwa & Greene, 2019). Since then, scores of additional websites emerged to allow employers to post job advertisements and workers to

Name	Definition	Examples
Connectors	Digital technologies that connect workers and employers. Includes websites where employers can post information about job openings, aggregators that collect and redistribute such postings, and platforms that facilitate labor contracting for various tasks	Job posting websites: Indeed, Monster, USAJobs Aggregators: Indeed, ZipRecruiter Gig work/freelance websites: UpWork, TaskRabbit, Amazon Mechanical Turk
Curators	Websites and applications that allow companies to collect, organize, and analyze information from job applicants and other potential candidates. Includes automated hiring platforms that collect job information, applicant tracking systems that manage the hiring process, and web-based search and screening tools used for vetting job candidates	Automated hiring platforms: Workstream, vsource Applicant tracking systems: Taleo, Greenhouse, iCIMS Web search tools: Google Background check platforms: HireRight, Experian, Edge Employment Screening
Comminglers	Social media platforms that fulfill connecting and curating functions simultaneously. They allow for the broad diffusion of information about job openings and candidates. They serve as repositories of candidate and employer information that is used in search and screening	<i>Social media</i> : LinkedIn, Facebook, Twitter, Instagram

TABLE 1 Digital labor market intermediary typology

view and apply to them. Later iterations of job posting sites (like Indeed) served as aggregators that collect job ads posted elsewhere. The growth of these connectors fueled specialization in job posting. Workers seeking employment in the technology sector can find employment opportunities on Dice.com. TheLadders.com hosts advertisements only for jobs with an annual salary in excess of \$100,000. Many large organizations maintain their own job posting portals, such as the US federal job posting site, USAJobs. Professional organizations typically maintain occupation- or industry-specific job posting websites, while college career offices and alumni association sites allow employers to target job ads to their students. Both types of sites typically feature email distribution listservs that share information about new openings with their members. Niche association websites that center on worker identities and statuses (e.g., Gay and Lesbian Medical Association) compile job opportunities for members while also giving employers a contact point for diversifying their applicant pools. Finally, as contingent labor has increased (Kalleberg, 2011), so too have platforms that connect employers to temporary contract workers. UpWork, Freelancer, Fiverr, and many other platforms allow employers to contract freelance individuals to work on specific projects. TaskRabbit and Amazon's Mechanical Turk platform facilitate hiring individuals on the basis of tasks rather than projects.

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Employers also use dLMIs to gather and organize information about job candidates. One example is automated hiring platforms (AHP), which serve as a technological interface for job applications. AHPs confront job applicants with a set of structured data input fields that are highly customized for employers, restricting the information that applicants can provide in order to standardize data collection processes (Ajunwa & Greene, 2019). Applicant tracking systems (ATS) are web-based data management tools that help to organize the various stages of the hiring process. Applicant information obtained from mass posting sites and AHP interfaces feeds into an ATS, where HR staff can conduct keyword searches and review resumes, as well as manage callbacks, interviews, background checks, and new hire "onboarding" processes.

Web-based tools are used to gather and evaluate applicant information, as well as organizing it. Hiring agents frequently engage in "cybervetting": using Google searches and reviewing social media profiles to learn more about the personal and professional lives of job candidates (McDonald et al., 2022). Employers also use online tools to run a variety of background checks on job applicants. Criminal background checking can be conducted through proprietary websites like hireright.com or goodhire.com. Credit checks are also a common part of applicant screening (Kiviat, 2019) and can be conducted through websites like experian.com. Hiring consultants are now offering personality or psychological screening via the scraping and review of applicant's social media posts. One major site— Glassdoor—allows employees to "see in" to potential employer organizations, though generally the dLMI gaze is focused in the opposite direction.

3.3 | Comminglers

Social media platforms are a unique form of dLMI in that they facilitate both connection and curation. LinkedIn plays a central role in connecting employers with new employees (Sharone, 2017), especially in professional, technical, and managerial arenas. While employers may post information about job openings on LinkedIn's job board or in their news feeds, the platform also facilitates informal recruitment of workers. Individuals maintain profile pages that display work experiences and skills, and may link to colleagues or personal friends. This allows HR professionals to identify potential job candidates and encourage them to apply for job openings (McDonald et al., 2019). Other social media websites like Facebook, Instagram, and Twitter can serve similar purposes, though their impact on hiring is currently modest relative to LinkedIn. Conversely, mass posting sites like Indeed operate most prominently as connectors, but also maintain search functions that support employer curation of potential job candidates. Thus, the commingler category draws attention to the fluid functionality of dLMIs.

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3.4 | Differential affordances

Technologies can have general, widely shared affordances, but also specific features that differentiate those affordances for various groups of users. For example, a public health poster may provide a general affordance of providing laypeople with medical information, but the poster's language and location may limit this affordance to a subset of the population, excluding others (McDonnell, 2010). Similarly, the features of dLMIs may promote distinct forms of connection, curation, and commingling that privilege some users, uses, and types of information or connection over others.

A useful illustration is provided by Ajunwa and Greene's (2019) analysis of the affordances embedded in AHP systems. They explain how core features such as highly structured data input fields afford companies the opportunity to obtain responses that match their specific hiring criteria, but also constrain applicants' ability to share information about their skills and experiences. Thus, AHPs promote an asymmetric form of curation that grants greater power to organizations than to applicants. One may also consider how LinkedIn's features have made it the premier platform for recruiting passive job candidates. The company offers an enterprise subscription that allows users to view LinkedIn profiles for people with whom they are not already connected and to send direct messages to those individuals via the InMail messenger. HR staff, especially in the large corporations and staffing agencies that purchase this subscription, are afforded the opportunity to identify and recruit "passive" job candidates, or individuals who are currently employed and not actively looking for work (McDonald et al., 2019). Thus, LinkedIn's features promote curation and connection involving passive candidates more than unemployed workers or other active job seekers.

4 | IMPLICATIONS

How, then, do dLMIs impact organizations, and how can organization theory enrich our understanding of their affordances? Below we identify three areas or organizational scholarship that are directly relevant to the expanding use of dLMIs.

4.1 | Efficiency

The notion that organizations adopt practices and structures in a quest for efficiency—broadly understood to include productivity increases, cost reductions, and improvements to precision, speed, and other forms of "technical superiority" as described by Weber—has long played a role in organizational theorizing. Efficiency imperatives have been seen as a central organizing force, or as one of several factors that also include culture, power struggles, legitimacy demands, and other internal and external circumstance (Haveman & Wetts, 2019a, 2019b). Accordingly, organizations are thought to adopt new technologies (at least in part) in order to increase their efficiency, for instance by enhancing, controlling, or cheaply substituting for human labor (Autor et al., 2003; Braverman, 1974). Such moves are often cast as inevitable: organizations *must* keep up in order to avoid being supplanted by competitors. Thus, efficiency accounts of organizational action frequently veer into determinism, or the view that forces "prior to, external to, and independent of" (Leonardi & Barley, 2008, p. 160) human action "actively cause new forms of social relations to come about" (Hutchby, 2001, p. 442) in a law-like fashion. In matters of technology and organizing, the determinism is both economic and technological: economic forces compel organizations to adopt efficiency-enhancing technology, and the technology reliably produces promised efficiency improvements.

In the case of dLMIs, this sort of thinking is most evident in the business and human resources literature. One illustration is Cappelli's (2001, p. 146) claim that "advancing technology will allow companies to further shorten the hiring cycle by becoming more efficient at hunting for new people and sorting applicants." Predictions of the wide-spread adoption of dLMIs are based on optimistic claims about their ability speed the hiring process and improve

the quality of its outcomes. dLMIs are superior connectors: they are thought to circumvent geographic barriers and "old boys' networks," allowing employers to publicize job openings more widely, quickly, and cheaply than newspaper advertising, interpersonal contacts, or other traditional LMIs. As curators, dLMIs can perform skills tests and background checks, and their automated and algorithmic search functions may be used to ease the process of matching candidates to jobs (Autor, 2001; Freeman, 2002; Nakamura et al., 2009; Niles & Hanson, 2003). By enabling "cybervetting," they provide a window onto job candidates' appearances, lifestyles, personalities, and potentially problematic behaviors. This allows employers to assess candidates' cultural "fit" and reduce hiring uncertainties, at low cost and before applicants are interviewed (Carr, 2016; Hoek et al., 2016). All of this suggests that dLMIs can not only improve the efficiency of the recruiting process but also increase the quality of job matches, thereby increasing productivity (Autor, 2001; Cappelli, 2001; Freeman, 2002).

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However, the scholarship also shows that dLMIs have unintended and undesired consequences. For instance, it is unclear whether digital connectors offer optimal or rather over-connectedness. They certainly speed and broaden transmission of employers' job advertisements, but they also ease the application process for job seekers, who can send the same materials to multiple employers with the click of a few buttons. This leads to hiring agents being flooded with more applicants than they can screen, which enlarges and complicates the task of reviewing and selecting finalists (McDonald et al., 2019). Many employers respond by piling on more technology, whether by using existing database search tools or by purchasing elaborate AHP and ATS systems. Thus, costs saved in publicizing job openings may be spent on managing the results (Autor, 2001; Cappelli, 2001). Further, the search tools used by these systems are largely keyword driven and, in some cases, overly precise. Especially in fields with polyonymous tasks and skills, they may miss qualified candidates due to mismatched terminology (Gershon, 2017). Also, to the extent that dLMIs make search cheaper and easier, they may encourage over-search on both sides of the market, ratcheting up expectations and lengthening rather than shortening unemployment stints and job vacancies (Freeman, 2002; McDonald et al., 2019). Digital LMIs also promote job search by the already-employed, a favorable situation for organizations that recruit "passive" candidates, but one that is also likely to result in increased turnover (Freeman, 2002; McDonald et al., 2019; Nakamura et al., 2009). Thus, in addition to benefitting employers, dLMIs can generate economic costs, additional work demands, and instability in personnel.

The ambiguous and uncertain outcomes of dLMIs reveal the importance of organizational theory for understanding of their impact. One particularly useful body of scholarship focuses on how organizations choose and use technologies, while also being shaped by them (Barley, 2020; Orlikowski, 2007). Researchers acknowledge that technical affordances pose real capacities and constraints, but avoid determinism. As Orlikowski (2000, p. 407) puts it, technology does not exist "out there," independently determining organizational action, but rather exists "in practice": structured technological practices emerge "from people's repeated and situated interaction with technologies." Technology practices and their outcomes thus depend on existing workplace role-structures as well as cultural frames, industry or occupational regulations, and other environing conditions (Barley, 2020; Vallas & Schor, 2020). This means that a single technology may be used differently, with varied consequences, across different organizations or across work groups within a single organization (Barley, 1986; Leonardi, 2013; Orlikowski, 2000). Further, technological practices can transform organizations and even their larger industrial settings over time (Leonardi, 2013; Scott & Orlikowski, 2022).

This aptly describes the situation with dLMIs, the affordances, use, and consequences of which are socially patterned but hardly uniform. For instance, because of their intermediary role, the utility of dLMIs on they buyers' side of the market (i.e., for hiring organizations) is influenced by perceptions and practices on the sellers' side (i.e., among potential employees). Thus, job postings on employer "Careers" web pages are useful recruiting tools for organizations that are well known to candidates, but this affordance does not exist for more obscure employers. Industrial and regulatory norms also shape dLMI use. Among for-profit employers, especially small ones, cybervetting is viewed as a virtual necessity for minimizing the risk of problem hires. However, the practice is often eschewed by large and/or public sector organizations, which likely face higher expectations for transparency and fairness in their hiring practices (Wilcox et al., 2022). dLMI use also shifts with organizations' specific hiring goals. Hiring agents trying

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to fill multiple openings or build a "pipeline" of candidates to hire over time often chose LMIs that maximize exposure, such as ongoing job-board postings, search of existing candidate databases from previous hires, and participation in job fairs; these costly and time-consuming practices make less sense for employers seeking to fill a single, one-time opening. Brencic and Norris (2009) also found that employers trying to fill jobs quickly used dLMIs differently than those hiring at a more leisurely pace. Additionally, the use of specific dLMIs has changed over time. In the early days of online recruiting, hiring agents used job boards such as Monster to target skilled and desirable candidates, that is, those with the ability and resourcefulness to conduct then-rarified online job search (Fountain, 2005; Niles & Hanson, 2003). Today those same dLMIs and their successors are frequented by masses of jobseekers and associated by some hiring agents with lower-quality candidates, while the LinkedIn social media platform has become the dLMI of choice for recruiting highly skilled and professional employees.

Thus, dLMIs open up new opportunities for employers but, like other technologies, they also "bite back" (Tenner, 1996). There is no simple set of most efficient and effective dLMIs or associated recruiting practices, because dLMI use has no deterministic outcomes. Instead, as the practice-based models of technology and organizations suggest, the use and consequences of dLMIs depend not only on their technical affordances and limitations, but also on how these affordances interact with particular hiring goals, patterned hiring practices, and organizational, industrial, and labor market conditions.

4.2 | Power

Digital LMIs shed light on the consequences of emergent forms of organizational power. Weber (1922, p. 26) defined power as the ability of an actor "to carry out his own will despite resistance." More recently, power is understood not as an attribute of actors, but as a relational process (Roscigno, 2011). For example, resource dependence theory (Pfeffer & Salancik, 1978) highlights the ways organizations engage in relational power struggles to stabilize and protect important resources such as supply of materials or labor. Organizations also derive power through perceived legitimacy, or the extent to which they "meet institutional expectations for how they should look and act" (Zuckerman, 1999, p. 1399). Neo-institutional theory underscores how organizations seek to enhance their perceived legitimacy by responding to external cultural pressures (DiMaggio & Powell, 1983; Meyer & Rowan, 1977). One such pressure relevant to dLMIs is the expectation that organizations follow what Fourcade and Healy (2017) call the data imperative, which requires that they gather mass amounts of information on their workplace and market context to inform "data-driven" decision making (Saifer & Dacin, 2022). Current evidence suggests that organizations have been increasingly turning to dLMI technologies to comply with this imperative. Surveys of HR professionals show that technology budgets for HR management system (HRMS) software have been expanding in recent years (Sapient Insights Group, 2021). At the same time that they amass big data, HR staff also attempt to manage the hiring process by using Internet tools to access detailed, qualitative information on individual candidates. They increasingly agree (from 30% in 2011 to 44% in 2015) that public social media profiles can provide important information about work-related potential or performance (Society for Human Resource Management, 2016). During that same time period, their reported use of public social media profiles to screen job candidates increased from 18% to 39% and their use of social media platforms to recruit workers increased from 56% to 84% (Society for Human Resource Management, 2016).

Like many other aspects of the data imperative, the expanded adoption and use of dLMIs by organizations is largely ceremonial (Fourcade & Healy, 2017). Organizational actors have fetishized the collection of "big data" as an end unto itself (Saifer & Dacin, 2022)—assuming the eventual utility of the data with little concern for its veracity (Fourcade & Healy, 2017). In fact, massive data collection activities often result in perverse outcomes for organizations, as having too much data (and data that are too noisy) promotes organizational ignorance rather than reducing it (Schwarzkopf, 2020). The true benefit of dLMI adoption and use lies not in improved decision making capacity, but rather in the legitimacy that these technologies grant to organizations. Investing in HRMS software and advanced

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ATS systems, for example, demonstrates that organizations are responding seriously to the need for data-driven solutions at the hiring interface.

dLMIs are also central to understanding power dynamics within organizations. Inhabited institutions theory (Hallett & Hawbaker, 2021; Hallett & Ventresca, 2006) offers crucial guidance here, as it directs attention to how organizational actors reflexively interpret the meanings of institutional pressures and apply them to their work. The micro-interactional consequences are central for resolving group contestation over organizational power and resources (Tomaskovic-Devey & Avent-Holt, 2019). Further, adoption of new technology frequently plays a role in such contests, as some organizational actors use it to advance their own status or power, while others ignore or resist it (Hanley, 2014; Vallas, 1998). HR professionals serve as an ideal test case. Classic organizational studies have described human resources and personnel staff as being "organizationally powerless," as well as "dependent" on and ignored by line managers who see them as irrelevant, meddlesome, and/or intrusive (Jackall, 1988; Kanter, 1977, p. 187). A more recent, popular-media editorial offers an even starker assessment of HR, describing it as "at best, a necessary evil—and at worst, a dark bureaucratic force that blindly enforces nonsensical rules, resists creativity, and impedes constructive change" (Hammonds, 2005). In response to their marginalized status within organizations, HR professionals often seek solidarity through their own professional networks and conferences. For example, one can contrast the negative organizational view of HR with how their role is portrayed by HR conference organizers as rock stars, VIPs, and movie stars (see Figure 1).

The rise of dLMIs has transformed the power dynamics within work organizations. On the one hand, digital tools have made it easier for organizational actors outside of HR to gather and process information about potential job candidates, calling into question the necessity of HR staffing functions (Coverdill & Finlay, 2017). On the other hand, rising institutional pressures to meet the data imperative have perhaps enhanced the status of HR in organizations by justifying the need for greater investment in these technologies, strengthening their claims to technical expertise, and mastering the use of these technologies. We have observed this latter phenomenon directly in our own field-work. At a session in one conference noted above, a consultant advised attendees to use data analytics technology to frame their work as vital to business strategy, thereby becoming a "strategic weapon" for the organization rather than merely filling a "support role." And in our interviews, HR staff frequently discussed their attempts to guide how hiring managers use Internet searches and tools for job candidate vetting (McDonald et al., 2022).

dLMIs also affect the balance of power between employers and job seekers. Following Ajunwa and Greene's (2019) concept of *platform authoritarianism*, these digital tools contribute to information and power asymmetries by restricting worker actions and generating technological affordances for employers. This is most apparent among the curator dLMIs, which are designed to gather and evaluate information about, for example, the criminality (Uggen et al., 2014) or credit worthiness (Kiviat, 2019) of job candidates. A deeper analysis reveals dLMI design features that are often constraining for workers. As noted earlier, structured data fields of AHPs require that applicants respond to specific prompts and denote their competencies in limited ways. By contrast, employers have a great deal of influence over the design of AHP systems, allowing them construct prompts and fields to enhance alignment with their existing



FIGURE 1 HR regional conference promotional material, Atlanta 2014 (left) and 2015 (right).

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personnel structures. Consequently, AHPs help to fragment job seekers into fungible human capital, "discrete bundles of skills and dispositions" (Ajunwa & Greene, 2019, p. 80). Furthermore, dLMI tools and practices are performative (Callon, 1998; MacKenzie & Millo, 2003) in that they establish a new norms and guidelines to which workers must adhere. Establishing an online presence is a near requirement in many fields: contract workers must interface with a platform like UpWork, whereas professional service workers need to have a LinkedIn profile. And engagement is not enough; workers are expected to adhere to accepted forms of online presentation or else face restricted employment opportunities (McDonald et al., 2022).

4.3 | Equity

According to neo-classical economic theorizing, inequality originates largely in markets. That is to say, "the market" sets labor prices which companies must meet to staff their organizations. Major changes in unemployment or in the distribution of wages are due to shifts in the supply and demand for specific skills. For example, skill-biased technological change theory suggests that the massive increase in wage inequality experienced during the last four decades is largely due to rising premiums for computing skills (Autor et al., 2008; Bound & Johnson, 1992). These accounts ignore the crucial role that organizations play in reproducing social inequality as part of hiring and pay setting practices (Tomaskovic-Devey & Avent-Holt, 2019). Segmented labor market theories (Sorenson & Kalleberg, 1979) draw attention to how workers who are employed in different sectors or industries or occupations tend to have different opportunities. In this way, the opportunities of workers are shaped by specific organizational features and conditions, such as employment in the public or private sectors (Wilson & Roscigno, 2016), access to internal versus external labor markets (Althauser, 1989), and engagement in permanent versus temporary contract work (Pedulla, 2020).

The expanded role of dLMIs gives us another way to theorize labor force segmentation, most clearly seen by the ways that organizations use dLMIs to connect with potential job candidates. Organizations advertise different jobs on different platforms (McDonald et al., 2019). Mass posting websites are preferred for jobs that are general in skill and low in wages. Jobs with greater skill specificity and higher wages are also broadly advertised via mass posting websites, but HR recruiters also use dLMIs (especially LinkedIn) to identify "passive" job candidates—individuals who are not looking for work—and encourage them to apply. These bifurcated strategies for employee recruitment contribute to a winner-take-all market (Frank & Cook, 1996). Some workers remain mired in a heavily competitive "black hole" market barricaded by mass posting sites, AHP, and ATS (McDonald et al., 2019). The affordances embedded in these new technologies promote a fragmented rather than holistic view of workers' skills (Gershon, 2017), presenting major challenges for job seekers attempting to convey a complex or alternative set of abilities or experiences (Sharone, 2017). By contrast, a small segment of the professional workforce—those individuals with ideal skills and experiences—tends to be actively recruited for job openings through dLMI comminglers that make those ideal signals apparent (McDonald et al., 2019). All of this suggests that dLMI proliferation contributes to a mix of distinct employment barriers and opportunities.

The proliferation of dLMIs is also consequential for theorizing about how organizational actors evaluate workers. Evaluators often favor socially similar individuals to reduce uncertainty when hiring and promoting employees, which can result in the "homosocial reproduction" of demographically homogenous workforces and leadership teams (Kanter, 1977). More recent research reveals the importance of cultural signaling as part of the evaluation process. Hiring agents highly value cultural similarity between themselves and job candidates, seeking out individuals whose cultural activities and backgrounds align with their own (Rivera, 2012). These similarities help to establish an emotional connection and a sense of personal chemistry between hiring agent and job candidate (Rivera, 2020; Sharone, 2013).

Previous research on hiring evaluations has focused almost exclusively on the interview process, but organizational actors are using dLMIs to evaluate job candidates long before they are invited for interviews. Survey data suggests that 70% of employers use dLMIs to evaluate or cybervet potential job candidates (CareerBuilder, 2018).

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HR staff typically seek out cultural signals that can be used to infer something about the character of an individual (McDonald et al., 2022). Digital LMIs provide ready access to more types of information than in the past, and notably to candid information such as photos, blog posts, and Facebook updates not intended for hiring evaluation. In this way, dLMIs generate new affordances for hiring agents, creating opportunities to incorporate a broader array of cultural signals into the evaluation process. For example, HR staff say that they search job candidates' social media profiles for indicators of valued extracurricular activities (like skiing; Zide et al., 2014). Hiring agents also use cybervetting to enhance "cultural fit" between candidates and the organization, such as seeking out volunteering experiences to match an organization that values community engagement (McDonald et al., 2022).

More than simply assessing cultural content, cybervetting is a form of moral boundary work. When hiring agents review credit scores as part of the hiring screens, they engage in moral storytelling that allows them to infer a person's moral character based on their credit report (Kiviat, 2019). Cybervetting operates in a similar way, as HR staff might infer moral character based on a photo of a person at a party holding a red Solo brand cup (McDonald et al., 2022). These inferences delineate boundaries between individuals who are morally deserving of employment and those who are not (Fourcade & Healy, 2017). Determinations of moral worth are deeply embedded in a broader set of cultural and cognitive schema which can lead to discriminatory hiring. Activities considered to have considerable moral worth (e.g., skiing, camping, and hiking) tend to be those that are associated with advantaged social groups (white, masculine, and upper class). Likewise, signals of alternative lifestyles raise questions about moral deservingness (McDonald et al., 2022).

The current use of dLMIs as part of the hiring process impedes efforts toward workforce diversification. Previous research suggests that efforts to successfully promote diversity require that organizations assign roles and responsibilities to monitor progress toward goals (Kalev et al., 2006). To align diversity goals with outcomes, organizational leaders would need to assign specific roles for assessing how the recruitment of talent from different platforms contributes to diversity targets. Moreover, bias in evaluations of workers is common in situations where there is little transparency or accountability, but much discretion for evaluators (Castilla, 2008). These are the precise conditions for cybervetting, for which there are few clear rules or training materials or consequences (McDonald et al., 2022). Our own research suggests that the most concerning aspects of dLMI usage are less common in organizations that are larger and more bureaucratic, value transparency and equity over efficiency and profit-making, and are subject to field level pressures such as regulatory oversight (McDonald et al., 2022). Future research should clarify these linkages in order to more accurately assess the organizational consequences of dLMI use.

5 | CONCLUSIONS

In the roughly 25 years since use of the Internet and World Wide Web first became commonplace within the US, the number dLMIs has exploded. Although they are diverse in size, scope, and ownership, these tools all share one or both of two overarching affordances: they connect labor market actors to one another and they facilitate the curation of information about them. Employer organizations have embraced dLMIs (Ajunwa & Greene, 2019; Society for Human Resource Management, 2016; Srnicek, 2017), and, consequently, labor market search and screening interactions have largely moved online.

This transition has had complex and often contradictory outcomes for organizations. Digital LMIs have been touted as tools by which employers can influence the hiring process and make it more efficient and effective. Indeed, while prior workplace technologies enabled employers to pursue Frederick Taylor's quest for the "one best way" to do a job, dLMIs promise to help them find the "one best employee" to fill an open position. They have rid the hiring process of cumbersome paperwork, enabled hiring agents to advertise jobs more widely and easily than ever before, and facilitated the use of information about job seekers via automated search and screening tools. They have also provided new sources and types of information: in addition to assessing skills and credentials, employers can now use social media to examine job candidates' personal activities, appearances, and unguarded communications, allowing

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them to evaluate individuals' riskiness, moral worth, and cultural fit. Further, organizations can use dLMIs to influence hiring processes by automatically screening out some interactions and standardizing the information exchanged in others, whether to enforce their own local norms or larger institutional rules.

And yet, dLMIs also pose threats and create inefficiencies for organizations. Widespread internet-based job advertising creates application deluges. Boolean and algorithmic searches miss qualified job candidates. The digital quest for the "one best employee" can become a trap, lengthening vacancies and devouring organizational resources. While dLMIs are most limiting for job seekers (Sharone, 2013), their interfaces and built-in rules constrain organizational actions as well. This may occur without organizational actors' awareness, as when hiring agents who wish to increase employee diversity unwittingly choose dLMIs that wind up reducing it. Digital LMIs may also encourage organizations to pursue hiring practices that reduce their public legitimacy by violating widely shared norms, for instance by accessing information about job candidates which most of the latter consider to be private (Stoughton et al., 2015).

Organizations' use of dLMIs also has consequences beyond their own boundaries. In the early days of web-based hiring, digital optimists asserted that online connectors would reduce market friction, with positive effects such as shortened unemployment times, and that digital curators would give employers more access to information about job seeker skills, making ascribed identities less salient and thus reducing discrimination (Freeman, 2002; Nakamura et al., 2009). While dLMIs do reduce some market frictions, they create others—and have also made ascribed identities more visible. Furthermore, the algorithmic sorting and ranking schemes embedded within dLMIs help to legitimate potentially biased evaluations of labor market actors (Fourcade & Healy, 2017). Digital LMIs may also be altering the labor market in other unforeseen ways. For instance, it is unclear whether organizations lose legitimacy by tapping into job candidates' "private" social media information, or whether this common practice is changing larger norms regarding personal/public boundaries and the types of information that employers can rightfully access. As Barley (2020, p. 26) has noted, "there is only one certainty about technological change: You almost never get *only* what you expect and sometimes you do not even get that. However, something usually happens." To understand what that something is, how it is unfolding, and what the ultimate consequences are will require further study into the organizationally situated affordances and uses of dLMIs.

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CONFLICT OF INTEREST

The authors have no conflict of interest.

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REFERENCES

- Ajunwa, I., & Greene, D. (2019). Platforms at work: Automated hiring platforms and other new intermediaries in the organization of work. Research in the Sociology of Work, 33, 61–91.
- Althauser, R. P. (1989). Internal labor markets. Annual Review of Sociology, 15(1), 143–161. https://doi.org/10.1146/annurev. so.15.080189.001043
- Autor, D. H. (2001). Wiring the labor market. The Journal of Economic Perspectives, 15(1), 25–40. https://doi.org/10.1257/jep.15.1.25
- Autor, D. H. (2009). Studies of labor market intermediation: An introduction. In D. H. Autor (Ed.), Studies of labor market intermediation (pp. 1–23). University of Chicago Press.

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- Autor, D. H., Katz, L. F., & Kearney, M. S. (2008). Trends in US wage inequality: Revising the revisionists. The Review of Economics and Statistics, 90(2), 300–323. https://doi.org/10.1162/rest.90.2.300
- Autor, D. H., Levy, F., & Murnane, R. J. (2003). The skill content of recent technological change: An empirical exploration. Quarterly Journal of Economics, 118(4), 1279–1333. https://doi.org/10.1162/003355303322552801
- Barley, S. R. (1986). Technology as an occasion for structuring: Evidence from observations of CT scanners and the social order of radiology departments. Administrative Science Quarterly, 31(1), 78–108. https://doi.org/10.2307/2392767
 Barley, S. R. (2020). Work and technological change. Oxford University Press.
- Bartley, T., Soener, M., & Gershenson, C. (2019). Power at a distance: Organizational power across boundaries. Sociology Compass, 13(10), e12737. https://doi.org/10.1111/soc4.12737
- Benner, C., Leete, L., & Pastor, M. (2007). Staircases or treadmills?: Labor market intermediaries and economic opportunity in a changing economy. Russell Sage Foundation.
- Bianchi, A. J., Kang, S. M., & Stewart, D. (2010). The organizational selection of status characteristics: Status evaluations in an open source community. Organization Science, 23(2), 341–354. https://doi.org/10.1287/orsc.1100.0580
- Bonet, R., Cappelli, P., & Hamori, M. (2013). Labor market intermediaries and the new paradigm for human resources. The Academy of Management Annals, 7(1), 341–392. https://doi.org/10.5465/19416520.2013.774213
- Bound, J., & Johnson, G. (1992). Changes in the structure of wages in the 1980's: An evaluation of alternative explanations. The American Economic Review, 82(3), 371–392.
- Braverman, H. (1974). Labor and monopoly capital: The degradation of work in the twentieth century. NYU Press.
- Brencic, V., & Norris, J. B. (2009). Employers' online search: An empirical analysis. *Industrial Relations*, 48(4), 684–709. https:// doi.org/10.1111/j.1468-232x.2009.00581.x
- Burke, M., & Kraut, R. (2013). Using Facebook after losing a job: Differential benefits of strong and weak ties. In Proceedings of the 2013 Conference on Computer Supported Cooperative Work (pp. 1419–1430). http://dl.acm.org/citation. cfm?id=2441936
- Callon, M. (Ed.) (1998). The laws of the markets. Blackwell Publishers.
- Cappelli, P. (2001). Making the most of on-line recruiting. Harvard Business Review, 79(3), 139-148.
- CareerBuilder. (2018). More than half of employers have found content on social media that caused them NOT to hire a candidate, according to recent CareerBuilder survey. http://press.careerbuilder.com/2018-08-09-More-Than-Half-of-Employers-Have-Found-Content-on-Social-Media-That-Caused-Them-NOT-to-Hire-a-Candidate-According-to-Re-cent-CareerBuilder-Survey
- Carr, C. T. (2016). An uncertainty reduction approach to applicant information-seeking in social media: Effects on attributions and hiring. In R. N. Landers & G. B. Schmidt (Eds.), Social media in employee selection and recruitment: Theory, practice, and current challenges (pp. 59–78). Springer.
- Castilla, E. J. (2008). Gender, race, and meritocracy in organizational careers. American Journal of Sociology, 113(6), 1479–1526. https://doi.org/10.5465/ambpp.2005.18778668
- Chen, W., & McDonald, S. (2015). Do networked workers have more control? The implications of teamwork, telework, ICTs, and social capital for job decision latitude. *American Behavioral Scientist*, 59(4), 492–507. https://doi. org/10.1177/0002764214556808
- Coverdill, J. E., & Finlay, W. (2017). High tech and high touch: Headhunting, technology, and economic transformation. Cornell University Press.
- Cristea, I. C., & Leonardi, P. M. (2019). Get noticed and die trying: Signals, sacrifice, and the production of face time in distributed work. Organization Science, 30(3), 552–572. https://doi.org/10.1287/orsc.2018.1265
- DiMaggio, P. J., & Powell, W. W. (1983). The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields. American Sociological Review, 48(2), 147–160. https://doi.org/10.2307/2095101
- Finlay, W., & Coverdill, J. E. (2007). Headhunters: Matchmaking in the labor market. Cornell University Press.
- Fountain, C. M. (2005). Finding a job in the Internet age. Social Forces, 83(3), 1235–1262. https://doi.org/10.1353/ sof.2005.0030
- Fourcade, M., & Healy, K. (2017). Seeing like a market. Socio-Economic Review, 15(1), 9-29.
- Frank, R. H., & Cook, P. J. (1996). The winner-take-all society: Why the few at the top get so much more than the rest of us. Penguin Books.
- Freeman, R. B. (2002). The labour market in the new information economy. Oxford Review of Economic Policy, 18(3), 288–305. https://doi.org/10.1093/oxrep/18.3.288
- Gershon, I. (2017). Down and out in the new economy: How people find (or don't find) work today. University of Chicago Press.
- Glavin, P., Bierman, A., & Schieman, S. (2021). Über-alienated: Powerless and alone in the gig economy. Work and Occupations, 48(4), 399–431. https://doi.org/10.1177/07308884211024711
- Hallett, T., & Hawbaker, A. (2021). The case for an inhabited institutionalism in organizational research: Interaction, coupling, and change reconsidered. *Theory and Society*, 50(1), 1–32. https://doi.org/10.1007/s11186-020-09412-2
- Hallett, T., & Ventresca, M. J. (2006). Inhabited institutions: Social interactions and organizational forms in Gouldner's patterns of industrial bureaucracy. *Theory and Society*, 35, 213–236. https://doi.org/10.1007/s11186-006-9003-z

Hammonds, K. H. (2005). Why we hate HR. *FastCompany.Com*. http://www.fastcompany.com/53319/why-we-hate-hr Hanley, C. (2014). Putting the bias in skill-biased technological change? A relational perspective on white-collar automation at

general electric. American Behavioral Scientist, 58(3), 400-415. https://doi.org/10.1177/0002764213503339

Harrison, B., & Bluestone, B. (1990). The great U-turn: Corporate restructuring and the polarizing of America. Basic Books.

Haveman, H. A., & Wetts, R. (2019a). Contemporary organizational theory: The demographic, relational, and cultural perspectives. Sociology Compass, 13(3), e12664. https://doi.org/10.1111/soc4.12664

- Haveman, H. A., & Wetts, R. (2019b). Organizational theory: From classical sociology to the 1970s. Sociology Compass, 13(3), e12627. https://doi.org/10.1111/soc4.12627
- Hoek, J., O'Kane, P., & McCracken, M. (2016). Publishing personal information online: How employers' access, observe and utilise social networking sites within selection procedures. *Personnel Review*, 45(1), 67–83. https://doi.org/10.1108/ pr-05-2014-0099
- Hutchby, I. (2001). Technologies, texts and affordances. Sociology, 35(2), 441–456. https://doi.org/10.1177/s00380385010 00219

Jackall, R. (1988). Moral mazes. Oxford University Press.

- Kalev, A., Dobbin, F., & Kelly, E. (2006). Best practices or best Guesses? Assessing the efficacy of corporate affirmative action and diversity policies. American Sociological Review, 71(4), 589–617. https://doi.org/10.1177/000312240607100404
- Kalleberg, A. L. (2009). Precarious work, insecure workers: Employment relations in transition. American Sociological Review, 74(1), 1–22. https://doi.org/10.1177/000312240907400101
- Kalleberg, A. L. (2011). Good jobs, bad jobs: The rise of polarized and precarious employment systems in the United States, 1970s-2000s. Russell Sage Foundation.
- Kanter, R. M. (1977). Men and women of the corporation (Vol. 5049). Basic Books.
- Kiviat, B. (2019). The art of deciding with data: Evidence from how employers translate credit reports into hiring decisions. Socio-Economic Review, 17(2), 283–309.
- Leonardi, P. M. (2013). When does technology use enable network change in organizations? A comparative study of feature use and shared affordances. MIS Quarterly, 37(3), 749–775. https://doi.org/10.25300/misq/2013/37.3.04
- Leonardi, P. M., & Barley, S. R. (2008). Materiality and change: Challenges to building better theory about technology and organizing. Information and Organization, 18(3), 159–176. https://doi.org/10.1016/j.infoandorg.2008.03.001
- MacKenzie, D., & Millo, Y. (2003). Constructing a market, performing theory: The historical sociology of a financial derivatives exchange. American Journal of Sociology, 109(1), 107–145. https://doi.org/10.1086/374404
- McDonald, S., Damarin, A. K., Lawhorne, J., & Wilcox, A. (2019). Black holes and purple squirrels: A tale of two online labor markets. *Research in the Sociology of Work*, 33, 93–120.
- McDonald, S., Damarin, A. K., McQueen, H., & Grether, S. T. (2022). The hunt for red flags: Cybervetting as morally performative practice. Socio-Economic Review, 20(3), 915–936. https://doi.org/10.1093/ser/mwab002
- McDonnell, T. E. (2010). Cultural objects as objects: Materiality, urban space, and the interpretation of AIDS campaigns in Accra, Ghana. American Journal of Sociology, 115(6), 1800–1852. https://doi.org/10.1086/651577
- Metiu, A. (2006). Owning the code: Status closure in distributed groups. Organization Science, 17(4), 418–435. https://doi. org/10.1287/orsc.1060.0195
- Meyer, J. W., & Rowan, B. (1977). Institutionalized organizations: Formal structure as myth and ceremony. American Journal of Sociology, 83(2), 340–363. https://doi.org/10.1086/226550
- Nakamura, A. O., Shaw, K. L., Freeman, R. B., Nakamura, E., & Pyman, A. (2009). Jobs online. In D. H. Autor (Ed.), *Studies of labor market intermediation* (pp. 27–65). University of Chicago Press.
- Niles, S., & Hanson, S. (2003). The geographies of online job search: Preliminary findings from Worcester, MA. Environment and Planning A, 35(7), 1223–1243. https://doi.org/10.1068/a35253
- Orlikowski, W. J. (2000). Using technology and constituting structures: A practice lens for studying technology in organizations. Organization Science, 11(4), 404–428. https://doi.org/10.1287/orsc.11.4.404.14600
- Orlikowski, W. J. (2007). Sociomaterial practices: Exploring technology at work. Organization Studies, 28(9), 1435–1448. https://doi.org/10.1177/0170840607081138
- Pedulla, D. (2020). Making the cut: Hiring decisions, bias, and the consequences of nonstandard, mismatched, and precarious employment. Princeton University Press.
- Pfeffer, J., & Salancik, G. R. (1978). The external control of organizations: A resource dependence perspective. Stanford University Press.
- Podolny, J. M., & Page, K. L. (1998). Network forms of organization. Annual Review of Sociology, 24(1), 57–76. https://doi. org/10.1146/annurev.soc.24.1.57
- Rahman, H. A., & Valentine, M. A. (2021). How managers maintain control through collaborative repair: Evidence from platform-mediated "Gigs". Organization Science, 32(5), 1300–1326. https://doi.org/10.1287/orsc.2021.1428
- Rivera, L. A. (2012). Hiring as cultural matching: The case of elite professional service firms. American Sociological Review, 77(6), 999–1022. https://doi.org/10.1177/0003122412463213

WILEY

- Rivera, L. A. (2020). Employer decision making. Annual Review of Sociology, 46(1), 215-232. https://doi.org/10.1146/ annurev-soc-121919-054633
- Roscigno, V. J. (2011). Power, revisited. Social Forces, 90(2), 349-374. https://doi.org/10.1093/sf/sor034
- Rubin, B. A. (2012). Shifting social contracts and the sociological imagination. Social Forces, 91(2), 327–346. https://doi. org/10.1093/sf/sos122
- Saifer, A., & Dacin, M. T. (2022). Data and organization studies: Aesthetics, emotions, discourse and our everyday encounters with data. Organization Studies, 43(4), 623–636. https://doi.org/10.1177/01708406211006250
- Sapient Insights Group. (2021). 24th annual 2021/2022 HR systems survey key findings. https://sapientinsights.com/ research/
- Schor, J. B. (2008). The overworked American: The unexpected decline of leisure. Basic Books.
- Schor, J. B., & Vallas, S. P. (2021). The sharing economy: Rhetoric and reality. Annual Review of Sociology, 47(1), 369–389. https://doi.org/10.1146/annurev-soc-082620-031411
- Schwartz, D. (2018). Embedded in the crowd: Creative freelancers, crowdsourced work, and occupational community. Work and Occupations, 45(3), 247–282. https://doi.org/10.1177/0730888418762263
- Schwarzkopf, S. (2020). Sacred excess: Organizational ignorance in an age of toxic data. Organization Studies, 41(2), 197–217. https://doi.org/10.1177/0170840618815527
- Scott, S., & Orlikowski, W. (2022). The digital undertow: How the corollary effects of digital transformation affect industry standards. Information Systems Research, 33(1), 311–336. https://doi.org/10.1287/isre.2021.1056
- Sharone, O. (2013). Flawed system/flawed self: Job searching and unemployment experiences. University of Chicago Press.
- Sharone, O. (2017). LinkedIn or LinkedOut? How social networking sites are reshaping the labor market. *Research in the Sociology of Work*, 30, 1–31.
- Shestakofsky, B. (2017). Working algorithms: Software automation and the future of work. Work and Occupations, 44(4), 376-423. https://doi.org/10.1177/0730888417726119
- Society for Human Resource Management. (2016). SHRM survey findings: Using social media for talent acquisitionrecruitment and screening. https://www.shrm.org/hr-today/trends-and-forecasting/research-and-surveys/Documents/SHRM-Social-Media-Recruiting-Screening-2015.pdf
- Sorenson, A. B., & Kalleberg, A. L. (1979). The sociology of labor markets. Annual Review of Sociology, 5(1), 351–379. https:// doi.org/10.1146/annurev.so.05.080179.002031
- Srnicek, N. (2017). Platform capitalism. John Wiley & Sons.
- Stoughton, J. W., Thompson, L. F., & Meade, A. W. (2015). Examining applicant reactions to the use of social networking websites in pre-employment screening. *Journal of Business and Psychology*, 30(1), 73–88. https://doi.org/10.1007/ s10869-013-9333-6
- Tenner, E. (1996). Why things bite back: Technology and the revenge of unintended consequences. Vintage.
- Tomaskovic-Devey, D., & Avent-Holt, D. (2019). Relational inequalities: An organizational approach. Oxford University Press.
- Uggen, C., Vuolo, M., Lageson, S., Ruhland, E., & Whitham, H. K. (2014). The edge of stigma: An experimental audit of the effects of low-level criminal records on employment. *Criminology*, 52(4), 627–654. https://doi.org/10.1111/1745-9125.12051
- Vallas, S. (1998). Manufacturing knowledge: Technology, culture, and social inequality at work. Social Science Computer Review, 16(4), 353–369. https://doi.org/10.1177/089443939801600402
- Vallas, S., & Schor, J. B. (2020). What do platforms do? Understanding the gig economy. Annual Review of Sociology, 46(1), 273–294. https://doi.org/10.1146/annurev-soc-121919-054857
- Weber, M. (1922). Economy and society (Vol. 1). University of California Press.
- Wilcox, A., Damarin, A. K., & McDonald, S. (2022). Is cybervetting valuable? Industrial and Organizational Psychology, 15(3), 315–333. https://doi.org/10.1017/iop.2022.28
- Wilson, G., & Roscigno, V. J. (2016). Neo-liberal reform, the public sector and Black-White inequality. Sociology Compass, 10(12), 1141–1149. https://doi.org/10.1111/soc4.12439
- Wood, A. J., Graham, M., Lehdonvirta, V., & Hjorth, I. (2019). Good gig, bad gig: Autonomy and algorithmic control in the global gig economy. Work, Employment & Society, 33(1), 56–75. https://doi.org/10.1177/0950017018785616
- Wood, A. J., & Lehdonvirta, V. (2021). Antagonism beyond employment: How the 'subordinated agency' of labour platforms generates conflict in the remote gig economy. *Socio-Economic Review*, 19(4), 1369–1396. https://doi.org/10.1093/ser/ mwab016
- Zaloom, C. (2003). Ambiguous numbers: Trading technologies and interpretation in financial markets. American Ethnologist, 30(2), 258–272. https://doi.org/10.1525/ae.2003.30.2.258
- Zide, J., Elman, B., & Shahani-Denning, C. (2014). LinkedIn and recruitment: How profiles differ across occupations. Employee Relations, 36(5), 583–604. https://doi.org/10.1108/er-07-2013-0086
- Zuckerman, E. W. (1999). The categorical imperative: Securities analysts and the illegitimacy discount. American Journal of Sociology, 104(5), 1398–1438. https://doi.org/10.1086/210178

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