Calling Out and Calling In: Women Undoing Gender in the ICT Industry

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ABSTRACT

It is well established that women face barriers to successful careers in Information Communication Technology (ICT) due to gendered industry norms and discrimination. What is less well known is how women take action to challenge these norms. This study, based on 12 semi-structured interviews with senior women in ICT in Aotearoa-New Zealand, found that women actively sought to challenge men's discriminatory behaviour and comments. While their actions broadly fell into categories of 'calling in' and 'calling out', there was a preference to use 'calling in'. Despite the women's own perceptions that 'calling in' was more effective, this study instead finds that it perpetuated gendered stereotypes of acceptable behaviour for women in ICT.

Keywords: *Gender and work, Women in Technology, Calling in, Calling out, Professional Services*

INTRODUCTION

This research is situated within the context of Information and Communications Technology (ICT), which broadly encompasses professional occupations in knowledge and service areas of Information Technology (IT). Studies of women's careers have largely either highlighted the differences between men's and women's careers, or used the male career as the norm from which to measure women's career pathways and experiences (Mutter & Thorn, 2018). While there is considerable research understanding the general barriers or gender discrimination that women in ICT face, there is less focus on the change that women create in the industry through actively challenging discrimination at work. This paper, therefore, asks how women challenge gender discrimination within the IT industry.

Under-representation occurs at all levels of ICT, although there is greater representation of women in non-technical roles within the industry (Courtney et al., 2009), reflecting societal expectations of the types of work or roles that men and women are better suited for (Ballakrishnen, 2017). Furthermore, there is still a dearth of young women entering ICT – perhaps because it is a male dominated industry, and because of a lack of women role models in senior positions (Segovia-Pérez, et al., 2020). Under-representation of women in ICT has ramifications for women's opportunities now (Kirton & Robertson, 2018) and in future because technology-based roles are likely to become more important across a range of professions and organisations

(Armour & Sako, 2020). Additionally, under-representation of women in ICT can contribute to longer term skills and labour shortages across organisations and industries.

The following sections review what is known about barriers to women's careers within ICT and position the paper within the 'doing and undoing gender' framework. It then highlights the lack of attention in research to newer forms of action that women take, 'calling out and calling in'. The use of exploratory qualitative research is then explained before presenting the emerging themes that identify how and when women use direct confrontation, formal organisational processes and problem solving to challenge gender discrimination.

GENDERED BARRIERS TO WOMEN IN INFORMATION TECHNOLOGY

Research into the gendered barriers for women in ICT can be broadly categorised into two key categories: industry norms of the ideal male worker, and social interactions within workplaces. As in many other male-dominated industries, the ICT industry is often characterised by the ability to work long hours, travel and be accessible 24 hours a day (Holth et al., 2017). There have been many studies that highlight this long hours work culture. This is, perhaps, due to the nature of the industry, which is described as fast-paced and ever-evolving (Ajayi & Udeh, 2024), often requiring ICT professionals to be accessible 24/7, just like technology (Holth et al., 2017). These organisational structures and norms maintain assumptions that employees are 'ideal male workers' with little responsibility outside work, enabling a 'work first' orientation (Acker, 2006; Hari, 2017).

A key reason women leave the ICT industry is because they struggle to maintain work life balance due to working long hours and having large workloads (Griffiths & Moore, 2010). Despite the introduction of work-life balance policies to encourage women to stay in the industry, in practice these do not change underlying organisational norms, and can be weakened by being subject to individual managerial discretion (Hari, 2017). Indeed, gender norms within the industry are often based on assumptions that women are unreliable because of care responsibilities (Alfrey & Twine, 2016; Crump et al., 2007). Servon and Visser (2011) highlight that if female employees take career breaks, they may be stereotyped by management as not being committed to their career. Other examples of discriminatory practices are the exclusion of women upon their return from parental leave by not providing them with a dedicated workspace within the team or denying them training or other events with career development opportunities (Cater-Steel & Carter, 2010).

Women's career progression in ICT has also been hindered due to gendered stereotypes and assumptions of both women and men within the industry, associating masculinity with technical expertise (Kenny & Donnelly, 2019; Kirton & Robertson, 2018). Such thinking assumes that women are better placed in administrative or project management roles, not technical roles (Kelan, 2010; Kenny & Donnelly, 2019). These gendered assumptions are maintained through the downplaying of women's skills and achievements (Smith, 2013) because technical expertise is associated with masculinity and men. The emphasis on technical skills leads to task gendered segregation in which women are directed into roles which involve traditionally feminine characteristics, such as soft and interpersonal skills rather than technical or senior leadership roles (Acker, 2012). This results in a gender essentialism that can require women to be 'gender chameleons', showing stereotypically masculine traits in some settings, yet 'womanly' caring in others (Ballakrishnan, 2017).

How men and women interact, and the way in which social interactions maintain gender biases within ICT are integral to organisational culture (Sáinz & Eccles, 2012). Gendered stereotypes of women in ICT are maintained through social interactions in the workplace such as overt discrimination, micro-aggressions, informal discrimination, and negative assumptions about skills and capabilities (Kenny & Donnelly, 2019; Kirton & Robertson, 2018; McGee, 2018). Other social interactions that discriminate include put downs in meetings and sexist jokes (Griffiths & Moore, 2010). Overt gender-based bullying and discrimination occurs, such as open comments on women being the token girl (Kirton & Robertson, 2018) and men keeping a tally system of the number of women who have cried (Cater-Steel & Carter, 2010).

Women in ICT are often very conscious of their behaviour and how it impacts perceptions of them at work (Kirton & Roberston, 2018; Trauth, 2002). Examples of such behaviour includes participating in masculine conversations (Griffiths et al., 2010) and trying to disconnect from their feminine stereotypes by adopting perceived masculine behaviours and norms such as being 'strong' women (Kirton & Robertson, 2018). Other strategies women use include using only technical language in discussions with male colleagues to highlight their expertise (Kenny & Donnelly, 2019; Smith, 2013). Because femininity is perceived to be undesirable (Kenny & Donnelly, 2019), research has identified that some women end up portraying themselves as logical, less social than other women, competitive and highly ambitious to gain access to and acceptance in the masculine culture (Trauth, 2002).

These strategies, however, are more focused on playing to, rather than challenging, industry gender norms. Such strategies, arguably, perpetuate gendered norms, and reinforce stereotypes of women in ICT (Lagesen, et al., 2022). As Kenny and Donnelly (2019) point out, adhering to expected norms of gendered behaviour means that women are often shut out of higher status, more technical jobs in ICT; which in turn contributes to perceived 'women's jobs' in ICT being remunerated and valued much less (Crump et al., 2007; Kirton & Robertson, 2018).

Change agents undoing gender?

While research has identified some of the strategies women have taken to stay in ICT, these strategies have been more adaptive to 'survive' and tend to perpetuate the very gender discrimination that is a barrier to women. What is missing from that literature is an understanding of the way in which women take action to challenge or dismantle gendered stereotypes, assumptions and discrimination.

One way of looking at how gender norms and discrimination are perpetuated or challenged is through the concept of 'doing gender'. The concept of doing gender describes the way in which gender is constructed and reconstructed as a social practice (Nentwich & Kelan, 2014; West & Fenstermaker, 1995; West & Zimmerman, 1987, 2009). People perform gender according to the perceived acceptable roles for men and women (Billing, 2011; Deutsch, 2007; West & Zimmerman, 2009). These interactions, performances of gender, reinforce and perpetuate gender discrimination that has arisen from patriarchal views of the 'natural social order' (West & Zimmerman, 2009). Gender norms and inequalities are maintained and reinforced within organisations and at a macro or industry level (Acker, 1990; Bierema, 2016; Billing, 2011). Women are not encouraged into IT subjects at school, for example, and they are then segregated into ‘women’s occupations’ within the industry. At the organisational level, the way in which women adhere to gender norms and tolerate sexism, as outlined in the previous section, is part and parcel of these processes and is well understood. What is much less known, however, is how gender norms and discrimination might be 'undone' within the organisational context (Deutsch, 2007; Kelan, 2010).

This study focuses on the context of ICT; there is little research in general, let alone focused within the ICT industry, that explores how women 'undo' gender. Some research has argued that women, just through holding managerial and senior roles in male dominated industries are challenging gender norms, and thus beginning to 'undo' them (Kelan, 2010). However, Stainback, Kleiner, and Skagg (2016) found that what was important to women being represented in senior roles was their access to organisational power. This means that those senior women are more able take action against discriminatory practices and behaviours.

Overall, there is scarce research positioning women as agentic, focusing on the actions they take to challenge gender discrimination at the workplace. Instead, research has focused more on the incidence of gender discrimination at both workplace and industry level, identifying barriers to women in ICT, but not the changes that those women make (Crump et al., 2007; Kenny & Donnelly, 2019; Kirton & Robertson, 2018; McGee, 2018; Nentwich & Kelan, 2014). It could be argued that one consequence of a lack of attention to how women challenge gender norms and

discriminations is that research to some extent perpetuates those gender norms through failing to view women as agentic players in the workplace. Deutsch (2007) has suggested that research should, therefore, focus on change when considering how gender is done within workplaces and industries.

Call out culture

While understanding organisational culture is crucial to undoing gendered norms and discrimination, these norms are influenced by the broader social context of ICT (Nentwich & Kelan, 2014; Ravenswood & Harris, 2016; West & Zimmerman, 2009). Indeed, Kelan (2010) points to the importance of social movements for destabilising gender norms and creating change. One social movement that has arisen in recent years and has challenged gender norms and discrimination is the #metoo movement. This global movement initially centred around high profile legal cases being taken for workplace sexual harassment and violence towards women who could not speak up because of both social norms and the inherent power of the men who harassed them. The #metoo movement led to the phenomenon now known as 'calling out'.

'Call out culture' is found in social justice advocacy and microaggression counselling studies (DiAngelo & Sensoy, 2014; Thurber & DiAngelo, 2018). 'Call out culture' refers to the way in which perceived negative behaviours or language (often around racist or gendered topics) are confronted (Woods & Ruscher, 2021). 'Calling out' is when negative behaviours are confronted and challenged publicly. Thurber and DiAngelo (2018) argue that calling out behaviour can be problematic as it focuses more on shaming the individual's behaviour rather than allowing the individual to recognise their wrongs. It has been labelled 'performative', perhaps more about confirming the behaviour or beliefs of the person doing the 'calling out' (Woods & Rushcher, 2021). In contrast, 'call in' culture is where people are confronted in private – out of the public view. It is perceived to be a more sensitive way to respond to discrimination, allowing the person being confronted to acknowledge their mistake and re-evaluate their behaviour (DiAngelo & Sensoy, 2014; Thurber & DiAngelo, 2018).

'Calling in' is viewed as a "compassionate teaching moment, not as an opportunity to self-promote" whereas public call outs are much more likely to result in the perpetrator changing their behaviours than 'call ins' (Woods & Rushcher, 2021, p. 51). Furthermore, 'calling in' may also be the result of those in a minority conforming to the dominant expectation of 'respectable' diversity and challenges (Woods & Rushcher, 2021): protecting men's self-concept of themselves as 'good' people (Crowley, 2023). Calling out and calling in are actions that are aimed at changing other people's behaviours and beliefs, rather than the examples given above of adaptive actions taken by women to change their own behaviours at work for success in the ICT industry.

While the barriers to women's participation in the ICT industry are well known, there is relatively little known about how women take action to change challenge gender discrimination at a workplace level. This is a significant lacuna, given that extant research points to adaptive actions women take to cope and which generally do not challenge the underlying gender norms that inform discrimination. Consequently, there is less known about how women may use tactics such as calling out and calling in that have become more widely known through social movements and social media.

METHODOLOGY

This research is exploratory in nature and aims to understand how women managers in ICT undo gender. Given that there is less research understanding what women do to create change than identifying barriers to their careers (Segovia-Pérez, et al., 2020), a greater understanding of behaviours and tactics to create change is warranted. This research employed the Interpretive Descriptive Methodology which is useful for exploratory research as it is inductive and does not rely upon prior theoretical assumptions (Smythe, 2012). Interpretive descriptive methodology is also suitable for studies which focus on a small sample, which aim to collect detailed data, identify

participants' characteristics and develop patterns and themes (Thorne, 2008). Thus, this methodology aims to hear and describe the voices of participants and interpret findings which are based on participants' experiences (Smythe, 2012). Furthermore, the methodology is framed within a critical feminist paradigm that aims to centre the experiences and voices of women because of the gendered power dynamics within the ICT industry (Coleman 2009; Guba & Lincoln 2005).

Convenience sampling was chosen to identify participants for this study. It is a process where the researcher evaluates potential participants who are willing to participate in the research by proximity and accessibility (Etikan et al., 2016). Convenience sampling allowed the shared experiences of the participants to be described, which directly links to the interpretive descriptive methodology (Thorne, 2008).

The selection criteria for participants were that they would be senior women in ICT, with a minimum of two years working in a leadership role in the ICT industry. An element of seniority, leadership or at least managerial authority was needed because previous research has shown that women in more senior positions have more access to organisational power and are therefore more able to effect change should they choose to (Stainback et al., 2016).

Semi-structured in-depth interviews were used to interview twelve female leaders in New Zealand's ICT industry. Semi-structured interviews allowed the opportunity for the participants to explain their early experiences and to provide the context of their career experiences (Rubin & Rubin, 2005). Although it was a small sample size, it was appropriate for the research, and well within the bounds for data and meaning saturation in in-depth qualitative research (Henninck et al., 2017).

Thematic analysis was chosen as a qualitative data analysis method which enables a rich description of data sets and interpretation of the research topic within its context (Braun et al., 2019). This directly links to the interpretive descriptive methodology, which aims to describe and interpret participants' voices (Smythe, 2012). Braun and Clarke's (2006) six steps of thematic analysis were followed:

1. Becoming familiar with the data through re-reading and writing down initial ideas.
2. Developing initial codes linked directly to the research question.
3. Aligning developed codes into themes.
4. Evaluating and reviewing the themes.
5. Defining and naming the themes and ensuring they link directly to the codes.
6. Reporting data analysis.

Figure 1 illustrates the analytical process, with examples of how quotes related to subthemes (based on initial codes) and overarching themes.

Additionally, the analytical process included member checking amongst the research team whereby one researcher would discuss their preliminary themes with the others (Flick, 2018). This reflective process ensured rigorous analysis, with an opportunity for the research team to clarify the process, confirm themes, and question any potential bias (Haynes, 2012).

Figure 1: Analytical process for theme development

Interview quotes	*Sub - Theme*	*Theme*
I just turned around and looked at him and went, actually, Matt, I got the job because I'm actually better than you and everyone else that applied. Thanks for that. (Alex)	*Direct confrontation*	*Calling out behaviour to address gender discrimination*
Before I was in leadership roles, I definitely had a few challenges with blokes that I worked with and my approach was fairly robust, and I am great at even telling people to f*** off if they're annoying... (Lucy)		
Absolutely talk to HR. There's no way I was going to have that... there was no way I was going to be called out because it was going to undermine me if I didn't take some action. (Jess)	*Formal organisational processes*	
There were some conversations had and that the person came and apologised and said that they upset me? And I said you absolutely you did you were out of line. Since then we have a really good relationship (Jess)		
After three weeks in the job, I took him out for a drink. I said, look, you can't keep treating me like this, it's not going to work. … … all you need to do is tell me what you're thinking, what you think the problem is and I will sort it for you, and he did. He backed down (Rose)	*Problem solving to challenge gender discrimination*	*Calling in behaviour to address gender discrimination*
We talked about it at our next leadership meeting…. Just because I'm a woman doesn't mean that I should be doing all the admin, or the PowerPoint, or, and I'm not actually, no longer going to help you guys out. Or I'll continue to help you guys out but you guys actually can't forget me again. It's just not acceptable...(Kate)		
I literally... like if somebody turns around and calls me his wife (in a conference), I go actually I'm dah, dah, dah, and I kind of just give them a bit of a look as if to say really? We're doing this are we? Then they realise that they've been a bit of a d*** (laughs). (Daisy)	*Use of humour*	
it's certainly very male dominated and the older engineers are very, very sexist. They have no intention to be mean or cruel, to put you down, but I would be asked once a week to do some print outs or take some notes and I just don't do it. I go, oh my goodness. I said, I can't get that printer to work for me. I laugh it off. I use a little bit of humour. (Rose)		

FINDINGS

Participants were asked to talk about their careers in ICT and how, or if, they had taken any actions aimed at changing the gendered norms and discrimination within the industry. All participants experienced various forms of discrimination such as being left out of conversations, overlooked for career opportunities and segregated out of technical roles. Some experienced discriminatory comments, such as their promotion being discredited as being for 'diversity reasons'. Others experienced discrimination in the form of being assigned more administrative 'female' roles in meetings, whereby they were expected to be willing and able to take notes and minutes recording the meeting's decisions. Discrimination also occurred at times through participants not having the opportunity to speak or having their opinions side-lined. Direct discrimination was experienced from supposedly well-meaning comments received about appearance and being someone's 'work wife'.

Although 'calling out' was a shared experience among participants, various approaches were used, such as calling out gendered behaviour through direct confrontation, taking action through formal organisational processes, adopting a problem-solving approach, and employing humour to address discriminatory behaviour from colleagues.

Direct confrontation

Some participants explained that when they were undermined by male colleagues, they challenged this behaviour through direct confrontation. Lucy explained:

> *Before I was in leadership roles, I definitely had a few challenges with blokes that I worked with, and my approach was fairly robust. I am great at even telling people to f*** off if they're annoying... Certainly, I had a few run ins with male colleagues in the early days when I was in my 20s. It didn't upset me. It kind of made me angry. I wasn't going to be pushed around and I made it bloody clear…. I think they got the message.*

Alex highlighted that it was important to not allow others to discount your own efforts when working in a male-dominated industry. She also used direct confrontation when challenging the undermining behaviour of her male colleague:

> *When I moved into the GM role, I had a guy (who I also knew wanted the job) come up to me and he was like, "oh that's really great that you got it. I know the company's really trying to get more women into management roles"... I just turned around and looked at him and went, "Actually, John, I got the job because I'm actually better than you and everyone else that applied. Thanks for that".*

Lucy and Alex did not explain how this direct confrontation was received by their colleagues, but they did emphasise that confrontation changed the negative behaviours of their male colleagues. In contrast to Lucy and Alex, Rose used direct confrontation to support other female colleagues who were experiencing sexist behaviour:

> *We had a young engineer who had a senior engineer come up to her and said to her, 'you're too pretty to be an engineer'. What happens is they come to me; I haul up the guy because they feel they can't complain, but they can. But I'll do the fighting for them because I don't think they're in a position to fight, given the power difference. We're basically knocking them [men] into shape…They know that we don't tolerate it[here].*

The use of direct confrontation made it clear to male colleagues that discriminatory behaviours would not be accepted by female leaders in the ICT industry, allowing female leaders to stand their ground in difficult work environments and social situations.

Formal organisational processes

Although direct interpersonal approaches were useful, when participants felt that discriminatory behaviour was too serious for them to address individually, they used formal mechanisms such as Human Resources (HR) processes to confront and address the behaviour. For example, Jess explained that she was once spoken negatively about by a male colleague in a meeting where she was not present. This led to her formally raising a complaint through HR. Fortunately, HR handled the situation on her behalf, resulting in a strong relationship with her male colleague:

> *Absolutely talk to HR. There's no way I was going to have that… because it was going to undermine me if I didn't take some action. … [through HR] there were some conversations had and that person came and apologised and asked did they upset me? And I said you absolutely you did. You were out of line. Since then we have a really good relationship. I think you have to call it out. You cannot sit back and let it be railroaded over you.*

Problem solving to challenge gender discrimination

However, more participants used a problem-solving approach to address gendered assumptions and stereotypes. Charli articulated that she chooses to use this approach rather than other methods when calling out negative behaviours or situations because:

> *There is an element of understanding that you have to let some stuff go. You can't fight every fight, so you pick your battles and you find a gentle way of doing it that is more a consultative approach*.

Charli chose which 'battles' she'd address because she did not want to be the 'raving feminist' who called out issues constantly. This links to her fear, based on perceived gender assumptions within the industry, that direct confrontation is perceived to be abnormal behaviour for women. Similarly, when Kate experienced "not having a seat at the table" she used a problem-solving approach to address this at a leadership meeting with her team:

> *My male colleagues all took a really, really long time to talk. Every one of them got to talk to their slides…Not one of them noticed that I hadn't had an opportunity to speak... I was really, really angry. We talked about it at our next leadership meeting. And I was like, "So there's a couple ways we can handle this. I'm going to stop being the admin person..." They were all like ,"Oh my god I'm sorry". I'm like, "Actually I don't want your apology, what I want is your commitment that you won't forget me again".*

A problem-solving or personal approach to challenge gender discrimination, stereotypes and assumptions was often used among participants. However, Sarah reported that this approach was not always successful:

> *I'll try and be courageous and I'll say, "Hey, when you did this it made me feel a little bit s***, so can you think about a different way of perhaps communicating that?" That doesn't always work.*

Although the problem-solving approach was not always successful for Sarah due to the reactions of her colleagues, other participants used it to call out negative behaviours, explaining why the behaviour is not acceptable and develop solutions with male colleagues to solve the behaviour going forward. This enabled participants to set the tone within their workplace of what behaviours they would and would not accept.

In contrast to a problem-solving approach, Rose used a more personal and private approach when addressing discrimination. She made time to talk with her colleague and did not deal with

the behaviours as abruptly. However, the conversation was still direct as she made it clear that she would not accept sexist behaviour:

> *The person that was doing it, he was one of many, but he was the guy I was dealing with. After three weeks in the job, I took him out for a drink. I said, "Look, you can't keep treating me like this. It's not going to work: you won't get the best out of me and you won't get what you need to deliver for your organisation". I said, "Look, you've got to respect women"… He backed down.*

Daisy explained that she uses non-verbal cues such as eye contact to make others aware of their discriminatory behaviour:

> *I try and not to be too confrontational…but if somebody turns around and calls me his wife (in a conference), I go actually I'm dah, dah, dah, and I kind of just give them a bit of a look as if to say really? We're doing this are we? That's all they need and then they realise that they've been a bit of a d*** (laughs).*

Another way of communicating to men that they had behaved or spoken inappropriately, was with the use of humour. Similarly to the use of non-verbal clues, humour allowed participants to confront negative behaviours in a way that was more acceptable to the men. For example, Rose articulated that she used her humour as a defensive mechanism when male engineers asked her to complete tasks based on her gender. She used humour to deflect sexist comments from older colleagues:

> *I think in this environment, it's certainly very male dominated and the older engineers are very, very sexist. They have no intention to be mean or cruel, to put you down, but I would be asked once a week to do some print outs or take some notes and I just don't do it. I go, "Oh my goodness. I can't get that printer to work for me". I laugh it off. I use a little bit of humour.*

Participants also acknowledged that addressing discriminatory behaviours became easier throughout their career as they developed more experience and confidence in managerial and leadership roles. Addressing discrimination also helped participants develop supportive relationships with male colleagues which in turn helped change the culture.

DISCUSSION

Participants spoke about how direct confrontation, calling out, of male colleagues, challenged gendered stereotypes and resulted in improved or changed behaviours. Over time, this could lead to change within their workplace not only for themselves, but perhaps other women also. Participants used different methods to call out gender discriminatory behaviours including direct confrontation, a problem-solving approach, and formally with HR. Participants highlighted that, when male colleagues were confronted by a problem-solving approach or an HR process, it created positive relationships with the participants. This was due to male colleagues not feeling threatened and having a chance to apologise and change their behaviour in comparison to when they are directly challenged. However, the more private approach was not always as successful in changing behaviours, whereas public confrontation usually was.

Gendered institutions can change and the social interactions which support gender inequality can also be undone (Deutsch, 2007; Wright, 2016). Despite the positive shift away from overt discrimination in the IT industry, contributed to by a framework of professionalism through which co-workers see and relate to each other (Zaidman, 2021), participants noted two types of social interactions displayed by male colleagues which continue to construct and maintain gender. The first included men not knowing how to interact with women in their teams; the second is

resistance to females within the industry. Participants experienced behaviours such as men interrupting participants in meetings and arguing with their ideas for the 'sake of it', questioning their skills and capabilities (Kirton & Robertson, 2018), and downplaying women's achievements (Smith, 2013) at various points in their ICT careers. These negative experiences led participants to feel that they needed to continually prove their worth and abilities which is similar to other research on women in male-dominated industries (Cater-Steel & Cater, 2010; Powell et al., 2009; Smith, 2013).

Within this study, participants explicitly used the term 'calling out' when discussing how they challenged gendered social interactions, assumptions and stereotypes. Participants also reinforced that they publicly called out social interactions when they felt their skills and abilities were being undermined. They indicated that directly calling out behaviour allowed them to publicly assert their dominance (Woods & Ruscher, 2021). Asserting dominance is not explicitly discussed in call out culture (Woods & Ruscher, 2021), but when used within an organisational and individual context, it allowed participants to develop an image of not letting other colleagues push them around. The importance of creating this image for participants may be reflective of their constant battle with gendered microaggressions and having to prove their worth within a male-dominated industry (Smith, 2013).

While calling out was viewed by most participants as successful for getting male colleagues to change their behaviour (Woods & Ruscher, 2021); participants reported that direct confrontation was less likely to be well received by male colleagues, because such direct confrontation broke accepted gender norms. Although the women were, essentially, behaving in the way that could be expected of managers in a masculine organisational context, it transgressed the expectations of them as women. To soften or have their 'masculine' calling out actions better received, some women simultaneously adopted more feminine actions, such as inducing humour or self-deprecating actions such as eye-rolling. This is similar to findings from Hirst and Schwabenland (2018), who found that undoing gender was a complex process of both conforming to and challenging gender norms within a context.

In contrast, participants found that calling in, or using a problem-solving approach to discuss negative behaviours, allowed them to explain how they were feeling and address the negative impacts of their colleagues' behaviours (DiAngelo & Sensoy, 2014; Thurber & DiAngelo, 2018). Many of the participants were more likely, and preferred, to use a calling in approach than calling out to address and undo gendered stereotypes, assumptions and behaviours. Participants perceived that 'calling in' through a collaborative approach, and/or humour, allowed colleagues a chance to understand their wrongdoings and work together towards a solution (Woods & Ruscher, 2021), while also preserving colleagues' self-perceptions as 'good' people (Crowley, 2022). They stated that this was the right approach as it helped create and form positive relationships with male colleagues. Although they were challenging the discrimination, it was within the bounds of expected gendered behaviour – women using soft skills to build relationships (Acker, 2012) thus conforming in part to the gendered ideas of respectability (Woods & Ruscher, 2021). Calling in behaviour can also strengthen relationships at work with important outcomes, as Gorman (2015) attests; stronger ties to allies can actively help people progress their careers and persuade others to support their ideas.

Although calling in with a problem-solving approach was widely used by participants, it particularly suited those who believed they could not, or should not, directly call out behaviour. They believed they had to pick their battles, which is reflective of them working in a male-dominated industry and not wanting to be stereotyped as the 'feminist ball breaker' (Grosser & McCarthy, 2019). These participants were aware that by 'calling out' they would then be categorised by gender norms that would further exclude them and confirm male colleagues' perceptions that they were somehow less expert or skilled (Kelly & Donelly, 2019; Kirton & Robinson, 2018). This reflects the ways in which gendered organisational norms in male-dominated industries silence women and perceive their opinions to be a burden or irrelevant (Kirton & Robertson, 2018; McGee, 2018; Nentwich & Kelan, 2014). In addition, the fear women held of being stereotyped reinforces that they internalise the discrimination and do not feel equal

to their male colleagues, leading to vicious cycles of gender discrimination through their fear of taking action. However, the third action women took, formal complaints raised through HR, indicates that although direct confrontation may not work for some women, they still take overt action through invoking formal processes and seeking support of HR.

It is important to note that participants did not mention if other males also called out their colleagues' negative behaviour. Butler (2004) asserts that gender cannot be 'undone' until binaries are questioned, and that this may happen not within organisations, but through social movements. Indeed, it has been noted that men within male-dominated industries need to continuously be allies for women to create change or women will continue to fight an uphill battle (DuBow & Ashcraft, 2016). Although participants did not name the #metoo movement, the change to women directly confronting gender discrimination through 'calling out' is linked to the rise in both 'call out culture' and the #metoo movement.

CONCLUSION AND IMPLICATIONS

This article identified calling out and calling in practices used by female managers to undo gender within the ICT industry. Calling out and calling in behaviours are concepts which are typically not discussed in doing and undoing gender research but are common in social justice advocacy (DiAngelo & Sensoy, 2014; Thurber & DiAngelo, 2018). Participants highlighted that calling out negative behaviour worked to undo gender discrimination within their industry. In our study women also identified that their very presence and questioning of norms within the industry aided in undoing gendered norms such as a highly competitive environment, long workday cultures and ideal male worker norms (Holt et al., 2017; Kenny & Donnelly, 2019; Kirton & Robertson, 2018). These industry norms, alongside gender discrimination, continue to be an issue preventing women entering and succeeding in ICT.

Therefore, there are several areas of import of this research for practice. Firstly, it provides insights into how to change organisational and industry norms around long hours and unfettered 'dedication' from employees. This is important for encouraging different work arrangements, including part-time, 'normal' hours, and therefore creating opportunities for a wider range of employees. Secondly, this study did find that robust, accessible HR policies and processes for addressing harassment and discrimination are important for employees in situations that are beyond those that they or their manager can resolve. Thirdly, it is still important to offer and expect employees and leaders to engage in diversity, equality and inclusion training and education with a focus on reflection and awareness of the complexity of discrimination in organisations. Recognising that senior women have the agency, skill, and experience to address gender discrimination, and including them in the development and implementation of DEI programmes could help create positive change. Additionally, some of this work needs to be centred on creating strong allies who are skilled in calling out or calling in discrimination when they see it, rather than expecting women to hold the responsibility for men's discriminatory behaviours.

Future research could usefully investigate, how men respond to 'calling out' and 'calling in' (Crowley, 2022); and how or if men themselves 'call out' or 'call in' the discriminatory behaviours of their male colleagues. Exploration of how technology could be used to support 'calling out' and 'calling in' behaviour would also be valuable, as technology can be used by organisations and professionals to support and shape insider/outsider dynamics, boundary management, role identity and even the creation of new identities (Goto, 2021).

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