Diversity and future of work: inequality abound or opportunities for all?

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Abstract

Purpose – The purpose of this paper is to examine new directions for diversity scholarship in the context of future of work or advanced technological shifts that are impacting organizations and society. It proposes that both new opportunities and challenges are likely to emerge for individuals and offers considerations around ethics, inequalities and global dimensions as relevant conversations within this domain.

Design/methodology/approach – The paper provides an overview of new technological advances in the domains of artificial intelligence, automation and the gig economy. It then layers considerations related to diversity within this context, focusing on issues of relevance to mainstream, critical and transnational traditions within diversity scholarship.

Findings – It is likely that technological shifts will impact several domains of diversity scholarship including how we define “diversity,” and the value and appropriateness of using advanced technologies to replace certain jobs that are predominantly held by underrepresented groups. Furthermore, the paper outlines ways in which bias, ethical considerations and emergent digital inequalities will become important conversations within diversity research in the context of future of work.

Originality/value – This paper brings together diversity scholarship and future of work conversations in assessing the ways such research and trends will intersect and provides insights about future directions that diversity-focused research should take to address and understand the consequences of rapid technological advances for inclusion.

Keywords Ethics, Diversity, Bias, Future of work, Digital inequality, Post-humanism

Paper type Conceptual paper

Technological advances have taken shape at an exponential rate over the last decade, radically altering how we process and experience the social world and engage in work. Automation, one of the important outcomes of technological change, has transformed the dynamics of manufacturing and service jobs dramatically over the course of the last century, and today, it continues to impact all industries in new and sophisticated ways (Noble, 2017). The growth of information technology coupled with explosive growth in artificial intelligence (AI), 3D-printing, virtual and augmented reality, machine learning and other advances has opened up new possibilities to re-imagine work, disrupting older ways of organizing and completing jobs. Recently, Google Duplex beats the Turing test: an AI-assistant made reservations and scheduled haircut appointments without tipping off the humans on the other end of the call that they were speaking with a machine (https://ai.googleblog.com/2018/05/duplex-ai-system-for-natural-conversation.html). This event marked a leap in natural language learning ability and is part of a bigger turning point as AI applications rapidly develop skills once only associated with human. Alongside these technological advances, a new type of economy has emerged based on largely on technology platform companies, such as Uber, TaskRabbit and Upwork. This new economy, often referred to as the gig economy, is based on short-term, temporary and contract-based jobs as well as on-demand work. The platform companies providing such employment often claim to provide flexibility and autonomy to millions of workers around the world.

Yet, in the midst of these new technologies, there has also been growing interest and concern around their ethical implications as well as their long-term impact on the workforce (West, 2018). These concerns have opened up conversations about a jobless future as humans
are no longer needed for particular types of jobs (Ford, 2015), whereas the emergence of an ultra-low wage, precarious workforce seems inevitable (Kessler, 2018; Standing, 2011). Scholars have noted that the deployment of new technologies has been used to “automate inequality” in public services and engage in policing of poor communities, particularly those of color (Eubanks, 2018). Thus, technological shifts have the propensity to both create new jobs and occupations, such as professional drone fliers, and eliminate sets of jobs, such as truck drivers being replaced by autonomous vehicles. Economists theorize two sets of potential labor outcomes related to these technologies: substitution, whereby entire jobs can be eliminated, or complementarity, whereby opportunities are created for people to engage in new kinds of tasks and jobs (Autor, 2015).

Further complications in regard to these technological shifts are concurrent demographic changes and intersect with ongoing concerns about the continued precarity of global migrant laborers, predominantly from the Global South and female, who face forced movement, harassment, denial of rights, poor work conditions and low wages (Ferguson and McNally, 2015). In the USA and globally, the workforce is ever increasing in diversity in terms of race and ethnicity as immigration grows and as more women become employed formally. For example, the USA will become “minority white” by the year 2045 with the tipping point for those under 18 years by the year 2020 (Frey, 2018). Thus, by next year, minority post-millennials will outnumber whites. These shifts will continue, creating new opportunities and challenges for organizations that are still, predominantly, male and white in leadership positions. In fact, only 3.2 percent or 16 of Fortune 500 companies release data about the gender and race of their employees (Donnelly, 2017) and of those that do, 72 percent have white and males in leadership positions (Jones, 2017). This fact means that, “compared to the demographics of the overall employed workforce, Asian and white workers at these 16 companies are overrepresented in senior leadership by 15 and 10 percentage points, respectively. Latino/a and black executives are underrepresented by 9 and 13 percentage points” (Jones, 2017). The lack of growth and leadership opportunities for women and minorities has been noted by executive themselves who state that their places of work do not invest enough in leadership development for millennials, women or minorities.

Specifically, Buckley and Bachman (2017) report that of the 10,400 executives surveyed as part of a Deloitte Global Human Capital Trends survey, 45 percent stated there are weak program capabilities for supporting millennial leaders, 43 percent stated there are weak program capabilities for women leaders and 31 percent stated the same for minority leaders. Thus, in the context of future of work and an ever increasingly diverse workforce, what new considerations and conversations on diversity should take shape? To examine these issues, I first examine the ways in which diversity scholarship as a field has taken shape and then move onto discuss new challenges it will face given the technological changes in the midst of demographic ones. To accomplish this, I provide a brief overview of three broad categories of diversity research (Ozkazanc-Pan, 2019), namely, mainstream work, critical work and transnational work, and their general areas of focus. Mainstream diversity work generally focuses on identifying differences between different types of employees by gender, race or culture among a variety of dimensions such as networks (Forret and Dougherty, 2004), job demands and support (Fila et al., 2017), job satisfaction (Hersch and Xiao, 2016), work group and processes (Ely and Thomas, 2001) and organizational experiences (Bell and Nkomo, 2003; Powell, 2018). These approaches generally adopt an objectivist stance and provide insights about what organizations could do to achieve better diversity management in different contexts (see Nishii and Özbilgin, 2007). In contrast, critical work in the diversity field asks markedly different questions (see Lorbiecki and Jack, 2000) based on epistemic concerns derived from critical philosophical and intellectual traditions. Such scholarship focuses on issues such as intersectional oppressions (Rodriguez et al., 2016; Holvino, 2010) and experiences (Dennissen et al., 2018; Özbilgin et al., 2011), as well as identity work
(Holck et al., 2016) and discrimination (Bell et al., 2018; Romani et al., 2019) for individuals navigating heteronormative norms (Ozturk and Tatli, 2016) and inequalities (Greene and Kirton, 2015; Tomaskovic-Devey et al., 2017; Thurlow et al., 2006). Finally, transnational approaches are derived from a mobility ontology and examine the ways in diversity travels globally as a concept (Calás et al., 2009) and the emergence of new subjectivities in transnational contexts (Calás et al., 2013; Ozkazanc-Pan, 2019; Ozkazanc-Pan and Calás, 2015).

Rather than an exhaustive review on diversity scholarship, the goal is to present new directions that contribute to each of these three broad categories of research within the domain. In doing so, the paper aims to expand what constitutes diversity scholarship in the context of future of work, deriving the critique from a sustained focus on ontological, epistemological and methodological concerns. To accomplish, I expand upon three areas at the intersections of diversity and future of work: new subjects at work, bias and inequalities. Following this, I discuss new opportunities and directions for diversity scholarship including focus on the relevance of embodied ethics and post-humanist considerations.

New subjects at work: on humans and robots
Donna Haraway’s (1985, 1990/2013) work at the intersections of feminism and technology, famously considered through her work on the gendered cyborg, outlined powerful insights about the interconnected ways in which the material and technological intertwine. The cyborg at the time of Haraway’s writing in the late 1970s, early 1980s was conceptualized as half-human, half-machine – a hybrid organism whose emergence would call into question the ontological and epistemological basis of subjects and subjectivities. For Haraway, such emergences in the form of cyborgs allowed consideration for the gendered ways in which technology and technological “progress” are conceptualized and how they materialize. More broadly, her work considered the emergence of simians, women and cyborgs as three “creatures” whose manifestation raised and continues to raise important epistemological questions about the nature of subjects and their place in the world.

Written at a time of cultural wars and growing tensions around the value-free and neutrality-claims of science, her work was purposeful in questioning the very tenets of scientific knowledge claims. By using simian, women and cyborgs as subjects, Haraway aimed to call into question the nature vs culture dichotomy, which, at the time, was a pressing debate and conversation in both feminist streams and mainstream science. The introduction of the cyborg opened up space to debate positions that were deemed mutually exclusive. In fact, Haraway’s cyborg emerged in a post-gender world, a world in which abstract individuation had been fulfilled, reworking the nature/culture “divide.” In the cyborg world, what constitutes nature is not only questioned, but abandoned: in this world, there is no origin story, a shared human(ity) or any notions of identity that make sense.

In many ways, the writing espoused by Haraway calls into question the untenable positions advanced by different branches of sciences and the ongoing debates around objective knowledge vs subjective claims. For Haraway (1985), normal science claims present a view of the world from “nowhere” yet speak about everywhere/everyone/everything. To disrupt these juxtapositions and show both their epistemological roots, her adoption of the cyborg concept aims to bring together seemingly opposing worldviews and ontologies at a time when paradigmatic divisions between the sciences became politicized positions. She later expanded upon this concept through her use of “situated knowledge” or that approach to science that eschews both objectivism and relativism in a search for an emergent scientific practice, a feminist sensibility in relation to objectivity (Haraway, 1988). As she stated, the question is, “how to have simultaneously an account of radical historical contingency for all knowledge claims and knowing subjects, a critical practice for recognizing our own ‘semiotic technologies’ for making meanings, and a no-nonsense commitment to faithful accounts of a ‘real’ world, one that can be partially shared and that is friendly to earthwide projects of finite
freedom, adequate material abundance, modest meaning in suffering, and limited happiness” (Haraway, 1988, p. 579).

Prasad (2016, p. 433) suggests that this type of analytics brings about emergent and new ways of writing and thinking, a purposeful and political act of writing differently and even subversively: cyborg writing. The cyborg opens up possibilities for not only new ontologies and epistemologies but also new subjects, considerations around agency and the meaning of work. If this concept is brought to bear upon the expanded changes taking shape via robotics and AI advances, then, in the near future, workplaces can soon expect to be home to robots and AI-assistants as well as human employees. The intersections of humans and non-humans have been the focus of actor-network theory (Latour, 2005) for some time now – yet what is significant and unique about the advances in robotics and AI are the intersecting legal, socio-cultural and ethical considerations.

In this sense, diversity scholarship must now contend with new subjects at work: non-humans capable of decision-making and impacting human–human interactions through their very presence. If workplaces are where humans engage in social interactions and relationships are fostered, then robots and AI-assistants will become new intermediaries impacting these relationships. Researchers must now include non-human elements into their analysis of workplaces inclusive of emergent cultures, norms, practices and organizational policies as they relate to diversity management (Kalev et al., 2006). While policies outlining social interactions and expectations between humans are commonplace in organizations, new policies that outline such guidelines for human/non-human interactions must now be articulated and put in place. The growth of and reliance on robots and AI can foster in a new era of diversity scholarship that aims to understand how different categories of employees beyond the human impact organizational outcomes, experiences and diversity management practices.

Moreover, such a focus can also bring out new theories of what constitutes employees and expand our notion of employee rights as social and legal considerations. As such, when technological advances become commonplace in organizations of various kinds, regulatory bodies will likely need input from stakeholders about the role robots and AI can and should play in professional contexts. These considerations open up opportunities to discuss governance issues including whether an organizational code of ethics related to technology use, specifically in regard to robots and AI, should be in place – much like voluntary codes of conduct adopted by organizations to ensure compliance and safety in supply chains and manufacturing (Logsdon and Wood, 2005). Ultimately, as robots and AI become more sophisticated, there will be growing scrutiny around ethics and their use particularly if they are used as labor substitutes rather than complements. In such cases, humans might petition to keep workplaces “robot free” as they aim to place boundaries on the kinds of work that should and can be undertaken by advanced technologies. These ethical, practical and political considerations will become part of diversity scholarship that aims to understand the role of advanced technologies alongside the challenges and opportunities they bring to workplaces. These points lead to my next consideration and one of the biggest challenges related to future of work changes related to the workplace: the potential that AI will codify existing biases under the guise of data-driven science.

The end of bias?
Research assessing various forms of unconscious and implicit bias (Staats et al., 2015) finds that race (Rachlinski et al., 2008) and gender (Cotter et al., 2001; Glass and Cook, 2016) can impact decisions and available opportunities in organizations. This is particularly relevant in the recruitment and selection process (Beattie and Johnson, 2012) and in promotions (Bono et al., 2017). Specifically, in regard to recruitment and selection, identifying the various network mechanisms that result in the lack of opportunities for minority candidates is a difficult endeavor given the lack of data and ability to compare hires with non-hires

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(Fernandez and Fernandez-Mateo, 2006). Scholars also point out that the lack of information about job leads can produce gender and race effects in terms of opportunities for finding new positions (McDonald et al., 2009). In all, ongoing biases impact organizational experiences and opportunities for various individuals and groups but mitigating or reversing these obstacles can be challenging.

Technological advancements potentially offer solutions to these issues. For example, AirBnb recognized that biases in the recruitment and hiring process were based on the “search for commonalities,” a component of their candidate-job matching algorithm, after researchers pointed out racial bias on their platform (Edelman et al., 2017). Once AirBnb identified the source of the bias through data analytics, they eliminated using this approach in favor of scoresheets to assess job candidates (https://business.linkedin.com/talent-solutions/blog/candidate-experience/2017/how-airbnb-is-working-to-eliminate-bias-from-its-interview-process). Similarly, Unilever has followed a similar approach in getting rid of resumes and instead relying on algorithms to fulfill the hiring process (Gee, 2017). At the same time, various technology platform companies have formed to fill a need in the market: eliminate bias while hiring top candidates, an age old problem that is yet to be solved by humans. Consequently, we are seeing the growth of technological “solutions” to workplace equity concerns particularly around hiring.

Within this space, firms like Mya, HireVue, Pymetrics and ARYA have adopted various forms of AI, machine learning and gamification to enter the hiring space. Each promising unbiased and better results in less time, the growth of such companies will not only provide ample opportunities for research but provide important case studies related to the replacing human decision makers with automation. For example, although long-term implications and legal ramifications of using data analytics to assess candidates are still unknown (see Raub, 2018), this approach to recruitment and selection among other organizational aspects will certainly become of interest to diversity scholars. The use of technology-enabled recruitment, selection, assessment and promotion is going to continue growing in organizations across sectors beyond tech companies. Thus, understanding their potential benefits while also becoming cognizant of their limits will most likely become the domain of diversity scholars and scholarship in the coming decades.

Already, practitioners and researchers have noted that although AI and machine learning hold the promise of furthering diversity efforts by eliminating particular kinds of biases in the recruitment and selection of candidates, they can also end up exacerbating them. Strange (2018) suggests:

HR professionals can leverage job-specific performance data to identify the behavioral preferences that are most conducive to successes in a particular position. Tools that use Artificial Intelligence (AI) and Machine Learning (ML) can match jobs to candidates with the best attributes for the role, enabling greater efficiency by cutting down on valuable time HR specialists spend sifting through resumes and other hiring materials. By focusing on behavioral preferences in the early stages of the screening process, talent tools can automatically flag the candidates with the highest probability for success. More and more companies are creating “ideal” employee profiles to hire against to eliminate bias and help HR professionals find the best-fit candidates. If they are not careful, however, creating these profiles can also lead managers to perpetuate the hiring of the same groups over and over which can hinder a company’s diversity efforts.

On this point, researchers have shown that the quality and inclusiveness of data sets used to train AI algorithms can impact significantly the outcomes, and, in some cases, codifying biases deep into the learning process (Vasconcelos et al., 2018). Scholars have also shown that racialized assumptions in the social world can end up being replicated in the training of algorithms, resulting in the aptly named phenomenon of “racist in the machine” (Garcia, 2016). The use of and reliance upon technologies to address extant human and social problems can be problematic if such dependence ends up replicating inequalities or even creating new forms.
To this end, technologies themselves may be “neutral” but their development and deployment can be anything but. As Hao (2019) suggests, bias can arise if the three stages of AI applications, namely, problem framing, data collection and data preparation, are not carried out in an inclusive and transparent manner subject to challenge and dialogue. Consequently, systems of transparency and accountability must be in place to understand whether and how biases and other forms of exclusion may be exacerbated rather than remediated by reliance on technologies whose development remains opaque. In effect, unchecked use of technologies may end up masking exclusionary practices as meritocracy in the workplace, creating new forms of inequalities that remain invisible until examined and surfaced including those in the digital sphere.

The emergence of new inequalities

One of the biggest threats facing societies and organizations today is the emergence of digital inequalities. While initially, this term was used to describe a lack of access to the internet in developed and developing nations, today’s rapid technological transformation has resulted in new iterations of it. Robinson et al. (2015) suggest that digital inequalities, both in terms of internet access and digital exclusion, surface across several areas, including “life course, gender stratification, racial stratification, economic stratification, and health and health care” (p. 571). Over the course of one’s life, the growing gap in digital literacy and access can compound extant inequalities across gender and race in the labor market. Moreover, gendered norms in the technology fields coupled with gendered content production online can complicate gender equality aspirations. A recent report by Amnesty International has shown that globally, women face harassment, rape threats and abuse online on a daily basis (https://decoders.amnesty.org/projects/troll-patrol). Thus, the online world, Twitter in particular, is not necessarily safe or inclusive for women (and others, such as LGBTQIA+ communities).

Within this context, understanding how technology enables anonymized, toxic masculinities to impact the personal and professional lives of women+ (the plus indicating an inclusive understanding of “women” as beyond the biological) becomes important for diversity scholarship. Moreover, organizational responses to such online abuse need to be documented and researched. Only after widespread condemnation and user backlash, Twitter adopts an anti-sexual harassment and bullying policy (www.reuters.com/article/us-twitter-abuse/twitter-looks-to-toughen-rules-on-online-harassment-abuse-idUSKBN1CN1Y9?utm_campaign=trueAnthem:+Trending+Content&utmc_content=59e827f204d30179e8ed5c39&utmc_medium=trueAnthem&utm_source=twitter). The backlash started when Twitter blocked the account of Rose McGowan after she detailed abuse at the hands of Harvey Weinstein – Twitter claimed she had violated the norms of the online community in singling out a person and did not allow her to post. The irony being that calling out a sexual harasser was considered a violation of community norms despite ongoing threats against women that were not addressed. Most notably Leslie Jones, the Black actress made famous for her role in the Ghostbusters remake, was bullied in a racialized manner on Twitter and found no support in the organization.

Consequently, the racialized norms of online communities and networks can impact the opportunities available to individuals, particularly those from underrepresented groups. At the same, the existing ways in which racial stratifications manifest in organizations and labor markets can become exacerbated through a growing reliance on new technologies. For example, driverless vehicles most notably in the trucking sector are now one of the biggest areas of investments for venture capitalists (Mathur, 2019). Yet the trucking industry is highly gendered and racialized: almost 67 percent of truck drivers in the USA are white males, around 39 percent of the 3.1m CDL certified truck drivers are minorities, whereas only 6 percent are females (www.fleetowner.com/driver-management/demographics-changing-truck-driver-management). In 2014, the average salary for a truck driver was
$42,000. At the same time, shifting demographics has resulted in more white males aging out from the occupation as more minorities enter it. Yet, the entrance of minorities into the profession coincides with the growth of investments in automation. Although such demographic shifts may look good as a sign of growing diversity in the sector, in reality, they mask the growing precarious and low-wage nature of the occupation and the inequalities they bring about for opportunities for new entrants/employees. More importantly, the numbers reflect the fact that African Americans are overrepresented in the trucking industry (Baboolall et al., 2018) and are likely to face severe disadvantages as automation becomes reality.

Consequently, racial inequalities in the context of automation are likely to grow. A recent report by McKinsey found that in considering the existing workforce composition, African Americans are overrepresented in support positions (i.e. assistants, admin support, laborers and service workers), whereas underrepresented in directive positions (i.e. exec and senior officers, managers, professionals, technicians and sales workers) and the technology fields (Baboolall et al., 2018). Layered on top of this existing inequality currently is the growing force of automation in various kinds of jobs and occupations that will disproportionately impact support positions, positions that are already much lower paid at around $32,000 than directive positions, which are paid at around $69,000.

In effect, any scholarship that attends to diversity in the context of future of work must also contextualize the work in relation to ongoing and new forms of inequalities. That is, diversity scholarship must attend to inequalities beyond considerations of differences in identity, organizational experiences or any other workplace metrics. Rather than focusing only on individual and groups in organizations, diversity research must come to grips with the fact that the changing nature of technology will change the opportunities certain groups have in terms of jobs. It is likely that jobs in certain sectors and professions will become increasingly stratified across gender and race as automation and digital inequalities grow. As a result, digital inequalities represent a new dimension to include on any research fostering a diversity lens. In effect, technological transformations must change the ways in which diversity scholarship gets done. It is important to critically assess what kinds of questions related to diversity are being asked and by whom (see Tatli, 2011) and which epistemologies and methodologies can/should guide the field in the future (for an overview, see Shore et al., 2009; Trittin and Schoeneborn, 2017). Diversity scholarship must move beyond its myopic focus on what happens inside organizations and, instead, contextualize the intersections of technology and work within political, socio-cultural and economic spheres as well. Next, I expand upon three possibilities for future research on diversity at the intersections of future of work.

**Future directions for diversity research**

While there are many who are enthusiastic about the potential of future of work changes to bring about new opportunities and greater talent (Morgan, 2014), there are perhaps an equal or greater number of scholars, policymakers and organizational leaders and employees concerned about the consequences of widespread adoption of technologies that have the potential to render occupations and particular jobs obsolete. Evidence suggests decision making with AI help or guided by automation in high-risk situations can lead to worse results than human-alone decisions in similar situations (Mosier et al., 1996; Strauch, 2017). Thus, having more new technologies does not make workplaces or decision making better per se.

To understand the value of technologies and their potential use in work contexts, Bryant and Wolfram-Cox's (2014) post-humanist analytics opens up new spaces for multiple interpretations of organizational change. Rather than looking for cohesion, scholars can examine how individuals interpret new workplaces inhabited by humans and non-humans
and the technological advances being adopted at breakneck speed. Although having industry standards around the use of advanced technologies is important, it is not sufficient given that human–technology interfaces will continue to change in work contexts. How might these interactions and interfaces change the ways in which particular people do particular kinds of work?

By following such post-humanist approach that aims to open up possibilities rather than funnel ideas, organizational approaches (and may be policies) related to diversity and technology can be built from the ground-up, in an inclusive manner. In other words, what constitutes diversity needs reworking in society and, consequently, in the context of organizations. Through a post-humanist framework, we can better reflect the new ontological reality of the beyond-social world in which robots and AI exist, requiring a new kind of epistemic consideration around the nature of humanity and what constitutes human work or human-only work. In such a scenario, diversity work could take shape through the intersection of human and non-human actors rather than a continuation of hackneyed “diversity management” – a neo-liberalized and financialized organizational logic (Ozkazanc-Pan, 2019) and practice that has yet to deliver substantive results toward equity and equality (Barreto et al., 2009; Janssens and Zanoni, 2014; Holck, 2016) as it attempts to make the “business case for diversity” (e.g. Noe et al., 2017).

The conceptualization and practice of diversity in the context of future of work would need to open up space for dialogue and debate about the role, value and appropriateness of certain technologies in the workplace rather than close-down conversations. What new emergent norms and values around human/non-human interactions might emerge in work contexts? In this sense, diversity cannot be a preconceived set of dimensions or something that is in need of management (Ng, 2008). Rather, it must be seen an ongoing accomplishment when potentially new forms of robots and AI come to inhabit those spaces of work traditionally associated with human/embodied labor and emotion. As a consequence, there could be new insights about the ways in which we “humans” value the existing labor and work associated with certain people, such as women or minorities and, then, layer on top of that considerations around the value of work associated with non-human actors. Beyond ethical dimensions, such concerns open up possibilities for re-thinking the equity and equality aims of some diversity scholarship (Strachan et al., 2004) – how do these concerns manifest themselves in a context where technologies supplant particular forms of labor and work?

At the same time, such a stance raises questions about the embodied nature of organizations and corporeal ethics or raise questions about how “our interaction with each other and with the world, might foster ways of organizational life that resist domination and oppression in favour of the enactment of care and respect for difference as it is lived and experienced” (Pullen and Rhodes, 2014, p. 159). Consequently, the juxtaposition of a human body with that of a technologically based machine raises interesting questions and concerns about how embodied organizations and ethics might look like. For Clough et al. (2015), the intersections of “big data” and the social self-represent a new ontological reality, the datalogical, in a post-probabilistic society. Within this context, our reliance on advanced technologies can remake the architecture of our social world, providing new challenges and layers to existing concerns, such as justice and equality. In such a world, what does it mean to be compassionate to a co-worker that is a robot or AI? And how do we redefine the ways in which differences become constituted if the human referents for distinguishing between/among ourselves, such as dimensions of race, gender, class, religion, sexual orientation, etc., become irrelevant as they have no epistemic equivalent in the world of robots and AI? And in what ways do extant inequalities that arise due to the stratification of labor in organizations become mitigated if new forms of difference enter the workplace in the form of non-humans?
To this end, there are some potential answers that can be derived from feminist engagements with human computer interactions (HCI). For example, Bardzell (2010) suggests that feminist work within the HCI field has brought up considerations around the gendered nature of which technologies are developed, how games are designed and user interfaces that replicated particular gender norms. Beyond these considerations, feminist work in HCI has raised the visibility of gender preferences in the development and use of certain technologies, such as to-do lists and productivity applications. By highlighting the processes and practices of the field inclusive of the human–technology interactions they eventually result in, feminist frameworks provide critically assessment of taken-for-granted norms that replicate certain interactions and not others in the world of technology. These critical conversations have resulted in additional HCI research including intersectional approaches to understanding the complex identities of human users (Schlesinger et al., 2017) and considering social justice issues in human–technology interactions (Dombrowski et al., 2016). In all, feminist work in HCI and other related disciplines can provide much-needed insights about how we may want to organize and govern human–robot interactions in workplaces of the future.

As a final consideration, global dimensions of future of work and diversity will likely become increasingly important. Currently, many technology-platforms companies have a global presence and workforce – for example, Upwork allows for employers and contractors to connect despite geographical distances. The global distribution and piecemeal nature of work opportunities are not new given global production networks have been dispersed for decades in terms of manufacturing (Henderson et al., 2002) and have had significant and sometimes negative impact on inclusive global governance (see Levy, 2008). These labor trends come at a time of increased hollowing out of democratic and political institutions or as Brown suggests the economization and financialization of all aspects of life including the growing neoliberalism of governments and states (Brown, 2015). Within this context, the form and location of such precarious work is no longer contained in physical factories in South East Asian countries (Yeung, 2009) and carried out by a largely young, female workforce (Barrientos et al., 2011). Rather, such work will likely become available only to those individuals who have the right technological skills and education (Morrison Paul and Siegel, 2001), and internet access, which at this point is predominantly males across the globe (Robinson et al., 2015). Consequently, digital inequalities will be gendered in the global context and have implications for workforce development and work opportunities across societies – who will continue to benefit from the growing dispersed nature of gig economy work and how might diversity scholars attend to these ongoing shifts in who is doing what kinds of work under globalized neoliberalism?

In all, diversity scholarship must be able to attend to these concerns by vacating its very foundations on concepts that explain, partially, the social and human world in human (istic) terms. Perhaps what is necessary is a post-human approach such that conventional ways of understanding intelligence, assessing skills and capabilities and potential for learning become redefined beyond the privileged human perspective. Here, expanding on the philosophical considerations of post-humanist conversations through feminist scholars, such as Behar (2016), Braidotti (1994, 2006, 2002) and Weeks (2011), provides much-needed direction and nuance to conversations at the intersections of human, non-humans and technology.

On this point, Braidotti (1994) focuses on nomadic subjects as a feminist intervention into male-centric subjectivity derived from postmodern and poststructuralist engagements into epistemology. She suggests, “The utopia, or nonplace, that the poststructuralists pursue, therefore, is a nomadic path that functions according to different rules and designs. I will define this sort of post-human utopia as a political hope for a point of exit from
phallogocentrism; it is the basis for nomadic consciousness. Nomadic thinking is the project that consists in expressing and naming different figurations for this kind of decentered subjectivity” (Braidotti, 1994, pp. 32-33). In this sense, the post-human sensibility arising in the moment of technological disruption must be inhabited by a nomadic subjectivity rather than colonized by the very epistemology of (male-centric) technological determinism. Braidotti’s (2016) nomadic subject provides epistemic disruption to social imaginaries that adopt a teleological and inevitability premise in the context of AI and non-human actors: indeterminacy of subjectivity does not prevent agency. Further to this point, gender relations, power and difference in relation to an ethics-of-nomadic becoming must be the foundation of any conversation on/about the “non-human.” Such a proposition is further expanded upon by the work of Weeks (2011) in her focus on the ways in which work is defined, engaged in and refused.

In the context of technological shift, the kinds of work that will be available for humans (vs non-humans) as well as the value of work associated with human require consideration. Weeks (2011) provides thoughtful insights in this regard through her engagement into gender and the political economy of work. Specifically, her framework provides an examination of the ways work becomes constituted through the exchange of labor and money – in the context of automation, applying Week’s (2011) analysis of work to allow consideration of how extant relations of power and labor exchange might become sedimented in a particular class rather than necessarily democratizing opportunities for work. In fact, existing power relations that make possible a system of work and create particular gendered, political subjects may shift as technological changes take form. As such, the shifts in the economy that take shape due to new technologies may create socio-cultural and political disruptions beyond remaking the social contract of work. The result is a continuation of gendered, class relations in the domain of work under the auspices of choice and agency in the gig economy.

As an interesting counterpoint, Behar (2016) notes that object-oriented ontology debunks the position that humans are privileged subjects but, rather, and further clarifies that object-oriented feminism engages with the study of object as an object itself. She suggests:

Object-oriented feminism [OOF] turns the position of philosophy inside out to study objects while being an object oneself. Such self-implication allows OOF to develop three important aspects of feminist thinking in the philosophy of things: politics, in which OOF engages with histories of treating certain humans (women, people of color, and the poor) as objects; erotics, in which OOF employs humor to foment unseemly entanglements between things; and ethics, in which OOF refuses to make grand philosophical truth claims, instead staking a modest ethical position that arrives at being “in the right” even if it means being “wrong.” (Behar, 2016, p. 2)

The framework of politics, erotics and ethics allows important consideration of how object-relations can be remade under conditions of technological change, like the advent of AI and other new technologies. In fact, this approach provides much-needed insights and dialogue on the potential social, political and ethical consequences of adopting technologies simply on the basis of cost and efficiency. Behar’s (2016) analytics provide insights into new possibilities for diversity research at the intersections of technology, politics, erotics and ethics.

Returning to Haraway’s (1985) work provides important insights here as an intellectual exercise and as a practical approach – how does the trope of the cyborg, an impossibility that will soon become reality, change our understanding of humanity, non-humans and the fusion of these two worlds? By considering what would happen if more-than-humans or human–technology fusions were to materialize, how might our concept of diversity need to change and with what ethical considerations, material consequences and political ramifications for organizations and society?
References


Behar, K. (Ed.) (2016), Object-Oriented Feminism, University of Minnesota Press, Minneapolis.


Diversity and future of work


Further reading


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