Can ICT Enhance Workplace Inclusion?
ICT-Enabled Workplace Inclusion Practices and A New Agenda for Inclusion Research in Information Systems

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Abstract

Workplace inclusion is a strategic concern for organizations, yet challenging to achieve. We investigate how Information and Communications Technology (ICT) use can enhance workplace inclusion. Based on qualitative data collected from a leading UK organization, we conceptualize four ICT-enabled workplace inclusion practices – Expanding, Orienting, Enculturating, and Reflecting. Each practice entails the use of multiple ICT applications to enhance workplace inclusion through a distinct set of organizational activities. We also highlight the Reflecting practice as key in enhancing other practices. Drawing from our findings, we develop a framework for ICT-enabled workplace inclusion that constitutes inter-related ICT-enabled practices focused on multiple organizational activities. We contribute to the literature on the strategic role of ICT for organizational/social good, a current area of research priority for the information systems discipline.

Keywords: ICT-enabled workplace inclusion practices, ICT and organizational good, workplace inclusion

INTRODUCTION[1]

Workplace inclusion (WI) is a strategic concern for firms, individuals, and society. Broadly defined, WI is the recognition of and respect for differences in identity, background, and knowledge of different organizational members, and the leveraging of them for strategic goals (e.g., Mor Barak, 2015; Roberson, 2006). The strategic importance of WI is predicated on a number of positive outcomes attributed to it. Practice-based reports focusing on organizations in the United States (US) show that inclusive organizations are 44% more likely to have above-average revenue growth compared to other firms in their industry (Hastwell, 2020) because employees are more loyal and better motivated, hence more productive. WI also advances organizational reputation (WomenInTech, 2021) and contributes to an overall fairer society. A 2017 survey of senior executives by the consulting organization Deloitte shows that the proportion of those who view WI as a top priority has grown by 32% between 2015 and 2017 (Bourke et al., 2017).

However, it is becoming increasingly clear that WI is challenging to achieve (Köllen, 2021). Barriers to WI manifest in a number of aspects. Classification is grouping and restricting or privileging employees, based on characteristics such as race/ethnicity, gender and sexual identity (Bartels et al., 2013). Stereotyping is congealing and solidifying identities by inferring that an individual has characteristics that members of that group are purported to have (Bartels et al., 2013; Huang, 2021). Segregation is the inequitable distribution of resources and opportunities for different groups (Köllen, 2021). These stem from (in)actions and cultural assumptions deeply embedded in the everyday work of employees rather than from isolated events. Typical organizational activities for bolstering WI – such as diversity

training events – thus have limited effectiveness because they are localized in time and place without enabling continued workplace interactions among employees that could lead to sustained action that promulgates WI (Bernstein et al., 2020). Against this backdrop, an emerging trend suggests that information and communications technology (ICT) can be used to support activities that potentially enhance WI. For example, "bias meters" (e.g., www.textio.com) are used to detect gender bias in the text of organizational documents such as job advertisements. However, such examples remain anecdotal. The role of ICT in engendering WI has not been systematically theorized or empirically examined. The objective of our research is therefore to **investigate how the use of ICT can enhance workplace inclusion** by reducing barriers to it.

To achieve this objective, we conducted a qualitative study of WI in one of the largest recruitment firms in the United Kingdom (UK). The recruitment sector is particularly relevant for examining WI because it stands at the forefront of organizational initiatives relating to WI. A 2021 survey of over 1,000 hiring leaders from the US, UK, and Australia found that 100% of the respondents regarded WI initiatives as very important and 33% stated them as a top and immediate priority for their organizations (HireVue, 2021). Specifically, we conducted interviews with 27 individuals across multiple departments, managerial levels, and roles. We asked questions on how organizational members engaged in WI and the role of ICT therein. We also analyzed additional data from the organization, including (a) hiring reports, (b) posts on Yammer (the company's enterprise social media application), (c) WI policy documents, and (d) corporate social media WI campaigns on enterprise and external social media (e.g., LinkedIn).

From our findings, we theorize a model of ICT-enabled WI that comprises interrelated ICT-enabled practices. Specifically, we conceptualize and empirically identify four ICT-enabled practices, which we name as Expanding, Orienting, Enculturating, and

Reflecting. Each practice entails the use of different types of ICT to enhance WI through different organizational activities. We further highlight the Reflecting practice as key in enhancing the other practices. We contribute to the literature at the intersection of ICT and inclusion. This literature is limited to a focus on ICT contributing to *social* inclusion such as in refugee settlement (e.g., Andrade and Doolin, 2016), marginalization experienced by disadvantaged populations such as rural women and indigenous communities (McBride and Liyala, 2021), and the inaccessibility of ICT to older and younger people (Fox and Connolly, 2018). We extend this literature in a new theoretical direction by investigating and explaining how ICT can enhance inclusion in the *organizational* context. More broadly, we advance the burgeoning literature on the strategic role of ICT for organizational/social good, a current area of priority and focus for the Information Systems (IS) discipline.

LITERATURE REVIEW

In this section, we review the IS literature on inclusion and problematize the literature on WI.

Inclusion in the Information Systems Literature

IS research on inclusion has focused on how ICT fosters social inclusion. Social inclusion, defined as individuals "having the opportunities and resources to participate fully in economic, social and cultural life" (Wilson and Secker, 2015, p. 52), is the extent to which individuals, families, and communities can fully take part in society and control their own destinies (Warschauer, 2003).

A number of studies have examined how ICT helps **refugees integrate into their host societies** (AbuJarour et al., 2021) and overcome language barriers and complex bureaucratic processes (Köster et al., 2018). Refugees require timely information on navigating the asylum process, accessing healthcare and education, learning the local language, and transferring money. But such information is often distributed across a large

number of different sources (e.g., asylum counsellors, social assistance and youth welfare officers, and local non-governmental organizations and volunteers) and is dynamic (e.g., due to changes in government processes and points of contact). YouTube videos, applications such as DuoLingo, and massive open online courses can provide linguistic resources and inform refugees about local laws and regulations (AbuJarour and Krasnova, 2017). Job posting platforms can match refugees' resumes to employment and entrepreneurship opportunities. Mobile applications provide access to government services. Volunteers use ICT to coordinate activities important to refugees (e.g., learning the local language, going to doctors' appointments). Instant messaging and social media applications help refugees connect socially to locals, obtain information on, for example, accommodation, food, and financial aid (Beiser et al., 2015), and communicate with friends and family back in their home country (Köster et al., 2018). ICT also constitutes a resource from which refugees derive capabilities to exercise agency in ways that assist them to function effectively in the new society and regain control over their disrupted lives (Andrade and Doolin, 2015, 2016). Such capabilities include participating in an information society, communicating effectively, understanding a new society, being socially connected, and expressing cultural identities.

A second focus is the role of ICT in tackling the **marginalization experienced by disadvantaged populations** such as women, those doing menial work, indigenous communities, and those living with disabilities. Such communities often face a lack of a reliable means of livelihood and social dignity (Ahuja and Chan, 2020) and need access to livelihood opportunities and quality goods and services (Patnaik and Bhowmick, 2020). Populations at the bottom of the socioeconomic hierarchy use ICT to tackle the financial, spatial, and temporal separations they experience from mainstream society (Tarafdar et al., 2013). Rural women who experience financial exclusion can access lending services through mobile money applications such as M-PESA (McBride and Liyala, 2021). E-waste platforms

can help waste-pickers access government and social services as well as employment and entrepreneurship opportunities (Ahuja and Chan 2020). Indigenous communities may not have access to ICT that fits their linguistic needs (Dyson et al., 2006), However, assistive technology that ontologically maps medical language with aboriginal English can enable aboriginal and ethnic minority patients to overcome intercultural and linguistic barriers in e-medicine consultations (Forbes et al., 2014). People with disabilities (e.g., those classified as "blind", "autistic", "mentally disabled", or with "hearing difficulties") are disadvantaged in their access to the internet in absence of computers and mobile phones that have appropriate interfaces (Indongo and Mufune, 2015) but can be helped by AI-based captioning and voice-based web searches (Fichten et al., 2022).

A third focus of research is the use of ICT by **older and younger people**. Studies show that older people may be unwilling to use mobile-health applications for sensitive health issues because they feel vulnerable due to privacy and trust concerns regarding misuse and unauthorized use of their data collected through such applications (Fox and Connolly, 2018). Research shows that unequal distribution of resources gives rise to the digital exclusion of young people with disabilities. Economic capital (individual and family income), social capital (knowing how to converse and socialize), and cultural capital (ability to read and write) translate into general digital resources (e.g., abilities to purchase and maintain computers, understand issues such as cyber-safety, and develop positive attitudes to connecting with people online) and disability-specific digital resources (e.g., positive attitudes toward young people with disabilities being online, and knowledge about disability-related social media sites) (Newman et al., 2017).

Workplace Inclusion: Its Strategic Importance and Barriers to Achieving It

WI represents the appreciation of employees with different identities, capabilities, and backgrounds, and their enablement for contributing to the organization's goals (Liswood,

2022; Nishii, 2013). WI is strategically important for organizations for several reasons (Köllen, 2021). An inclusive organization enables employees with different perspectives to participate in decision-making and problem-solving, leading to more creative solutions and better organizational performance (Pless and Maak, 2004). Such an organization can increase employees' job satisfaction and attract high-caliber talent because their skills are fruitfully utilized (Hunt et al., 2015; Rock and Grant, 2016). Furthermore, WI promotes employee belonging and workplace equality (Köllen, 2021) by extending opportunities for advancement to disadvantaged groups such as women and ethnic minorities (Mor Barak, 2015), which contributes to broader societal inclusion.

Traditional approaches to increasing WI typically include the following: (a) training events intended to help employees become aware of and understand demographic and cultural differences underlying their own and colleagues' behaviors; (b) performance and development appraisals; and (c) performance-based reward and compensation decisions (Bartels et al., 2013; Brickson, 2000; D'Netto et al., 2014; D'Netto and Sohal, 1999). The intent of these actions is to enable all employees to contribute to an organization's goals through their work activities and be valued for their contributions. However, recent research shows that despite such actions, organizations find it difficult to achieve WI and that a lack of WI has proven to be an insidious and persistent workplace characteristic (Bernstein et al., 2020). This is primarily because barriers to WI stem from multiple types of intersecting dynamics that are socially embedded in day-to-day organizational processes and broader societal structures (Bernstein et al., 2020). In particular, three aspects have been known to be remarkably persistent – classification, stereotyping, and segregation.

Classification is the categorizing of employees based on differences in characteristics such as race/ethnicity, gender, and sexual identity (Bartels et al., 2013) and implicitly using the membership of such categories as a signal of restriction or privilege. Such categorization is

based on historically contingent configurations of intersecting attributes (Crenshaw, 1991), often embedded in "interlocking systems of race, class and gender" (Browne and Misra, 2003, p.489) among others, that (re)produce disadvantage or privilege for individuals and maintain systemic inequality (Collins and Bilge, 2020).

Stereotyping is the reification of identities by inferring that an individual has characteristics and abilities allegedly shared by members of a given group (Bartels et al., 2013; Huang, 2021). Employees use stereotypical beliefs regarding members of particular groups as a determinant of what they are like (e.g., "they have high or low work-related abilities") or how they should act (e.g., "mothers should [not] work"), which then influences expectations and evaluations of performance and rewards, rather than actual performance or merit (Rivera, 2012). Stereotyping results in poor opinions of work-related competence of some minority groups, which may unfairly and negatively affect their performance evaluation (van Laar et al., 2019). For example, women exuding confidence and authority, perceived as necessary for success in high-status roles, are seen as less likable and are often penalized in hiring, salary, and job promotion (Rudman et al., 2012; Williams and Tiedens, 2016). Thus, even if performance and merit are formally designated criteria for evaluation, individuals may unconsciously or consciously be poorly evaluated based on reified traits including gender, sexual orientation, ethnicity, race, and nationality, and be excluded from career advancement in the organization.

Segregation refers to the inequitable distribution of resources and opportunities. For example, lucrative tasks with high potential for advancement are seen as suitable for employees of certain characteristics usually associated with the majority (Tilly, 1998). People belonging to specific minority groups are often relegated to gendered and racialized functional roles, such as those that entail marketing the organization's products and services solely to particular gender and racial groups; such racialized roles have fewer prospects for

skill development and advancement, and enjoy lower reward because of their narrow scope (Köllen, 2021). Furthermore, social similarity produces liking, and people rate whom they like as being more competent (Rivera, 2012); in this way, dominant groups (re)produce their advantages. Socialization along the lines of demographic similarity also means that powerful networks influential in mentoring and promotion are available primarily to the majority demographic (e.g., exclusively male workplace networks organized around male-oriented activities) and are often outside the reach of the minority, which further entrenches barriers to WI (Amis et al., 2020; McDonald et al., 2018).

Based on the above, we identify several barriers that challenge the achievement of WI. Barriers to WI do not operate through any one isolated dimension of difference such as gender but through intersecting configurations of multiple types of differences such as gender, sexual orientation, class, race, ethnicity, and culture (Collins and Bilge, 2020; Crenshaw, 1991). It takes place through endogenous, multifarious, and ongoing workplace interactions that are shaped by and shape employees' lived experiences and organizational norms (Bowleg, 2012; Holvino, 2003). Thus, barriers to WI are rooted in pervasive institutional and structural issues rather than the isolated actions of a few (Gray and Kish-Gephart, 2013). Moreover, they have an agentic quality in that they are often done by people (Taket et al., 2009). Such barriers are socially (re)produced through widely accepted organizational practices. Thus, attempts at WI may be met with dissent and backlash (Bartels et al., 2013) because they may result in the discomfort of the majority toward the non-majority (Brief and Barsky, 2000). Indeed, minority groups' efforts to foster the inclusion of their members can often entail negative consequences for them (Amis et al., 2020).

In contrast to the organizationally embedded and ongoing nature of the lack of WI, traditional approaches to enhancing WI constitute discrete organizational actions and decisions limited to specific points in time. For example, employees undertake diversity

training when joining a company, or periodically. Performance appraisal and promotion decisions often only take place annually. Athena SWAN applications and Racial Equality Charter pledges (Bartels et al., 2013) take place periodically, typically every few years. Thus, efforts to achieve WI, rather than being embedded in ongoing day-to-day organizational actions, are largely confined to such separate and periodic efforts. Despite its importance, therefore, WI remains elusive for organizations, largely because barriers to WI are embedded in organizational norms and everyday individual actions, which are difficult to target and change.

Potential Role of ICT in Achieving Workplace Inclusion

Given pervasive and ubiquitous work-process digitalization, the use of ICT is embedded in day-to-day organizational actions. An increasing number of practitioner sources (e.g., newspaper articles and blogs) are beginning to report on the potential for ICT to alleviate barriers to WI, ranging from making employees feel more connected through ongoing engagement driven by enterprise social media to removing gendered language in job advertisements (Green, 2019; World Economic Forum, 2020). In the literature, a few recent studies have started to investigate how the use of ICT contributes to the flourishing of gender and ethnic non-majority workers in organizations. For example, Robert et al. (2018) found that communicating via text messaging rather than face-to-face can help a racially diverse workforce achieve better knowledge sharing because they can leverage the more impersonal nature of text messages to better communicate technical information and insights. Another study shows that workers with disabilities who use enabling ICT have greater functional independence and are more likely to perform organizational tasks satisfactorily without supervision and be considered for professional opportunities (Heath and Babu, 2017). However, the IS literature on inclusion focuses almost solely on social inclusion, and there is yet to be a systematic scholarly inquiry into what role ICT can play in contributing to WI.

Hence, there is both opportunity and need for research to examine and theorize the role of ICT in enhancing WI. Against this backdrop, the objective of our research is to investigate how the use of ICT can enhance WI by reducing barriers to WI.

METHODS

In this section we present our research setting and participants, explain the data collection process, and elaborate on our approach to data analysis.

Research Approach and Empirical Site

Given our research question, which seeks to understand *how* ICT shapes WI, as well as a lack of research in this domain, we employed a qualitative research design due to the strength of in-depth qualitative data in providing new insights into emerging research topics (Leidner et al., 2018; Yin, 2017). Our empirical site is a large and prominent firm in the UK from the recruitment industry. The firm recruits for temporary, permanent, and interim positions for organizations in different industry sectors through its online job platform and talent solution services.

The organization is an appropriate site for our study for several reasons. First, hiring as an organizational function has traditionally been vulnerable to the influence of bias and discrimination (e.g., Amis et al., 2020; Rivera, 2012; Sensoy and DiAngelo, 2017). Second, this firm has run several significant initiatives for WI. Third, the firm is known for its knowledge of WI and has its own Business School, with courses on diversity and inclusion. Finally, the hiring and recruitment industry is a bellwether sector for investigating WI because firms in this industry consider WI to be important (HireVue, 2021). Indeed, an increasing number of organizations intending to make progress on WI are collaborating with recruitment firms upholding such values for consulting and advice.

Access and Data Collection

Our data collection took place between March and December 2021. Semi-structured interviews with organizational members served as the primary source of data. Our initial point of contact was a senior member of the organization with the designation of Continuous Improvement Lead. She helped us map out the different departments in the company and introduced us to the first ten interview participants. We then used a snowball approach (Cohen and Arieli, 2011) to identify more participants throughout the organization. Such an approach is helpful when respondents are asked to talk about difficult and contentious subjects such as workplace inclusion. While respondents may be reluctant to talk either for fear of repercussions or because they may feel uncomfortable (Cohen and Arieli, 2011), introducing participants to the study through a trusted source helped to address these issues. Moreover, cognizant from our literature review that barriers to WI are interweaved throughout the organization, we aimed to recruit people from a broad range of departments and with different lengths of service in the company. The range of functions and levels of seniority helped us gather information from different perspectives. In total, we conducted 29 interviews with 27 individuals (18 women and 9 men; gender self-identified by respondents) from across eight functions and all managerial levels – junior, middle, and senior. Four participants combined their functional roles with volunteering as "diversity champions" in the organization and were interviewed as part of both roles. In the Appendix, Tables A.1 and A.2 provide an overview of the functional departments and characteristics of the participants.

The functions included those responsible for human resource management and learning and development activities – functions that often develop and manage WI initiatives (Bartels et al., 2013; D'Netto et al., 2014). The IT support function, responsible for application development and user support, was crucial to identifying relevant ICT applications. Client-facing functions such as account management and client-focused

operations were related to the organization's key business activity – recruitment. Stakeholder-facing functions such as brand development were included to understand the organization's strategic narrative regarding WI. Together, these functions covered a large gamut of the organization's processes.

We conducted our interviews virtually. We chose Microsoft Teams, the same video-conferencing software that the organization used for its own meetings, such that our respondents were familiar with it. For each interview, we ensured that the sound quality was adequate for transcription purposes (Greeff, 2020). Evidence suggests that respondents participating in online interviews are more relaxed, particularly if the interview topics are sensitive, because they are in their own chosen surroundings (Dodds and Hess, 2020). That notwithstanding, we took time and care to establish trust and rapport (Mani and Barooah, 2020) by explaining the project and data collection process to participants in our first email communication with them before the actual interview and by checking in during the interview to ensure that they felt comfortable. Through these measures, we addressed the effects, if any, of variability in respondents' access devices, ICT skills, and quality of internet connection (Masri and Masannat, 2020). We also promised anonymity and removed personal identifiers linking the respondents to the data.

The first two authors jointly conducted the interviews. In light of the limited research on the topic, we followed a practical iterative framework for the interview protocol development (Srivastava and Hopwood, 2009). Data collection, ongoing analysis of emerging themes in the data, and regular debrief sessions between authors took place concurrently, such that the interview protocol was refined over multiple successive iterations to focus progressively on salient emerging topics and categories within the data (Gioia et al., 2013; Wimpenny and Gass, 2000). The final interview protocol (see Table A.3) contained questions focusing on how ICT was used in WI-related activities in employees' everyday work

interactions, the organization's hiring processes, and its interactions with clients and industry stakeholders. On average, the interviews lasted around 60 minutes. They were recorded using Microsoft Teams and subsequently transcribed with an average transcript length of 9,332 words. The interviewing process stopped when the first two authors realized that they were hearing similar things in each successive interview and, thus determined that further interviews would unlikely contribute new concepts.

In addition to the interviews, we collected data from other sources, including: (a) the company's hiring reports; (b) posts on Yammer (the company's enterprise social media application); (c) the company's WI-related training materials; (d) corporate social media WI campaigns; (e) WI policy documents; and (f) blogs and other WI information on its website such as mentoring programs for women. See Table A.4 for a full overview of these sources.

Data Analysis

The interview transcripts and secondary data sources were analyzed in NVivo 11, using thematic analysis (Boyatzis, 1998). The first two authors independently coded the data and then compared and contrasted their codes in reflective sessions. Open coding was used to develop the themes and sub-themes and axial coding was used to identify their repeated occurrences. Following the first round of coding, the interview transcripts were re-read for a critical assessment of assigned codes and adjustments were made. The unit of analysis for coding was one paragraph (i.e., one full answer to an interview question). A particular paragraph could be given multiple codes. The supplementary sources were reviewed to complement and triangulate the findings derived from the analysis of the interviews. In the final stages of the analysis, we invited two respondents – a senior manager and an organizational WI consultant – for a second round of interviews for additional clarification and validation. We used mind-mapping diagrams (Figure 1) to understand the relations between the codes.
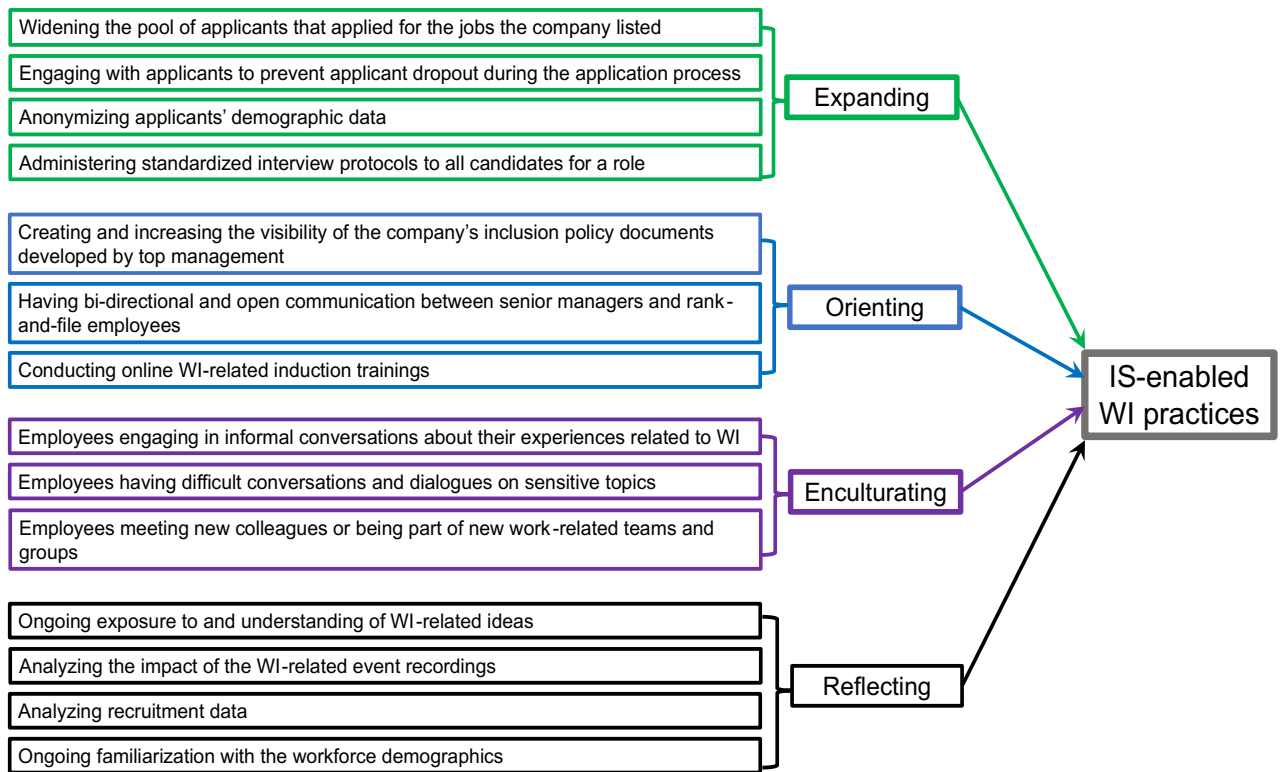
Figure 1. Coding Tree of Themes and Sub-themes

We found the following: (1) employees used ICT in the form of four ICT-enabled practices that focused on different activities in the organization; (2) these practices mitigated different barriers to WI; and (3) employees faced challenges in enacting these practices. We developed *four* sets of codes, namely: (1) ICT-enabled practices; (2) amelioration of a lack of workplace inclusion WI; (3) problems in the ICT-enabled practices; and (4) interactions among practices. Appendix Tables A.5, A.6, A.7, and A.8 provide illustrative details of our codes.

FINDINGS

We present our findings in three sub-sections. The first describes how employees understood WI and why they thought it was important yet challenging to achieve. In the second section, we describe four distinct ICT-enabled practices through which organizational members engaged in WI. The third section describes interactions among the four practices.

Employees' Understanding of Workplace Inclusion

Interviewees described WI as something that would or did make them feel safe, valued, and understood, and inculcated a sense of organizational belonging as exemplified by the following observation from the company's managing director. He said, '*inclusion is making sure that the different people you invited to your party feel comfortable enough to dance together*' (Henry, Managing Director). WI was perceived as intangible in that while it was difficult to explicitly "see" inclusion, it manifested itself and was experienced through certain characteristics of the organizational environment, such as '*empathy for everyone around: colleagues, customers, job candidates and the wider community*' (Mary, Continuous Improvement Lead).

WI was strategically important for a number of reasons. The internal organizational norms supported it. Externally, there was a growing awareness in the hiring sector of a lack of gender and racial inclusion, a problem that the organization's clients were keen to address. The wider business environment, including industrial policy bodies, encouraged organizations to prioritize WI. Despite its strategic importance, however, WI was perceived as being difficult to achieve. There was the risk of backlash from those who might fear the accompanying changes and see them as a *'tearing away of rights'*, as described by a diversity champion. He explained: '*I think that some people are very much mistaking a movement away from homogenized societal power into a more equal footing, as a tearing away of rights. But it's not a removal of rights. It's a removal of power. And that's scary. Because if you've been untouchable, to a certain degree, then you're suddenly "Oh, I'm a little bit in danger here". That is scary [to those traditionally holding power]*' (Mark, Project & Engagement Manager, LGBTQ+ diversity champion).

ICT-Enabled Workplace Inclusion Practices

We describe four ICT-enabled WI practices (*Expanding, Orienting, Enculturating,* and *Reflecting)* that emerged from our data analysis. We first define each practice and the applications used. We then explain how the practice reduced barriers to WI. We next describe the drivers and obstacles constituting the first three practices.

Expanding Practice

The "Expanding" practice was the ICT-enabled practice that facilitated inclusive, diverse, and fair recruitment, internally for the company and for clients. This practice was enabled through the following applications: (a) online gender checkers (e.g., Totaljobs Gender Bias Decoder); (b) video conferencing applications (Microsoft Teams, Zoom); (c) social media applications (e.g., LinkedIn), online job boards (e.g., Stonewall) and the company's website; (d) an application tracking system called Talent Link, and Microsoft Excel; and (e) a chatbot. Expanding **reduced classification** by not differentiating applicants based on characteristics such as gender, race, and sexual orientation, such that candidates did not feel discouraged from applying based on these characteristics, and by posing the same set of questions to all candidates for a particular job. It also led to enhanced transparency so that applicants did not feel they were unsuccessful because of, for example, gender or race, and thus **reduced segregation**.

Drivers of Expanding

Expanding had four drivers. The first was **widening the pool of applicants that applied for the jobs listed**. Hiring managers used gender checker applications (e.g., Totaljobs Gender Bias Decoder) to detect gender bias in the text of the job advertisements (e.g., to check that the text did not include more female- or male-oriented words). The Head of Talent Delivery explained that hiring managers '*run the adverts through the online checker… to make sure that adverts are not enticing only to candidates from one kind of background*' (Paul, Head of Talent Delivery). Propelled by their deep understanding of

factors affecting sourcing, such as pool attrition, hiring managers went beyond the company's own general job board and posted advertisements on minority-focused online job boards (e.g., the Stonewall network, an LGBTQ+ network), to reach applicants of different backgrounds. A hiring manager explained '*if we need 60 people to start over the course of three months that means we need 240 people to get successful interviews out of. And to get 240 people, we'd probably need the best part of around 2000 applications*' (Sam, Talent Delivery Team Manager). To find applicants for jobs in sectors that did not attract a sufficiently gender-diverse pool (e.g., Information Technology [IT], construction, nursing), talent acquisition managers designed *'myth buster'* campaigns on the company's social media platforms (e.g., LinkedIn), aiming to dispel stereotypical views such as that '*only men can do IT'* (Olivia, Head of Internal Talent Acquisition). The company also used its website to depict the gender and racial diversity of its workforce. A senior Human Resources (HR) director referred to this as 'optics' and explained that '*if I wanted to work for the company – if I saw that material [only white people on our website] I probably wouldn't apply. Because I can't see me there [even though I know we are a diverse organization]*' (Abiona, Diversity Champion, HR Area Director).

The second driver was **enabling applicant engagement to prevent applicant dropout during the application process**. A chatbot application helped applicants develop their applications in a staged manner, instead of asking all questions at the same time, which prevented early self-elimination. The Account Director said, '*rather than "I want everything now and I'm going to shut you out of the process quickly", it is "I want this information now, great, that's good. Tell me some more". So, we're building the picture of the candidate through the process rather than saying "You're not the picture I want so you're out from the start"*' (Emily, Account Director). Complementing this staged process, and outside its structured workflow, hiring managers digitally engaged with applicants between stages, via

video conferencing applications, to provide additional information such as video scenarios of key responsibilities. From experience, hiring managers knew that more applications came in at the start of the week. Therefore, talent managers used the application tracking system to send out interview calls at the end and start of the week. '*We do our send-outs to be on a Friday afternoon so that it will start hitting people's inboxes*' (Sam, Talent Delivery Team Manager). The chatbot also allowed applicants to select their own interview times at their convenience. Hiring managers stored feedback in the application tracking system on why a candidate was unsuccessful, which was conveyed to candidates upon request.

The third driver was **administering standardized interview protocols to all candidates for a role**. The questions focused on candidates' work experience and skills. A talent management application was used, as a hiring manager explained, instead of saving multiple copies of the interview protocol in a Word document, which would lead to information becoming inconsistent or getting lost: '*now you can go on to the candidate's profile in Talent Link [application tracking system], and all the interview questions are there*' (Diane, Recruitment Processes Outsourcing Talent Partner). For those who could not travel, recorded video interviews based on these questions provided a standardized source of information. Scoring matrices, stored in the application tracking system, were used to standardize evaluations of candidates' responses, which helped hiring managers make '*an evidenced decision based on the scoring of standard criteria*' instead of '*going more with their gut decision*' (Emily, Account Director). Emily further explained that '*the first time we [used] a scoring matrix, [we] were surprised. Those weren't necessarily the candidates that we would have thought we would end up giving an offer [to] if the matrix had not been in place*'.

The fourth driver was **anonymizing applicants' demographic data**, using the features of application tracking system and Microsoft Excel such that hiring committees did

not have access to such data, including names, ethnicity, age, gender, etc. The application tracking system applied anonymization through automated algorithms, which targeted specific fields of demographic information in applicants' resumes.

<u>Obstacles to Expanding</u>

Expanding also had obstacles. **Less technology-proficient candidates and those with specific conditions such as dyslexia faced a disadvantage** with the application process and the chatbot interactions, unless they specifically declared these conditions and opted out. Further, advertising positions on online job boards meant that **some applicants, particularly in underprivileged areas might not have access to a computer or the internet**. An IT project manager explained that '*if you're looking at areas of community where they might not be utilizing technology, us doing a technology campaign is only going to go so far*' (Katherine, Deployment Project Manager).

An obstacle associated with the standardization of interview protocols through the application tracking system was that **nuanced applicant-specific information needed to provide personalized help to particular candidates could not be collected.** Not all standardized questions were relevant to all applicants, and irrelevant questions could '*turn the candidates off from answering [and get unfairly penalized]*' (Emily, Account Director). This was especially true of 'killer' questions that were used as elimination criteria such as questions pertaining to work experience. A resume that was a borderline but possible fit (e.g., the applicant did not have project management experience for a project manager's role but had relevant transferable skills such as administration) could be eliminated if such nuanced information could not be entered by the applicant. **A standardized interview also made it difficult to assess contextual soft skills** that would surface in a more '*natural conversation*' (Emily, Account Director), such as whether the applicant could deal with customer complaints, work in an agile environment, or was target driven.

An obstacle associated with **application anonymization was that personal details needed to ensure the diversity of new hires could not be collected.** Candidates' reluctance to share their demographic information and the General Data Protection Requirements made it '*difficult to get a true picture of what diversity really looks like in the candidate pool*' (Emily, Account Director). One interviewee gave an example of how anonymizing his background information from the application could work against him: '*if I were to leave my current role, I would be going for a diversity and inclusion role. If you removed all of the information about me, that I am a queer man and that I have been a carer for someone with complex disability needs, my fit for such a role would not be easily demonstrable*' (Mark, Project & Engagement Manager, LGBTQ+ Diversity Champion).

Orienting Practice

The "Orienting" practice refers to the ICT-enabled practice through which top management steered the organization's WI-related activities and signalled the importance of WI in the organization. This practice was enabled through the following applications: (a) enterprise social media (Yammer); (b) the Learning Management System (LMS365); and (c) digital collaborative platforms such as OneDrive. The Orientating practice was brought forward by three entities: inclusion sponsors (members of the company's top management team that volunteered to lead WI), the Inclusion and Belonging Steering Committee consisting of 'diversity champions' (situated in the HR and account management functions), and the Learning and Development unit (which worked closely with the HR function). Orienting **reduced segregation** by enabling all employees to understand and give input in framing the organization's strategic stance toward WI.

Drivers of Orienting

Orienting had three drivers. The first was **creating and increasing the visibility of the company's inclusion policy documents developed by top management.** Posts on

Yammer by inclusion sponsors and diversity champions made the policies transparent, visible, and easy to locate – as compared to, for instance, broadcast email, which, as literature shows, is often ignored by recipients (Sumecki et al., 2011). '*If we wanted to find anything out [about WI from top management] – that's going to be there [on Yammer]*' (Abiona, Diversity Champion, HR Area Director). The direct access to top management was important because the mindset, behaviors, and language of leaders were fundamental to setting the WI tone in the organization: '*Whether we realize it or not, we aspire to be like our leaders, and it is the leaders that we look at to see what is acceptable and what isn't*' (Nancy, former employee and WI consultant). One such document was the Inclusive Workplace Guide, which addressed employees' questions on race (e.g., '*Can one know someone's ethnicity by looking at them?*' or '*Can one offend a minority ethnic person by talking about race?*'). This document encouraged employees to engage in open and meaningful conversations on difficult race and gender-related topics. Hyperlinks and tabs linked to additional resources, as well as to information on escalation routes and support provided by the organization on such topics and issues. By using Yammer to post and highlight such documents, top management encouraged employees to be aware of these sorts of complex and sensitive topics. A member of Learning and Development said, '*I think there's respect for senior managers. If they say something people are really bought in. So, they have got the power to really push the [WI] message*' (Linda, Learning and Development Business Partner).

The second driver was **bi-directional and open communication between senior managers and rank-and-file employees**. For example, inclusion sponsors shared their views on topics such as 'Black Lives Matter' on Yammer, which encouraged other employees to do the same. An Account Director explained: '*We can also tag managing directors into Yammer posts [so that they can read what we write and respond with]. In a post recently I tagged our managing director and our HR director in it*' (Emily, Account Director). Emily further noted

that one did not necessarily have to agree with what a senior manager said in a post, and one wouldn't '*get into trouble for disagreeing*', and that '*[without email which was one way], we have like direct access [and can give feedback]*' (Emily, Account Director). Senior management's presence in the conversations on Yammer '*helped people feel that they were supported*' (Katherine, Deployment Project Manager) and gave junior members the confidence to post as well: '*Many of our employees may be thinking: "Oh, if that's directors saying, then, maybe I can put a comment as well"*' (Abiona, Diversity Champion, HR Area Director). One interviewee noted that employees engaged with the materials that senior managers posted on Yammer, with '*people having a better voice thanks to this [application]*' (Robert, Director of Talent Acquisition).

The third driver was **online WI-related induction training** conducted by the Learning and Development unit for all new hires through the Learning and Management System, through interactive exercises that made them familiar with the company's WI experiences and initiatives. Employees were presented with WI-related scenarios, such as hiring candidates based on race and gender, and asked how they would act. They were given feedback in the context of the organization's stance on topics as to what behaviors were considered discriminating. These scenarios were developed from the hiring managers' real-life recruiting experiences that were stored on OneDrive.

<u>Obstacles to Orienting</u>

First, **not all employees engaged with the WI materials posted online** by the senior managers. '*There are people that actively participate and comment, and there are those who don't. It's a challenge because making participation mandatory would not help. It's about encouraging them to give them the opportunity to participate in WI and think, "Actually, I've never considered that experience"*' (Linda, Learning and Development Business Partner).

Second, there was a **lack of data on different types of demographic characteristics,** beyond those that were more immediately apparent, such as gender and ethnicity, which made it difficult to decide what WI-related issues needed to be addressed in the training activities. '*Without recording that [demographic] data, it makes it very difficult to categorically know, actually, who it is we employ. This is a key challenge our workforce faces*' (Sophia, Diversity Champion, Senior HR Business Partner).

The third obstacle was that **senior managers at times posted insensitive comments** on Yammer. For example, one of the inclusion sponsors, a white British male, wrote on Yammer that he understood what it was like to be discriminated against because when he went to Australia, being British, he struggled to get a job. A senior HR employee said of this post: '*And I thought "Oh my God, are you joking?" Because if you don't understand that [even though you are from a different country] you're not being judged for how you look or what your hair is like – if you think that [struggling to get a job in a different country]is the same as being subject to racism, then we've got some problems*' (Eve, Head of Employer Brand & Attraction).

Finally, there was a risk of '**rainbow washing**' – a publicity-oriented action of ICT use rather than an actual WI action, because it is '*a cool thing to do*': '*For pride this year, we wanted to turn our website logo rainbow, as a lot of companies do. But valid concerns were raised about rainbow washing – companies that will turn their logos rainbow for June and then not back it up with anything*' (Mark, Project & Engagement Manager, LGBTQ+ Diversity Champion). Earning the rainbow would mean engaging in substantive actions that should internally undergird the public-facing rainbow.

Enculturating Practice

The "Enculturating" practice was the ICT-enabled practice for informal interactions and socialization among the rank-and-file, which constituted the everyday language and

behavior of employees in relation to WI. As part of this practice, the company's employees conversed about, became aware of, appreciated and/or understood different aspects of WI. This practice was enabled by: (a) enterprise social media (Yammer); and (b) video conferencing applications (Microsoft Teams, Zoom). Enculturating **reduced segregation** by providing all employees with the opportunity to engage in WI-related conversations with colleagues. Yammer enabled employees to initiate and participate in such conversations irrespective of their department and office locations. This practice also **ameliorated stereotyping** by enabling employees to become aware of, understand, and appreciate mutual differences.

Drivers of Enculturating

Enculturating has four drivers. The first concerns employees **engaging in informal conversations about their experiences related to WI** on Yammer forums. Through such conversations, they became aware of and began to appreciate differences among themselves. Employees posted their personal stories of being excluded. The functionality of staying anonymous while posting, if one chose to, enabled those who were hesitant to reveal their identities to participate. Yammer's multivocality enabled simultaneous and interactive communication, paving the way for honest and open conversations, as illustrated by this observation from a senior HR executive: '*Sometimes people just don't know [about how different everyone is]. For instance, we've got a colleague who celebrates Ramadan who wrote a post on Yammer about what happens during Ramadan, how they want to be treated. Like, they don't want people to say, "Oh my God, you're starving yourself!"*' (Abiona, Diversity Champion, HR Area Director). The company's LGBTQ+ diversity champion further explained, '*For the Pride month this year, I put together content for every single day of June that was released on Yammer. And some of that would be interesting to some people, other parts would be interesting for other people. I used Yammer as a platform to share the*

voices of other [LGBTQ+] people, in addition to my own' (Mark, Project and Engagement Manager, LGBTQ+ Diversity Champion).

The second driver was **having difficult conversations and dialogue on sensitive topics**, facilitated by Yammer. Employees who identified with the majority racial group (Caucasian, in the case of this organization) felt nervous talking about race and were unsure about what to say. Employees from racial minority groups corrected stereotypical notions about their groups. For example, employees with a South Asian heritage wrote that, contrary to typical assumptions, not all necessarily like curry. They were able to discuss related shared experiences and express difficult feelings. Participants talked about '*gaining confidence*' off the back of such discussions to '*put stuff on Yammer and to be open on Yammer*' (Abiona, Diversity Champion, HR Area Director). Such conversations facilitated by Yammer helped demystify difficult topics and reduce the attendant discomfort and fear around them. '*I think getting people talking probably took the most amount of time, but now [...] the conversations are happening all over Yammer. I think we've done well at creating some good [Yammer] forums for that*' (Mary, Continuous Improvement Lead). The company's diversity champion gave an example of a colleague who wanted to come out as transgender but had some reservations about doing so: '*I was able to say, "I'm not telling anybody. This is your information; you tell people when you want to. But also, I'm here to help you through everything that needs to be done"*' (Mark, Project and Engagement Manager, LGBTQ+ Diversity Champion). That employee then wrote a piece for Yammer describing their experiences of coming out, which was anonymously posted on Yammer by the diversity champion on their behalf. '*They were able to use their voice to tell their story safely*' (Mark, Project and Engagement Manager, LGBTQ+ Diversity Champion).

A third driver was **employees meeting new colleagues or being part of new work-related teams and groups**. Through the Yammer channel on Inclusion and Belonging,

employees from different departments and functions came together through particular WI-related topics such as Black History Month. As people shared their personal stories, they spotlighted various colleagues through Microsoft Teams and Zoom webinars and through videos posted on Yammer, highlighting people with different backgrounds. Thus, they came to appreciate the ethnic diversity of their colleagues. When webinars posted on Yammer showcased people who had worked for the company for more than 35 years, many were '*amazed that there are people who are from an ethnic background and who have been with the company for so long. People didn't know. And that's what the digital space did for us*' (Abiona, Diversity Champion, HR Area Director). Another senior executive said: '*[It's been a] great surprise to people, who previously were in their little silos and now are in contact with a wider network than they might have been before. Just realizing how diverse we are, and some of those stories on Yammer are really impactful*' (Emily, Account Director).

<u>Obstacles to Enculturating</u>

Enculturating also had three obstacles. The frank Yammer-enabled interactions often brought to the fore **day-to-day language that was found offensive**. As one participant described her coming out experience, '*I wouldn't say I was bullied. But I had people say to me "Oh you're so gay!" on certain things. And I just thought "Wow that's like me saying, 'Oh you're so black!' or 'You're so female!'". It's just wrong. And so, I don't want people just talking about Nancy the lesbian. I want people talking about Nancy for who I am in that organization and what I bring to it*' (Nancy, former employee and WI consultant).

Furthermore, **not all employees viewed and participated in WI-related conversations on Yammer**. Some felt that posting on Yammer was akin to "preaching to the converted": '*I don't know if you could hang your hat on the engagement on Yammer meaning it's necessarily reaching the right people*' (Eve, Head of Employer Brand and Attraction). Others were of the view that with such sensitive topics, it was important to interact face-to-

face. Some employees were reluctant to engage with Yammer at work because they found social media distracting: '*I know what I'm like on places like Facebook – I'll end up scrolling, scrolling and procrastinating*' (Sam, Talent Delivery Team Manager).

Reflecting Practice

The "Reflecting" practice was **the ICT-enabled practice** for continuous analysis and learning about WI across the organization. It was enabled through the following ICTs: (a) video conferencing applications (Microsoft Teams, Zoom); (b) enterprise social media (Yammer) and Microsoft Forms; (c) the application tracking system called Talent Link; and (d) Oracle self-service.

<u>Drivers of Reflecting</u>

There were four drivers for Reflecting. The first was **ongoing exposure to and understanding of WI-related ideas**. This happened through thrice weekly, half-hour Microsoft Teams and Zoom-based lunch-and-learn type of gatherings organized by the Learning and Development function focused on topics such as Black History Month, International Women's Day, Pride Month, LGBTQ+, minority ethnic inclusion and Islamophobia awareness. There were also online talks by employees, WI thought leaders in the industry, and Ted Talk speakers. Employees could access these sessions from different devices, choose to keep their video cameras off, and (re)view and engage in extended discussion, vis-à-vis their recordings catalogued and posted on Yammer. As the Learning and Development partner elaborated: '*We keep getting maybe 100–150 people a week to attend. And we never really did anything like that before when we did the face-to-face training*' (Linda, Learning and Development Business Partner). Events in the larger society, such as the killings of George Floyd (May 2020, US) and Sarah Everard (March 2022, UK) and the Black Lives Matter and MeToo movements often triggered such understanding. These social movements '*shone the spotlight on workplace inclusion, and what is fundamentally right and*

wrong' (Nancy, former employee and WI consultant). Such exposure **tackled stereotyping** by increasing employees' awareness of topics such as race and sexual orientation. It triggered conversations on race in the Yammer channels, which in turn created an opportunity for senior management to pay heed and '*reflect on how the company's ethnic minority workforce feel at this time*' (Sophia, Diversity Champion, Senior HR Business Partner).

The second driver was **analyzing the impact of WI-related event recordings** posted on Yammer. The Learning and Development team analyzed the number of views and likes for each post, the number of discussion threads and their reach and longevity. '*We can see easily which topics are more popular [and what people are saying]. So, for example, the lunch-and-learns around the International Women's Day were super popular. It meant that there should be a focus on this topic and [we planned] follow-up events*' (Linda, Learning and Development Business Partner). The screenshot of a Yammer post and discussion thread on a Learning and Development event in Appendix Figure A.9 shows people posting questions they would want to ask at the event. For example, a male employee said: '*What are some of the ways that well-meaning men can get it wrong when trying to support women into leadership in the workplace, and how we can do better*?' Others endorsed with likes, comments and tagging of those with similar questions and relevant answers. The Learning and Development team also collected feedback digitally using Microsoft Forms, wherein employees gave feedback in their own time and could '*choose to be anonymous if they don't feel comfortable about sharing [identifying details]*'. This was better than collecting feedback sheets in the training room where '*people were just rushing because they wanted to leave*' (both observations from Mark, Project & Engagement Manager, LGBTQ+ Diversity Champion). The feedback solicited ideas for improving future sessions and future topics of interest to employees. These actions in Reflecting **tackled stereotyping** by bringing to the fore employees' queries regarding uncomfortable and difficult WI topics. It also **tackled**

segregation because everyone had a chance to give feedback on WI-related events, anonymously or otherwise.

A third driver was **analyzing recruitment data** using the application tracking system. During the application process, all candidates received an optional questionnaire in the application tracking system, through which they could upload demographic data and provide feedback on their experience of the application/recruitment process (without violating legal data protection requirements), to be stored in and managed through the application tracking system (through access rights). The hiring team did not have access to this information at the time of recruitment unless a candidate applied under a disability or a Rooney rule scheme,[1] which required the hiring team to select a fixed number of disadvantaged or minority candidates for the hiring interviews. Hiring managers analyzed this data, as the Project & Engagement Manager explained: '*We hold this data separate from any of the data shown to any people who make recruiting decisions. And we can see things, like, whether people from different ethnic groups or from different genders are applying for roles and at what point they fall out of the process*' (Mark, Project & Engagement Manager, LGBTQ+ Diversity Champion). Hiring managers analyzed this data to shed light on the extent to which recruited candidates were representative of their local community. Hiring managers also analyzed the feedback on how candidates experienced the application process to identify factors that may have been non-inclusive, such as a lack of accommodation for disabled candidates during the recruitment process. This driver **reduced classification** by avoiding differential treatment of applicants based on demographic or socio-economic characteristics.

The fourth driver was **ongoing familiarization with the workforce composition**. The HR department oversaw a project called '*Who do we think you are?*' HR executives in

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[1] Rooney rule is a hiring scheme, as part of which the company has candidate quotas or needs to progress at least one candidate from the disadvantaged or minority background to the interview stage. The scheme is mainly applied when recruiting for middle and senior level positions.

collaboration with the diversity champions needed to '*get a feel*' for who worked for the company to understand how they could help the employees with potential WI challenges. As part of this project, employees were encouraged through Yammer campaigns to confidentially upload their demographic (e.g., gender, ethnicity) information to HR, using Oracle self-service. At the same time, every question in the '*Who do we think you are?*' campaign had a 'prefer not to answer option', '*because that in itself is giving a statement of "I probably don't fit into the majority on this, but I'm not comfortable telling you how I don't"*' (Mark, Project & Engagement Manager, LGBTQ+ Diversity Champion). This driver thus **alleviated segregation** by addressing employees' negative experiences and apprehensions regarding, for example, their ethnicity and sexual orientation.

How Reflecting Shaped the Other Practices

Reflecting enhanced the other practices. Analyzing demographic data and feedback from applicants helped make the hiring process fairer and more inclusive, thus **improving Expanding**. HR analyzed the data for each post by applicants' ethnicity, gender, and age. They captured the number of candidates who applied from different sourcing channels, the number that dropped out, and the candidates' pass rate for each channel. Over time, this analysis helped the HR department understand applicants' gender and ethnic characteristics. It also helped with understanding which types of characteristics were under-represented, which helped inform the widening of future applicant pools. For example, to reach potential candidates in communities without proper internet access, the company advertised positions using face-to-face engagement in those communities, such as by going to a job center, organizing a food drive, or visiting a soup kitchen. Analyzing engagement on Yammer and the '*Who do we think you are?*' project further helped senior managers understand and portray the organization's inclusion narrative better in the job market – such as through redesigning the company's website and external communication materials to better reflect the

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demographic composition of employees and attract a wider and more diverse pool of applicants. '*Our marketing now showcases that we are diverse. And that's really important because if you work here, you know what's happening within the organization. But from the outside looking in […] if we can't portray that we are a diverse company why should people say that we are?*' (Abiona, Diversity Champion, HR Area Director).

With regard to **Orienting**, analysis of WI events and posts on Yammer helped identify topics that resonated with employees. For example, many employees talked about International Women's Day on Yammer, which was identified as a topic of interest with which employees closely engaged. As the Learning and Development executive explained, this led to the development of a leadership mentoring program for women: '*So, it meant that, right, there should be a follow-up, there should be a focus on this. It just made us really focus on where we want to go moving forwards*' (Linda, Learning and Development Business Partner). Analysis of Yammer conversations on sensitive topics inspired learning about WI not only among the rank-and-file, but also among the senior leaders and diversity champions**.** One diversity champion discussed how her role '*furthered her own learning about WI*' as well (Abiona, Diversity Champion, HR Area Director). The Head of Learning and Development discussed how developing training programs for senior management and diversity champions helped her understand '*how to be a guardian of WI and have difficult conversations about WI, while at the same time being sensitive and respectful as to how people might receive that information*' (Mia, Head of Learning and Development). Analyzing the impact of WI-related events and discussions helped promote frank conversations by revealing areas of concern. The Learning and Development Business Partner gave an example of how an offensive word used in an online WI training course was identified: '*The wording on a course about how to refer to somebody [with respect to their sexuality] hadn't been updated. Somebody had messaged and said, "Actually I don't feel comfortable with that*

language"'. The training material was rewritten. The Learning and Development team further explained, '*He [the employee who gave feedback] was really grateful and surprised*' (Linda, Learning and Development Business Partner). Finally, analyses of the Yammer conversations and the impact of WI events led to changes to training materials. For example, material on '*softer knowledge culture: e.g., how to feel safe at work generally, how to be yourself and not be concerned about being your authentic self*' (Sophia, Diversity Champion, Senior HR Business Partner) was included in the induction training materials.

In **Enculturating,** understanding the demographic composition of the company's workforce through the '*Who do we think you are?*' initiative helped employees better understand one another's demographic backgrounds. The diversity champion leading this initiative explained '*I don't know how many trans people [colleagues] we've got, so it's difficult to create awareness when you're not really sure, if people are struggling with that element. I guess [this] project has been a starting point for us to be able to make some of the really big changes we'd like to make*' (Sophia, Diversity Champion, Senior HR Business Partner). Analyzing the questions for which many people chose the 'prefer not to answer' option, such as sexual orientation and national identity, helped diversity champions identify potential problem areas. '*Is there a problem within our culture that we need to address? Is there a mistrust amongst people that they're going to have a fair go at things?*' (Mark, Project & Engagement Manager, LGBTQ+ Diversity Champion). It also led them to explain to employees that the purpose of collecting demographic data was to inform the company's WI activities and that their data would be stored securely and not be tracked back to individual people. The diversity champion explained, '*I would never have been comfortable revealing my sexuality in a monitoring form, because my first thought would be "I'm going to face discrimination for this, I'm not putting it down". It's important to be open to employees*

about the purposes and processes behind this' (Mark, Project & Engagement Manager, LGBTQ+ Diversity Champion).

DISCUSSION

We draw upon our findings to conceptualize **ICT-enabled workplace inclusion** as shown in Figure 2. We first theorize how the four practices facilitate WI in the organization through the drivers. We then explain how use of ICT can constrain the three practices of Expanding, Orienting, and Enculturating through the obstacles. We then theorize the role of Reflecting in continually enhancing the other practices.
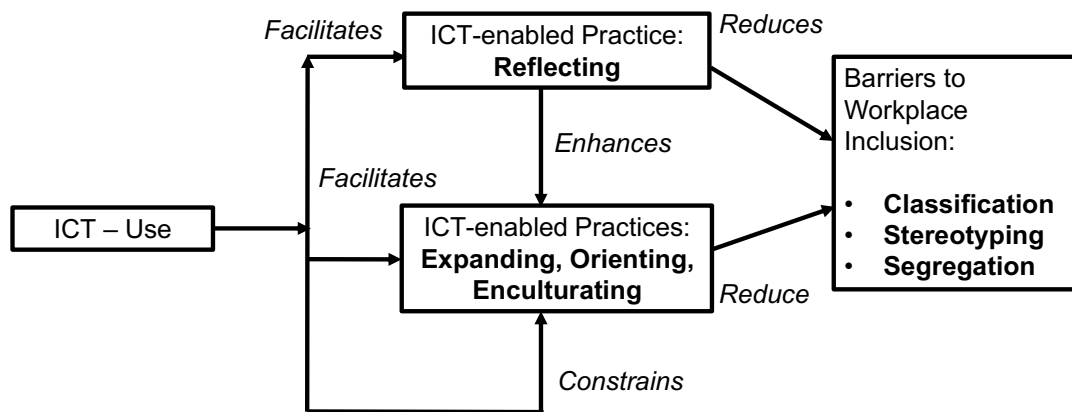

Figure 2. ICT-Enabled Workplace Inclusion

ICT-enabled Practices Facilitate Workplace Inclusion

Literature shows that ongoing workplace interactions shaped by employees' actions and identities perpetuate barriers to WI (Castro and Holvino, 2016). Our study reveals the role of ICT in creating a foil. We find four ICT-enabled practices that enable the *opposite kind of* ongoing workplace interactions, i.e., those that reduce WI. ICT-enabled practices weave applications into individuals' workflows. They embody situated activities that are mediated by the materiality of the applications (Feldman and Orlikowski, 2011). The four practices illustrate how employees weave ICT use in different kinds of recurrent WI-related workplace exchanges that they have with their co-workers, and in so doing produce the organizational realities pertaining to WI.

Each ICT-enabled practice reduced one or more barriers to WI, as we show in Table 1. Expanding reduced classification and segregation. It reduced classification in hiring by rectifying gender bias in the text of job advertisements. It reduced segregation in several ways: by creating a demographically wider and more diverse pool of candidates; standardizing questions; and ensuring that all applicants had the opportunity to engage with hiring managers outside the structured process of checking boxes that might automatically reject candidates, to complete their application irrespective of race, gender, or technical ability.

Orienting made the senior management's WI-related agenda and inclusion policies transparent and visible, articulating their strategic importance. In so doing, it signalled the intent that organizational resources and opportunities to advance should be equally available to everyone, thus mitigating segregation.

Enculturating gave "voice" to all employees, as they used IS to express and discuss views about race, sexual orientation, identity, Pride, unconscious bias, discrimination, equality, etc., thus reducing segregation. Such topics could be uncomfortable and challenging to discuss in face-to-face interactions, but were made easier to talk about through the more impersonal, interactive, asynchronous, and anonymous channels of Yammer. People could go back and reflect on the content, before making (considered) responses. Through sustained and ongoing interactions among employees from different socio-demographic and cultural backgrounds, Enculturating helped employees appreciate perspectives, customs, and cultural values other than those of their own. Research shows that visual and vocal cues that highlight racial diversity are likely to trigger stereotyping (Bhappu et al., 1997), such that insights and opinions from those who are different are insufficiently considered (Harrison and Klein, 2007). Racial diversity, in turn, can be associated with emotional and heated interactions (Pelled et al., 1999). Communicating without visual and vocal cues (through Yammer)

rendered racial differences less visible and salient, enabling greater focus on the content. All

of this helped chip away at stereotype-based perspectives and created what several

participants described as a "subconscious baking" of WI into the organization's norms and

culture.

Through Reflecting, employees learned about difficult WI-related topics and about

one another's differences, which reduced stereotyping. They also learned to ask questions and

raise their concerns about difficult topics irrespective of their race and sex, which reduced

segregation. Hiring managers learned about applicants' experiences of non-inclusiveness

during recruitment based on which they took remedial action, which reduced classification.

Table 1. How ICT-enabled Practices Enhance Workplace Inclusion

ICT-enabled practice	ICT and focus of use	How WI was enhanced
Expanding *Facilitated inclusive, diverse and fair recruitment, internally for the company and for clients.*	• **Online gender checkers (Totaljobs Gender Bias Decoder)**: textual bias detection in the language of job advertisements • **Video conferencing applications (Microsoft Teams, Zoom)**: free-form engagement with job applicants • **LinkedIn, Stonewall and the company's website**: reaching a wider pool of applicants • **Chatbot:** developing job applications in a staged manner to make it easy to answer questions and reduce mistakes that may lead to unintended elimination • **Application tracking system – Talent Link and Microsoft Excel**: tracking applications, administering standardized interview questions and anonymizing resumes.	Reduced: Classification and Segregation
Orienting *Top management steered the organization's WI-related activities and signalled the importance of WI.*	• **Enterprise social media (Yammer):** - Visibility and easy reference of WI policy-related documents posted by senior management - Bi-directional communication and transparent and visible discussions on WI policies between top managers and rank and file employees - Feedback from the employees on strategic WI initiatives they wish to see • **Learning Management System (LMS365) and OneDrive:** WI-related induction training	Reduced: Segregation
Enculturating *Employees interacted and socialized to exchange views on and appreciate different aspects of WI.*	• **Enterprise social media (Yammer):** - Anonymous, multi-vocal and ongoing interaction among employees - Conversation channels on specific WI topics - Permanence and easy access to WI-related information and events • **Video conferencing applications (Microsoft Teams, Zoom):** socialization and talks on WI topics	Reduced: Segregation and Stereotyping
Reflecting	• **Video conferencing applications (Microsoft Teams, Zoom):** ongoing brown bag lunch meetings and internal/external speakers on new and emerging WI topics	Reduced:

Employees and top management continually gathered feedback about and analyzed WI efforts within the organization.	• **Enterprise social media (Yammer) and Microsoft Forms:**
	  - Permanent and easy access of WI related information and events
	  - Analysis of engagement metrics such as number of views, likes and length of conversation threads of WI channels; feedback on WI events.
	• **Application tracking system – Talent Link**: analyzing recruitment data and feedback on applicants' experience.
	• **Oracle Self Service:** self-entry of demographics
		Classification, Segregation, and Stereotyping
		
		Enhanced: the practices of Expanding, Orienting and Enculturating

The four practices collectively covered different foci of influence, forming a multi-pronged approach that attended to different facets of the organization's activities. Expanding focused on recruitment, Orienting on senior managers' WI-related interactions with employees, and Enculturating on employees' WI-related interactions with one another. Reflecting had a learning focus in that it constituted activities of WI-related data analysis and insight generation.

Obstacles Signal a Dual Role of ICT in WI

The obstacles to Expanding, Orienting, and Enculturating signalled the paradox that using ICT had the potential to constrain each as well. Interestingly therefore, these practices constituted actions of ICT use that both facilitated and constrained WI. In Expanding, for example, there was a contradiction between the need to maintain confidentiality (by not knowing applicants' demographics) and the need to make sure that the applicant pool was diverse (for which such information was necessary). With regard to Orienting, online training could be perceived as a one-time or sporadic (and forgettable) WI action, rather than as input for an ongoing and continual understanding of WI-related opportunities and difficulties, defeating its very purpose. Responding to inclusion-related posts on Yammer was not mandatory because the very point of such a response was that it should be of employees' own volition. However, not making it mandatory entailed the risk of a lack of response and engagement altogether. The literature comments on several difficulties in achieving WI – such as the lack of benefits of WI-related training and backlash from established groups

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because they feel threatened or forced to engage in conversations on uncomfortable, emotional and controversial topics (Bartels et al., 2013, Brief and Barsky, 2000). In Enculturating, Yammer conversations on race or sexual orientation could turn unintentionally casual and insensitive, stopping the discussion altogether. The obstacles to the three practices complement the findings of existing research by suggesting that the use of various applications, while reducing the conditions that lead to lack of WI, can at the same time constrain these very practices.

Reflecting Shapes and Enhances Expanding, Orienting and Enculturating

Reflecting constituted learning about new WI concepts, understanding the demographic composition of applicant pools and current employees, and analyzing feedback from WI-related socialization, training, and social media conversations to shape future WI-related engagements. It led to awareness, appreciation, and improvement (Schön, 1992; Werner, 2001) vis-à-vis WI.

Awareness is important because it is necessary to be aware of what is going on before trying to identify what needs to be changed (Fogli et al., 2017). The Reflecting practice created an opportunity for a shared understanding (Thunberg, 2011) of various aspects of WI. It led to an awareness of what WI was, what the gender and racial compositions of the organization were, and what type of people wanted to work there.

Appreciation and sense-making of data and events vis-à-vis new learning and prior experiences/ideas are important because they form the springboard from which employees gain new insight and develop interventions (Heiskanen et al., 2008; Prilla et al., 2012; Rouleau, 2005). The Reflecting practice helped employees appreciate and make sense of potential problems vis-à-vis WI, such as a lack of race and gender diversity in applicant pools and existing workforce, or employees' unforeseen reactions to WI-related Yammer postings.

Improvement is important, particularly in uncertain, complex, and ambiguous situations where there is no one obvious solution (Raelin, 2008; Faller et al., 2020), as is the case with enhancing WI. The Reflecting practice helped employees improve the other practices by creating opportunities for questioning based on data and analysis, enabling IS-enabled discursiveness and 'in flight' correction (Mintzberg and Waters, 1990). In this way, Reflecting qualitatively offset the effect of the obstacles. For example, even as it was necessary to avoid knowing applicants' identities in order to maintain neutrality and confidentiality (for Expanding), the '*Who do we think you are?*' project (Reflecting) helped to develop an understanding of the demographic palette of the workforce. This in turn led to continuously greater understanding of where to target recruitment activities (improving Expanding). Even as frank and open enterprise social media conversations on difficult topics came with the risk of conflict (Enculturating), the multi-pronged and ongoing discussion of WI-related ideas on Yammer (Reflecting) enabled people to realize the wider universality of such topics and engage in more thoughtful and sensitive conversations (improving Enculturating). Even though employees were not mandated to respond to senior management's WI-related communication on Yammer and could withdraw from engaging altogether (Orienting), the continual analysis of feedback from WI-related learning events (Reflecting) brought about adjustments in future communication from senior management (improving Orienting).

Thus, we theorize the Reflecting practice as a way of continually improving and refining the other practices through ongoing adjustments such that each practice is always evolving (Germonprez and Hovorka, 2013; Marabelli and Galliers, 2017).

CONTRIBUTIONS AND IMPLICATIONS

In this research, we set out to understand how the use of ICT can facilitate WI. An increasing number of news stories and blogs report on the potential of ICT to alleviate

barriers to inclusion, from removing gendered language in job advertisements to making

employees feel more connected through virtual employee engagement (Green, 2019; World

Economic Forum, 2020). We develop a scholarly understanding of how this can happen and

how our findings may help guide managerial practice. Below, as depicted in Figure 3[1], we lay

out the theoretical contributions and managerial implications flowing from our study, and

their potential for future research, together with boundary conditions and limitations.
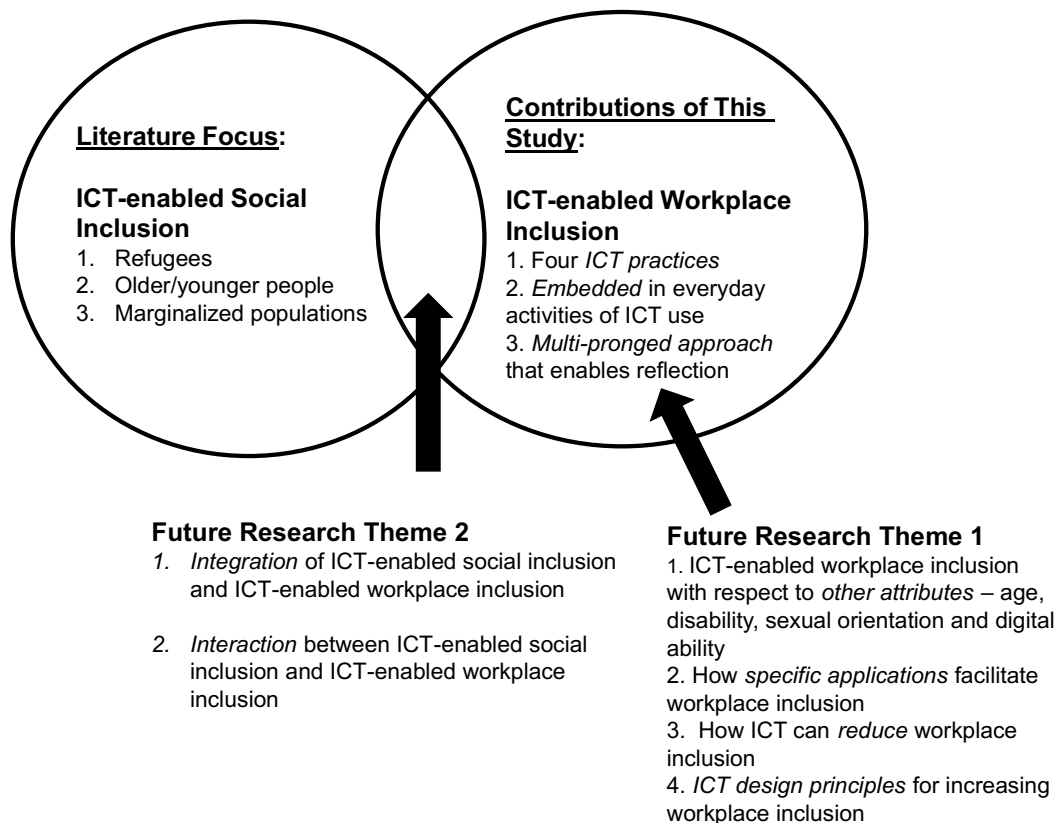
Literature Focus:

ICT-enabled Social Inclusion
1. Refugees
2. Older/younger people
3. Marginalized populations

Contributions of This Study:

ICT-enabled Workplace Inclusion
1. Four *ICT practices*
2. *Embedded* in everyday activities of ICT use
3. *Multi-pronged approach* that enables reflection

Future Research Theme 2
1. *Integration* of ICT-enabled social inclusion and ICT-enabled workplace inclusion

2. *Interaction* between ICT-enabled social inclusion and ICT-enabled workplace inclusion

Future Research Theme 1
1. ICT-enabled workplace inclusion with respect to *other attributes* – age, disability, sexual orientation and digital ability
2. How *specific applications* facilitate workplace inclusion
3. How ICT can *reduce* workplace inclusion
4. *ICT design principles* for increasing workplace inclusion

Figure 3. Contributions and Future Research

ICT-enabled Workplace Inclusion: A New Theoretical Dimension to Information

   Systems Inclusion Research

As shown in Figure 3, the IS literature on inclusion has primarily emphasized ICT-

enabled social inclusion, focusing on how ICT can help in the resettlement of refugees (e.g.,

AbuJarour et al., 2021) and in tackling marginalization faced by certain groups such as

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[1] We thank an anonymous reviewer for suggesting the Venn diagram framing

indigenous communities and rural women (McBride and Liyala, 2021) as well as age-related exclusion (Newman et al., 2017). We extend this literature in a new theoretical direction to shine a light on how ICT can shape inclusion in the workplace. Specifically, we show that WI takes place through multiple ICT-enabled practices embedded in the day-to-day actions of employees. To our knowledge, this is the first study to conceptualize and articulate ICT-enabled practices for enhancing WI. These practices mitigate segregation, stereotyping, and classification, which are known to be stubborn and not easily tractable barriers to WI (Bartels et al., 2013; Amis et al., 2020).

The notion of ICT-enabled WI practices recognizes the importance of everyone participating in WI through ongoing and everyday activities of WI. The focus is not just on what WI program managers implement but also on employees and their everyday WI actions within which ICT is embedded. Such an approach is an improvement over existing studies that examine attempts to achieve WI through diversity-related projects and events and find them exclusionary because the people who are not excluded develop them for those that are (Iivari et al., 2018). Consequently, they do not take into account the concerns and aspirations of the latter. Our approach complements the literature on social inclusion of refugees, which suggests that refugees can find ICT helpful for adapting to life in a new society, when they focus their use of ICT on everyday activities that are of value to them (Andrade and Doolin, 2016).

Furthermore, in revealing the role of multiple ICT-enabled practices, we suggest that WI cannot be achieved through one-off actions such as trainings and workshops as has traditionally been done (Bartels et al., 2013) or through the use of one or two applications; rather it needs to be baked into the organization through a palette of many-hued practices that continually evolve. Thus, we suggest that the role of ICT in enhancing WI is multi-

dimensional, emergent, and embedded rather than limited to a single application or action of use.

ICT-enabled Workplace Inclusion is a Contested Terrain and Needs Vigilance

Despite WI being desirable, literature shows that attempts to increase it can lead to backlash and increased conflict (Pelled et al., 1999). Majority groups can feel threatened because they perceive minority groups as usurping their traditionally-held power (Chemers et al., 1995). They may perceive WI-related actions as reverse discrimination. Cultural barriers between majority and minority groups may become exacerbated. Our analysis complements these studies by highlighting how ICT use also poses obstacles for each practice, which, if unchecked, can substantially derail efforts at ICT-enabled WI.

We go further, however, to suggest that the practices are improved and evolve through reflectiveness. The Reflecting practice is crucial to developing sensitivity, thoughtfulness, and resilience in the contested terrain of WI. It enables alertness to potential missteps and subsequent adjustments. For example, one obstacle to Orienting was top management not realizing the extent to which ethnic minority employees in the company feel comfortable and included. Reflecting allowed senior managers to analyze Yammer conversations and organize online brown-bag lunches on topics that employees wanted to understand more about, such as cultural stereotypes. In this way, the struggles and contentions in each practice were continually tackled through Reflecting. The reflection-oriented aspect of ICT-enabled WI is an interesting contribution to our understanding of WI: despite our observation that ICT-enabled WI is a contested terrain, we also suggest how to navigate this terrain through vigilance and alertness in the form of ongoing reflections enabled by ICT.

ICT-enabled Workplace Inclusion is a Journey That Requires Ongoing and Multi-faceted Action

Ontologically speaking, we suggest that WI is dynamic in that employees continually adapt their actions and goals as they enhance and improve ICT-enabled practices. Thus, our focus is not just on the demographic composition of employees or periodic events, but on ongoing WI practices that are both facilitated and constrained by ICT. A dynamic ontology helps focus our attention on what adaptations are needed to sustain and progress WI. It helps us recognize that it is through the work of continual refinement of each practice that the organization achieves ICT-enabled WI, and thus ICT-enabled WI is a journey rather than a destination. ICT-enabled continual enhancement of each practice through reflection shows that organizations do not necessarily need to start on a large scale. They can start on a small scale appropriate to what their culture and structure allow and evolve through the ongoing evolution of the different practices. For example, a small-wins focused approach has been advocated for reducing gender bias in the workplace (Correll, 2017). Our conceptualization lends further credence to past research showing that one-time events – such as anti-bias training exercises – do not alter employees' behavior, and that they can even be counterproductive by making employees complacent about their stereotypical biases (Castilla and Benard, 2010; Egan and Bendick, 2008; Dobbin and Kalev, 2016). Our theorization indicates that ICT-enabled WI is complex and multi-faceted, and needs to be examined as a collective of relational and dynamic processes; it speaks to the emerging role of ICT, not in supporting fixed organizational structures and hierarchies, but in addressing the iterativeness, (re)alignments, emergence, and tensions of organizational life (Majchrzak et al., 2016).

Future Research

We suggest two broad directions in which our study could open up opportunities for future research, as we show in Figure 3.

Further Opening the Black-box of ICT-enabled Workplace Inclusion

In the first direction, we see opportunities to further open the under-studied black box of ICT-enabled WI. In this study, we examined inclusion as relating primarily to race, gender, and sexuality, criteria that underpin the most prominent forms of inequalities in the UK and in many parts of the world (Kalev and Deutsch, 2018; Ray, 2019). For example, gender and racial inequalities are reflected in the under-representation of women and a lack of racial diversity across many segments of the labour force: persistent pay gaps, discrimination in promotion, reward and retention, as well as workplace micro-aggression. Emphasis on gender and racial equality is thus at the forefront of governmental and policy agendas. Building on our study, IS scholars could examine WI with respect to other aspects of potential exclusion such as age, disability, and digital ability (particularly for work processes informed by AI and predictive analytics). Future research can also take deep dives into the role of specific applications (such as People Analytics) in shaping WI through, for instance, employee performance evaluations. As another example, it would be interesting to study how ICT can *decrease* WI. Our study's obstacles reveal potential ICT-based deterrents to the three practices. Future studies can examine, for example, applications that automate and standardize candidate ranking, testing, selection, and hiring. Applicants have no say in these processes and can get locked out if they inadvertently give incorrect answers to questions such as those about eligibility to work, qualifications and/or work experience. Worse, such mistakes for one job application can lead to rejection from multiple jobs in the case of platforms that pool applicant information across multiple job postings. Future studies can also focus on employee databases, which do not have options for storing fluid or non-binary sexual orientations and are being referred to as the 'next frontier in gender rights' (Broussard 2019). Such investigations could be informed by a critical approach (e.g., Hur et al., 2019) focusing on the potentially *shackling* power of these applications. As a fourth example then,

design-science focused studies could examine how ICT could be used to alleviate some of these very problems, for example through designing systems that follow principles of *emancipation* (Kane et al., 2021).

A Holistic Framing: ICT-enabled Social and Workplace Inclusion

The second direction reveals opportunities at the intersection of research on ICT-enabled social and workplace inclusion. This theme connects and integrates the role of ICT in inclusion at the societal and organizational levels, and would yield insight into how ICT-enabled social inclusion can shape ICT-enabled WI. Studies show that individuals need social, economic, and cultural capital to be able to access and use ICT (Newman et al., 2017). Those from a non-English speaking background and those with low education and income levels often face barriers to internet use (Newman et al., 2010; Goodall et al., 2014). These barriers stem largely from unequal distribution of social, family, and monetary resources for ICT use (Dane et al., 2013). They lead to unequal digital access, thereby reinforcing and amplifying the already existing disadvantages (Baum et al., 2014) in that those who do not already have the resources are further excluded. As organizations are embedded in broader societal settings and structures, it would be fruitful for future research to examine how ICT-driven social inclusion shapes ICT-driven WI, and vice-versa. For example those who are socially excluded vis-à-vis access to resources that enable ICT access would face exclusionary barriers with regard to job applications on online platforms, and digitized job interviews and job selection processes, and that exclusion from job opportunities would further entrench barriers for accessing advanced and expensive non-work ICT.

Managerial Implications

For managers and practitioners who are responsible for organizational WI initiatives, our findings of the four interlinked practices provide a useful paradigm that encompasses a wide spectrum of organizational activities. The practices draw attention to digital tools and

their use specific to WI. Organizations can build a portfolio of ICT applications focused on WI (such as enterprise social networks with dedicated channels of WI-related activity, gender-checking applications for job specifications, application tracking systems that standardize questions and enable necessary anonymization, and video conferencing applications that make hiring interviews more accessible), through which (prospective) employees can engage in WI practices. They can also develop repositories of digital WI content (e.g., training videos, recordings of lunch and learn sessions, enterprise social media posts) and manage them using file-sharing applications. Furthermore, we stress the need to use ICT for continual reflection and analysis to identify and anticipate WI-related problems and roadblocks. Such ICT use includes formal structured analysis of recruitment data from applications such as applicant tracking systems, as well as more informal and unstructured examination of enterprise social media content and feedback on WI events such as brown bag lunches. Finally, we suggest that organizations "do" WI on a continuing basis as they strengthen their ICT-enabled WI practices on their WI journey. We believe this is a message of hope that every organization can progress on such a journey, no matter where they are starting from.

Boundary Conditions and Limitations

We reflect on three boundary conditions. First, given the timing of our study, we reflect on the implications of the COVID-19 pandemic for our research. We were mindful that the pandemic led to a very high incidence of remote work, both generally (Lund et al., 2021) and specifically in our empirical site, where about 80% of employees were working remotely over our data collection period. This in turn increased the use of workplace ICT applications, and likely provided greater opportunity for ICT to support WI. Nevertheless, remote and hybrid work are here to stay (Gratton, 2021). Thus, the organizational processes

we investigated here – such as social media enabled organizational communication and ICT-enabled hiring and recruitment – will become typical in organizations.

Second, our study was temporally proximal to global social justice movements such as Black Lives Matter. Many of our respondents referred to these as socio-cultural processes that triggered not only their personal reflections on WI but also organizational reckoning in general (Lund et al., 2021). This likely increased our organization's inclination toward WI. However, such equality movements are increasingly mainstreaming into the workplace; we expect their influence to continue and potentially grow stronger.

Third, our empirical site is in the recruitment industry. The recruitment sector is particularly relevant for examining WI because it stands at the forefront of organizational initiatives relating to WI. However, the organizational processes we examined are typical ones that characterize organizations in many industries, and the specific recruitment-related processes are relevant to any organization. Furthermore, the practices uncovered in our study are likely to diffuse from recruitment firms to a wider range of industries and organizations through consulting activities. Based on the above, we suggest that our theorization is expected to apply to an increasing range of organizations that have or aim to develop a strategic approach toward ICT-enabled WI.

Our study is subject to limitations. First, the single study site, despite offering rich empirical contextualization, requires caution in generalizing the results without adequate translation. Second, all our respondents were digitally able in that they could use a video conferencing application such as Microsoft Teams or Zoom to undertake the interviews. Related to this, those whom we interviewed might have been more likely to use ICT and thus engage in the ICT-enabled practices. Nevertheless, we expect the selection bias to be minimal in that we verified with our primary contact that the number of individuals in the organization who would not be accessible because they could not use such applications was less than 5%.

Finally, the snowball approach to participant recruitment is subject to possible selection bias in terms of potential homophily among our interviewees (Rienties et al., 2015), which may explain why many of our participants were senior and middle managers. Moreover, WI is a highly sensitive topic, one that not all organizational members may find easy or comfortable to talk about. Such factors could mean that our study did not reveal the "voice" (Lin et al., 2015) of the most marginalized employees, implying a potential under-consideration of the principle of suspicion (Klein and Myers, 1999). However, we do note that our respondents came from eight different departments across all levels, which indicates that our findings represent the views of a wide swathe of employees.

CONCLUDING REMARKS

Understanding the role of ICT in furthering equity and inclusion is an urgent area of research in IS. In parallel, the lack of WI is a strategic and festering issue for organizations. At the intersection of these opportunities, our inquiry into the role of ICT in enhancing WI is situated in emerging scholarly discourse on how IS can further organizational and societal good. Our findings show that WI is not simply or easily achieved by isolated or sporadic one-time use of applications, but pervasively and in a more complex manner through practices of ICT use that span multiple applications, cover different foci of organizational attention, and are deeply embedded in employees' everyday work actions. It is our hope that this study will pave the way for IS scholars to conduct further research in this area.

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APPENDIX

Table A.1. Functions from Which Interviewees Were Recruited

	Function name	Key responsibilities	Interviewees (*N* = 27)
1	**Senior Management**	Overlooking the company's strategic planning and corporate governance	2
2	**Human Resources (HR)**	On-boarding new hires, managing compensation and benefits and ensuring compliance with HR and labour market related laws	3
3	**Learning and Development**	Understanding and monitoring employees' professional development requirements, and developing and delivering workplace training programs, career coaching, brown bag events and a speaker series	3
4	**Internal Talent Acquisition**	Attracting and hiring employees	6
5	**Information Technology Support**	Working with outsourcing vendors to develop and maintain internal and client-facing process/workflow applications, as well as running and providing reports on recruitment analytics.	2
6	**Brand Improvement**	Analyzing, maintaining and improving the organization's metrics in corporate social responsibility aspects, which included organizational climate.	2
7	**Account Management**	Managing client relationships, reporting on diversity figures for client-related recruitment, implementing client-facing processes and solutions (including those relating to WI)	3
8	**Client Focused Operations**	Executing recruitment processes outsourcing for the client organizations	6

Table A.2. Interviewee Demographics

Role	Pseudonym	Gender	Experience in the company in years $M = 11.76$ (years), $SD = 7.91$	Level of seniority
Senior Management				
Managing Director	Henry	male	12	senior
Director of an institute on ethical hiring subsidiary to the focal organization	Arthur	male	20	senior
HR				
Area Director / also Diversity Champion	Abiona	female	23	senior
Senior HR Business Partner	Jewel	female	8	middle
Senior HR Business Partner / also Diversity Champion	Sophia	female	9	middle
Learning and Development				
Head of Learning and Development	Mia	female	11	senior
Learning and Development Business Partner	Linda	female	9	middle
Former employee and currently a WI consultant	Nancy	female	20.8	senior
Internal Talent Acquisition				
Director of Talent Acquisition	Robert	male	25	senior
Head of Talent Delivery	Paul	male	15	middle
Head of Talent Acquisition	Olivia	female	10.5	middle
Talent Delivery Team Manager	Sam	male	4	middle
Graduate Training Scheme Manager	Kayla	female	4	junior
Senior Talent Delivery Specialist	Liz	female	2.5	junior
Information Technology Support				
Deployment Project Manager	Katherine	female	8	middle
Senior Management Information Analyst	Kevin	male	6	middle
Brand Improvement				
Continuous Improvement Lead	Mary	female	18.2	senior
Head of Employer Brand & Attraction	Eve	female	13	senior
Account Management				
Account Director	Emily	female	30	senior
Senior Account Manager/ Social Mobility Champion	Holly	female	13	middle
Project & Engagement Manager / also LGBTQ+ Diversity Champion	Mark	male	10	middle
Client-focused Operations				
Recruitment Processes Outsourcing Operations Manager	William	male	9.5	middle
Recruitment Processes Outsourcing & Managed Service Provider Operations (MSP) Manager	Helena	female	6	middle
Recruitment Processes Outsourcing Talent Manager	Mike	male	20	middle

Recruitment Processes Outsourcing Talent Lead	Grace	female	3	middle
Recruitment Processes Outsourcing Talent Partner	Diane	female	2	junior
Recruitment Processes Outsourcing Talent Specialist	Poppy	female	1.5	junior

Table A.3. Interview Protocol

Topic	Questions
General Familiarity	1. Tell us about yourself 2. Describe what you do at [company under study].
Workplace Interactions	3. Do you have any formal/informal processes in your company to promote workplace inclusion? How does ICT play a role? 4. How are workplace inclusion initiatives implemented – top-down or bottom-up? What are the triggers for the development of workplace inclusion practices? 5. We understand that there is a Yammer channel for workplace inclusion and an annual training program that every employee has to go through. Can you talk about these two programs? What effects are they having? 6. Have there been any instances when you or somebody else posted something in the Yammer inclusion channel, and it led to something being done or not done in terms of inclusion-related conversations or events? 7. Does the company track the impact of its initiative on workplace inclusion? Does anyone look at which of these initiatives are more or less successful? If so, how? Does ICT play a role in tracking this impact?
Hiring processes	8. What sort of data do you collect about applicants that are critical for the ultimate hiring decisions? 9. What are the critical decision points in the hiring funnel? What is the role of ICT in those decisions? 10. Has your company/team faced any challenges in terms of meeting diversity in hiring? 11. How do you sensitize your processes and decision making to potential biases in hiring? Does ICT play a role in it? 12. Do you analyze your historic data on hiring, for example, for the last two/three years to examine the sort of people you have put through the pipeline? What ICT do you use?
Interactions with clients	13. Describe your interactions with your clients on topics relating to hiring laws with regard to representation, compliance, accreditation (e.g., Athena SWAN) 14. Describe the actions you take to anonymize resumes and other application data when selecting and screening applications.
Interactions with industry partners	15. Does [the company under study] engage with other organizations/entities in the industry and outside regarding workplace inclusion? How does such engagement filter into your day-to-day organizational practices with respect to workplace inclusion? How does ICT play a role in it.

Table A.4. Supplementary Data Sources

Data source	How it informed our analysis
N = 4 Organization's hiring/sourcing statistical reports (for the period of January – April, 2021)	This source informed our conceptualization of Expanding and Reflecting practices. It provided insights into the kinds of metrics the company uses to analyze and reflect on the demographics of applying candidates and the sourcing channels they applied from. The diversity reports mainly include the breakdown of total new hires/the new hires by sector and job by ethnicity, gender and age brackets. The reports also include conversion ratios by sourcing channel and capture the number of candidates, who applied from different sourcing channels and the number of candidates who dropped out, as well as at the candidates' pass rate for each channel.
N = 20 Posts on the inclusion related channels on the enterprise social media (Yammer)	This source informed our conceptualization of Enculturating, Orienting and Reflecting practices. It provided insights into the nature of the conversations about inclusion that take place on Yammer, both laterally between the rank-and-file, and between the senior management and rank-and-file. The posts also evidenced the extent to which these conversations are multivocal and engaged.
N = 15 Inclusion related training materials (*N* = 14 lunch & learn recordings and *N* = 1 an induction training pack for employees responsible for recruitment)	This source informed our conceptualization of the Reflecting and Orienting practices. It provided insights into (a) the kind of WI module used during the induction training for the new internal hires; and (b) WI elements used in the annual refresher courses, delivered through an online learning management application (e.g., employees were presented with WI statements that they needed to select the right response to, or with recruitment scenarios discussing a WI issue).
N = 10 Inclusion campaign materials on the organization's external social media and website	This source informed our conceptualization of Expanding and Orienting practices. It provided insights into the content, number of views and shares of the inclusion campaigns (e.g., 'myth busters' on LinkedIn) the organization put together on its social media platforms, as well as how it communicated its WI initiatives.
N = 1 Inclusion policy related documents (Inclusive Workplace Guide)	This source informed our conceptualization of the Orienting practice. It provided insights into the content inclusion related policy documents.

Table A.5. Drivers of ICT-enabled Practices: Themes and Sub-themes

Illustration	Sub-themes	Themes (Name)
'We have [company under study] external career site, a few different places that we advertise. If it's a higher-level role, I would probably post it on LinkedIn as well. We have got access to ATS which is our database. So, we'll go through there and create mailers off searches and key words. We advertise as well on all of the different, like, Stonewall groups' (Grace, Recruitment Processes Outsourcing Operations Talent Lead).	Widening the pool of applicants that applied for the jobs the company listed [gender checker applications; online job boards; LinkedIn; company's website].	**Recruitment and hiring based WI related activities** **(Expanding)**
'When they're doing video calls they're really building that relationship, they're becoming more like friends to the candidates. And, therefore, you get less drop, less people that cancel you at the last minute, or at least they inform you at an earlier date than they would previously' (Helena, Recruitment Processes Outsourcing Operations & MSP Operations Manager).	Engaging with applicants to prevent applicant dropout during the application process [chatbot; video conference applications; application tracking system – Talent Link]	
'About a year ago, we copied all interview questions onto our Talent Link system. You can go on the candidate's profile in the Talent Link application, press 'Perform at interview stage', click what job it is, and all the interview questions are there. I think that's really useful for people who are new to the company – they can just follow a script, or they have the questions to hand – they don't have to search through loads of files and stuff' (Diane, Recruitment Processes Outsourcing Operations Talent Partner).	Administering standardized interview protocols to all candidates for a role [Talent Link].	
'We remove the demographic data from all of the consultants, the talent specialists and talent partners; they can't access any of that. It tends to sit with myself and the talent administrator to be able to view any of that. And then when we send across to the client, we anonymize the data as well. So, they have the candidate number rather than a candidate name. With the client it would only be shared right at the very end of the process once everything's been concluded, and it would just be data, it wouldn't be any candidate details. It would be, for example, x amount of women applied for this and x amount of men applied for this, that would be it' (Helena, Recruitment Processes Outsourcing Operations & MSP Operations Manager).	Anonymizing applicants' demographic data [Talent Link; Microsoft Excel]	
'We've got an inclusive workplace guide. It answers some of the more taboo things. So, it's a really frank way of explaining to people how they might have a conversation with a trans member of their team. So how to actually approach [them], the pronouns they would prefer to be used. Being so upfront with people might be difficult, but these are the authentic ways in which you can express your interest. And we were able to connect the guide to other content in such a way that people could hear someone talking rather than reading a policy. So that's a really useful way of us using Yammer' (Sophia, Diversity Champion, Senior HR Business Partner).	Creating and increasing the visibility of the company's inclusion policy documents developed by top management [Yammer]	**Senior management driven WI related activities** **(Orienting)**
'In the past it was very difficult to talk about race and we know that people sometimes deny that stuff's happening. But [the company] was very open to people coming onto our Yammer channel and voicing their opinions or posting whatever they wanted to post. And because everyone has got	Having bi-directional and open communication between senior managers and rank-	

access to it, they can go on there, they can read it, view it, they can comment and like it. They can put posts or comments, or questions, or queries. We had a lot of engagement, not just from our rank-and-file, but from the top management and our support services as well. And also, it's been quite good for the company, in terms of having access to our top managers. We've got [a] managing director who would put his blogs on there, which has been really good, because we never had that. We know they're there, but on a weekly basis he gives us an update' (Abiona, Diversity Champion, HR Area Director).	and-file employees [Yammer]	
'For the induction training [for the company's new hires], we don't need to make the WI scenarios up, because there are so many real-life things happening in the business. So, there was one scenario when the client told our hiring manager that they want a female candidate, who must be white. We put that scenario in the training [and ask new hires what they'd do]' (Mary, Learning and Development Business Partner).	Conducting online WI-related induction trainings [Learning Management System LMS365; OneDrive]	
'For Islamophobia awareness we didn't have as much research as we wanted, so we [L&D team] went out to the business to pull together what we need to cover. And, in the end, it worked out really well, because we had people within [company under study] that said, "Actually I can educate you on that". And then we all pulled together, and they ran the Lunch and Learns with us, which were really popular' (Linda, Learning and Development Business Partner).	Employees engaging in informal conversations about their experiences related to WI [Yammer; video conference applications]	
'But also knowing that Yammer is a safe space for them to talk, because sometimes you may feel that "If I say something I may get into trouble". No, that is far from it. So that technology of Yammer has really helped everyone be a bit more confident in expressing their feelings and saying things that they probably wouldn't have said before, including me' (Abiona, Diversity Champion, HR Area Director). '*Some people who, maybe, wouldn't be comfortable talking in a face to face or an open environment probably do feel comfortable in that forum [Yammer], so, it's giving a way to communicate. I think that the glue to it is keeping it on the agenda and continuing to talk about it. Because actually I think most of our initiatives just come from conversations and people saying "Have you seen this article?" Or "Actually, this is a problem". And the conversation will generate the activity which will generate the improvement'* (Mary, Continuous Improvement Lead). *'So, when we had the webinar where we were talking about race. I think the title was "Are you comfortable talking about race?" I deliberately didn't pick a black panel. I deliberately picked a panel full of white staff, because I know that every person from an ethnic background – they're comfortable talking about race. We don't have a problem talking about race. When the general population of [company under study] saw that the panel wasn't even black, that alone was a message sending to people that, you know, we are happy to go and talk about those difficult conversations, because if we don't have those difficult conversations, we're not going anywhere'* (Abiona, Diversity Champion, HR Area Director).	Employees having difficult conversations and dialog on sensitive topics [Yammer]	**Informal interactions among employees in relation to WI** **(Enculturating)**
'Within [company] you might just work in a bit of a silo; you have mostly close contact with the people in your own	Employees meeting new colleagues or	

branch or your region. So, those Yammer posts have been keeping us up to date with people and their stories and everything. We've been able to keep that feeling of [being connected to a diversity of colleagues going]' (Emily, Account Director). *'Yammer allowed us to create groups which we wouldn't have accessed before. You would have had to have been invited to that group, you might have had to have travelled to be part of it. The most you might have got is some notes that this group met. But now you can actually hear it, be part of it, take part in it'* (Emily, Account Director).	being part of new work-related teams and groups [Yammer; video conference applications]	
'So, if you take International Women's Day, for example, there's a desire to want to do something there. Now, is that just a post to say "We're celebrating the day", or what is it? How does that feel and look like in [company] as an organization? And trying to engage people in that way, and we're using Yammer to get those conversations going and get the ideas generated, which then forces the agenda for the employer brand, for our attraction, in a more urgent way' (Robert, Director of Talent Acquisition).	Ongoing exposure to and understanding of WI-related ideas [Yammer; video conference applications].	
'From an internal point of view, I look at the analytics that we can collect through Yammer: so, the engagement, has the Yammer Inclusion channel grown, likes and comments on posts, people wanting to get involved in things' (Eve, Head of Employer Brand & Attraction).	Analyzing the impact of the WI-related event recordings [Yammer; Microsoft Forms].	**Activities that focused on continuous WI-related learning** **(Reflecting)**
'We prefer to attract a high rather than low volume of applicants. So, we monitor what online job boards are performing well and getting rid of those that don't, that don't give us anything. [Name of an online job board] is a fantastic example, it reported to us that they had 17,000 people look at our roles over the last year. And, yet, when I looked at my system, we only had in the region of about 230 people actually click on the apply button in the end' (Mike, Recruitment Processes Outsourcing Operations Talent Manager). *'We've been capturing the data and looking who's going into the process, who's coming out of it and doing quite a lot of reporting. We are beginning to drill down much more into the process and looking at specific blockers in the process where we can start to open up. So, where we know that the demographic in a particular location is x and we want to move towards that, so we're looking at our end-to-end process. How can we open up the process to make sure that everybody can access that process in the right way and that's appealing for all diverse audiences?'* (Mary, Continuous Improvement Lead).	Analyzing recruitment data [Talent Link]	
'There is a challenge of collecting demographic data. In terms of getting people to declare it when they join the business or when they start the recruitment process – you know, you haven't [yet] got that level of trust, you haven't built that relationship and openness. So, we have the campaign "Who do we think you are?", to reengage everyone, once they've joined [and built trust/confidence], so that we've got a more accurate reflection of the workforce' (Mary, Continuous Improvement Lead).	Ongoing familiarization of the workforce demographics [Yammer; Oracle self-service].	

Table A.6. ICT-enabled Practices Reducing Barriers to WI

ICT-enabled practice	Examples of themes	Illustration
Expanding	– reduction in **segregation** by enhancing transparency in the hiring process.	*'We use feedback at all stages. Not least because we can keep that feedback within our system, and we can refer back to it, if that candidate then applies for a similar job again later. We can represent the candidate saying, "Well, the feedback from the last interview was that they came a close runner up, therefore, we're representing them to you". We can also provide that feedback back to the candidate because we find that the candidate wants to know where they failed so that they can then address that themselves'* (Mike, Recruitment Processes Outsourcing Operations Talent Manager).
Orienting	– reduction in **segregation**, by enabling all employees access to and to give inputs in framing the organization's strategic stance toward WI.	*'I just think in terms of consolidating everything and making sure that everybody gets the same experience, Yammer is useful because everybody's reading the same information. You haven't got, like, a team leader or a line manager talking you through it, you're reading it for yourself, you're taking your own views on it. You're all taking the same kind of learning, irrespective of whether you are a line manager or a junior employee. It [Yammer] just makes it more streamlined and more consistent'* (Mary, Continuous Improvement Lead).
Enculturating	– reduction in **stereotyping** by enabling employees to become aware of, understand and appreciate mutual differences.	*'Learning and Development also make animations. And they've just done a great one on LGBTQ stereotyping. They're really effective. When I was watching the LGBTQ one, I was, like, "Oh I've never heard of 'pansexual'". And I was thinking, "Oh, that's all new to me". I didn't know quite a lot of those things. You know, I self-identify as lesbian, but I'm not a campaigner, I've never been to Pride or anything. I don't have a problem with it, but I've just never been. And I think the assumption is "Oh, like, because you're that, you are also a human rights campaigner". They made some really good content'* (Eve, Head of Employer Brand & Attraction).
Reflecting	– reduction in **stereotyping** by increasing employees' awareness of WI related topics	*'We have a portal on the intranet where you can submit ideas [on inclusion], and one of the ideas was actually launched and the co-member got £100 as a thank you. So, any ideas that you have got on there are taken seriously. If they like your idea, you get rewarded with money, and then it's launched, which again has really helped with the stuff around inclusion and belonging. Our senior sponsors have encouraged people to come and share their thoughts around where do we need to focus more and what are we missing. So, some of the trans awareness stuff – how do you approach a candidate who is also in that situation, and how do we ensure we treat them with respect and use the right name and the right pronouns and things like that [came from such ideas]'* (Linda, Learning and Development Business Partner).

Table A.7. Obstacles of ICT-enabled Practices

ICT-enabled practice	Examples of themes	Illustration
Expanding	- some applicants being less technology proficient or having specific conditions such as dyslexia; - some applicants not having access to a computer or the Internet; - collecting nuanced applicant-specific information; - assessing contextual soft skills; - preserving anonymity.	Preserving anonymity: *'It is done for most instances. We have a spreadsheet, where we're giving them individual ID numbers. But we cannot make certain [job applications] anonymous. For example, for [x recruitment project], we can't hide the name of the applicant because it is lab-based, and we need to have the name of the lab'* (Poppy, Recruitment Processes Outsourcing Operations Talent Specialist).
Orienting	- 'inclusion' meaning different things to different organizational members; - lack of engagement with the WI materials posted online among some organizational members; - lack of understanding of less apparent types of demographic characteristics; - senior managers at times posting insensitive comments on Yammer; - 'rainbow washing'.	The risk of not conveying a compelling and persuasive narrative based on substantive WI activities, 'rainbow washing': *'I was quite conscious, I kept saying to the diversity champion, "We can't just keep asking our Black and Asian co-members to supply us with content", because at some point, they're going to turn round and say, "But what is [company] doing for me? You want me to tell everybody what a great place it is to work as a black person, but what else is there for me as a black person?" And so, I wanted to make sure things, like, the race and ethnicity mentoring schemes were actually put in place and that the diversity champion was approachable, and that people felt they could have these open conversations'* (Eve, Head of Employer Brand & Attraction).
Enculturating	- day-to-day language at times found offensive; - not all employees viewing and participating in WI-related conversations on Yammer.	Fear and uneasiness: *'It takes time to educate some people on, maybe, the experiences they'd had and open it up so that people trusted that they could share their feelings and their experiences, but in a safe environment. So, we did an internal campaign for Black Lives Matter [on Yammer], whereby we actually had quite a big network of people who were sharing their own stories and discussing things that almost had previously been taboo, I guess, to people, like, discussing the language as to whether you would refer to somebody as black or brown or colored. The really personal experiences of people have made it a little bit more accessible to have the conversations in a safe way without fear of getting it wrong'* (Sophia, Diversity Champion, Senior HR Business Partner).

Table A.8. Reflecting Practice Interacting with Other ICT-enabled Practices

ICT-enabled practice	Examples of themes	Illustration
Reflecting shaping Expanding	- analysis of recruitment data helped assess applicant demographic underrepresentation and influenced the company's hiring strategies for internal and external recruitment; - analysis of conversations on Yammer and the results of the *'Who do we think you are?'* project helped reconceptualize the demographic composition of the company externally and attract a more diverse pool of applicants.	Analysis of recruitment data influencing the hiring strategies: *'One of the first things that we always look to do to inform our hiring practices is look at the data. In our system, we are able to gather diversity data at every step throughout the process. We're also able to hold that diversity data separate from any other data that is shown to any people who make recruiting decisions. So, we can see at what point people from different ethnic groups or from different genders, who are applying for roles, fall out of the process. We're also able to display that data in many different ways. Our dashboard that is built into the system means that within just two clicks you can see a whole suite of graphs for all of the EDI characteristics. We can drill into that data further, analyze it, and use it to inform our client's or our own decisions of how we're going to move ahead'* (Mark, Project & Engagement Manager, LGBTQ+ Diversity Champion).
Reflecting shaping Orienting	– analysis of WI events and posts on Yammer helped identify topics that resonated with employees and informed strategic areas of WI work in the company; – analysis of Yammer conversations led to continuous learning about WI among senior managers and diversity champions; - analyzing the impact of WI-related events and discussions on Yammer helped reveal areas of concern; - analysis of the Yammer conversations and the impact of WI events led to changes in the induction training materials.	Analysis of WI events and posts on Yammer informing steering of WI in the organization: *'Looking at the inputs from quite a few people from an ethnic background, sometimes you get the impression that they wish that they could have been doing more. But sometimes they don't know how to go about it in the right way. And what we did was to start mentoring people. We have launched our mentoring race and ethnicity scheme. We've got board members who are willing to mentor people from an ethnic background. We've got mentees who have now put their hands up to say they want to be mentored'* (Abiona, Diversity Champion, HR Area Director). Analysis of Yammer conversations led to continuous learning about WI among senior managers: '*We have recently also decided to launch a reverse mentoring scheme [a junior employee from an ethnic background mentoring a senior manager]. Reverse mentoring will make people a bit more empathetic towards what people from an ethnic background go through. Sometimes these are very subtle, not obvious things. But, you know, just getting a bit more empathy around diversity and inclusion, making sure that people feel included*' (Abiona, Diversity Champion, HR Area Director).
Reflecting shaping Enculturating	– 'Who do we think you are?' initiative and Yammer posts helped employees understand one another's demographic attributes better; – analyzing the questions where many people chose the 'Prefer not to answer' option helped diversity	'Who do we think you are?' campaign and Yammer posts helping employees understand one another's demographic attributes better: *'So those Yammer posts, keeping us up to date with people and their stories and everything. It's being able to keep alive just who's who in our organisation, where they are'* (Emily, Account Director). Analyzing the questions where many people chose the 'Prefer not to answer' option to identify potential problem areas:

	champions identify potential problem areas.	'*With our "Who do we think you are?" project we are going to assess the take up on people providing their information and then maybe compare that year on year and see if the percentage of uptake changes. Another big part of our understanding of our WI journey will be analysing engagement on the Yammer channel and the kinds of experiences people share*' (Sophia, Diversity Champion, Senior HR Business Partner).

Figure A.9. Anonymized Yammer Post as an Example of Reflecting Practice

I&B in March!

March plays host to International Women's Day (8th) and International Transgender Day of Visibility (31st); therefore this month at   we will be shining a light on gender inclusivity.

I'm excited to announce that on International Women's Day on 8th March we will be hosting a Lunch & Learn with the Women in Leadership Senior Sponsors:
                    and   .

We would like for this Lunch & Learn to cover topics that matter t... see more

Lunch & Learn
Monday 8th March – 12:30pm

International Women's Day: Choose to Challenge

👍 Like   💬 Comment   📤 Share ⌄   👍❤️👏   and 24 others

Collapse
👍 4

Mar 1
Thanks   , looking forward to the Lunch & Learn session next Monday, on what is a very important date in the calendar!
cc:

👍❤️ 10
Mar 1
Such a great panel! A question from me would be 'what are some of the ways that well meaning men can get it wrong when trying to support women in(to) leadership in the workplace, and how can we do better?'

in reply to   Mar 2
Love this question   ! Can't wait to hear the answer on the L&L!

👍 4
Mar 2
Really looking forward to this and love the question   ! To book this in your diary with the teams link click here and scroll through to add to your calendar.

👍 1
Mar 2

👍 1
Mar 2
My question to the panel would be... What do they "Choose to Challenge"....

👍 2
Mar 3
Thank you for sharing   , I've got this added to my calendar!

My question would be 'What has been the most useful 'thing' to allow you to get to where you are in your career today?'

Apologies I know 'thing' is a really vague word, I just couldn't think of a better word that would encompass all the possibilities to that answer (i.e. skill, motivations, someone who opened doors to them, etc) but hopefully that makes sense or feel free