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# ‘Nobody left behind’: barriers to engagement in early years digitally mediated leadership development

Kayla Halls<sup>a</sup>, Mona Sakr <sup>a</sup> and Kerris Cooper<sup>b</sup>

<sup>a</sup>Education, Middlesex University, London, England; <sup>b</sup>Education Policy Institute, London, England

## ABSTRACT

This research pinpoints the barriers UK early years (EY) leaders face in accessing digitally mediated leadership development. Furthermore, we consider initiatives to disrupt digital exclusion and ensure more equitable access to professional learning opportunities. The onset of the COVID-19 pandemic catalysed an upsurge in the use of digitally mediated professional learning in the UK EY sector. While digital mediation has proven useful in delivering EY leadership development programmes, this article considers who has access to these programmes and who is left behind. Through an inductive thematic analysis applied to 24 qualitative case studies with UK EY training providers, underpinned by the multilevel intersectionality model created by Núñez (2014), we consider how digital exclusion operates through socioeconomic status, geography and race within the sector. Based on this, we emphasise the need for the sector to disrupt these inequities by enacting bottom-up and top-down initiatives to foster digital inclusion across EY.

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## Introduction

Strong leadership has the potential to improve process quality and child outcomes in early years (EY) settings (Douglass 2019; Melhuish and Gardiner 2019), making professional learning opportunities for EY leaders essential. Leadership development for EY leaders in England is gaining new traction with the government’s development of the National Professional Qualification in Early Years Leadership (NPQEYL), and the Early Years Experts and Mentors Programme which funnels investment into peer-to-peer leadership development. These large-scale initiatives depend on synchronous and asynchronous digital engagement across cohorts, including through virtual meetings and events, video resources, forums, online quizzes and digital reading materials. Beyond these government-supported initiatives, a plethora of leadership development organisations operating more broadly across the UK EY sector have increased their digital offer through the integration of new platforms and tools. The shift to digitally mediated professional learning (DMPL) has been catalysed by the COVID-19 pandemic, which forced much of the sector to move their professional learning opportunities

**CONTACT** Kayla Halls  [k.halls@mdx.ac.uk](mailto:k.halls@mdx.ac.uk); [kaylahalls55@gmail.com](mailto:kaylahalls55@gmail.com)  Education, Middlesex University, London, England

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online. While this shift has generated excitement across the sector (Halls, Sakr, and Cooper 2022), we must consider the effectiveness of such delivery methods and examine who they work for and who might be left behind as a result of this shift in provision. We undertake this political work of identifying who may be excluded through the current systems in place in an attempt to disrupt the current processes in the EY sector and usher in more inclusive practices.

We map the current landscape of EY leadership development in the UK which heavily depends on digital mediation and consider what we know already about who is excluded from digitally mediated leadership development (DMLD) initiatives. Following a discussion of our research design, which involved case studies from 24 diverse providers of leadership development in the UK, we present findings illuminating the realities of digital exclusion within the sector. We consider the ways in which socioeconomic status, geography and race impact upon the take-up of DMLD. We argue that without concrete measures to address discrepancies in participation and engagement, ongoing inequities in the sector will only be exacerbated through recent DMLD initiatives.

## **Background**

In this section, we first consider the role of DMPL in recent leadership development initiatives as well as the advantages and disadvantages of DMLD. Building on the sector-wide call for ‘nobody left behind’, a sentiment that repeatedly arose through conversations in this research, we question the barriers that prevent engagement with DMLD. We mobilise Núñez’s (2014) multilevel intersectionality model to understand how digital exclusion might function in relation to socioeconomic status, geography and race.

### ***Digitally mediated leadership development in early years***

The onset of the COVID-19 pandemic pushed the bulk of professional learning experiences across all sectors online. This revealed untapped potential for supporting EY professionals and catalysed the workforce’s capacity to engage with DMPL (Anderson 2020; Gomez 2020). For example, recent government initiatives in England such as the NPQEYL and the Early Years Experts and Mentors Programme have harnessed digital mediation for programme delivery to deliver content to EY leaders and support their learning. DMPL encompasses synchronous professional learning sessions such as video calls through platforms like Zoom, as well as asynchronous learning opportunities through virtual learning environments (VLE) such as Moodle. VLEs act as a navigational pathway through readings, videos, assignments and discussion boards where learners can lead their learning in their own time frame.

A recent systematic literature review conducted by Bonetti and Halls (2022) examined a total of 46 articles focused on the intersection of leadership development and DMPL in the EY sector. The review suggests certain advantages to DMLD, such as its potential to decrease the time needed for professional learning. Relatedly, within the busy day-to-day realities of the EY workforce, DMPL is a flexible medium for training. Furthermore, DMLD can improve accessibility by removing the barrier of travel (Maher and Prescott 2017), allowing more participants from a variety of places to engage in professional learning. Following on from this, DMLD forges connections across diverse geographical contexts (Halls, Sakr, and Cooper

2022), connecting EY leaders from different parts of the nation to share good practice and support each other. Finally, DMLD is potentially more cost-effective than in-person learning due to cutting out travel expenses, providing some relief in the face of the sector's burgeoning economic challenges (Halls, Sakr, and Cooper 2022).

When taken together, online leadership development has the capacity to support EY leaders in their daily professional lives, providing easy access to high-quality professional learning that nurtures leadership practices, potentially supporting process quality alongside child outcomes. However, research also highlights distinct disadvantages to DMLD, such as a fear of losing critical dialogues and peer-to-peer connections through the new medium (Halls, Sakr, and Cooper 2022). Significantly, the sector notes barriers that prevent many EY leaders from accessing DMLD. These barriers build on the history of exclusion from professional learning that resonates through the sector.

Prior to the pandemic, EY managers specifically noted that professional learning opportunities were unaffordable, effectively shutting out EY professionals from developing their practice (Education and Training Foundation 2018; PACEY 2018). Managers also noted that a lack of opportunities in their locality constrained access to professional learning (PACEY 2018). Furthermore, research shows that rural areas specifically do not have as many in-person opportunities for professional learning due to distance (Maher and Prescott 2017). These data indicate that many leaders, pre-pandemic, were left behind in accessing quality professional learning due to money and location, thereby impacting negatively on process quality and child outcomes (Ceeda 2019; Education and Training Foundation 2018; PACEY 2018).

As the sector shifts into DMLD as the primary delivery mode for leadership development, these persistent pre-pandemic barriers have begun to manifest in different ways. The emerging challenge of digital exclusion is exacerbating ongoing issues linked to financial resources and geographical location while also raising newer ones, to be detailed in the following section. During our interviews, this led to the sector calling for 'nobody left behind'. We characterise this call as a bottom-up sentiment where EY sector bodies noted the importance of combatting inequitable access to DMLD opportunities in the sector. Therefore, the sector must consider the barriers to engagement by questioning who has access to digitally mediated learning opportunities and how this can be extended.

### ***Understanding exclusion from DMLD through multilevel intersectionality***

Digital exclusion is defined as the factors which prevent a section of the population from engaging with the internet and other technologies (Bunyan and Collins 2013; Philip et al. 2017). Núñez's (2014) multilevel intersectionality model aids us in understanding the factors that contribute to digital exclusion with DMLD in the EY sector.

This model was originally developed to get to grips with how intersecting power systems influence educational equity through the example of Latin identities and college access. However, Núñez (2014, 90) described this example as a 'departure point', indicating that this model could be used in other contexts to understand how social identities alongside other factors influence educational experiences. We aim to apply Núñez's model to the issue of digital exclusion with DMLD in the EY sector by mobilising the micro-, meso- and macro-levels of influence. Micro-levels of influence encompass social

categories, or the ways in which people are sorted and placed, such as socioeconomic status, geographic location and race; meso-level influences encompass social relationships, practices and processes such as positions at work, educational systems or the practice of digital exclusion; and macro-level influences consider historicity in the sense of politics, social movements and classification embedded within specific times and places (Nicholson and Maniates 2016; Núñez 2014). While intersections occur within each level (such as between socioeconomic status and race), this article primarily considers the intersections that occur *between* levels. Within digital exclusion in the EY sector, it is crucial to consider how social categories such as socioeconomic status connect to an EY leader's work and the constraints of digital exclusion in the mesosystem. This, when embedded in macro-level influences, such as new government programmes or a contentious history of diversity and inclusion in the education system, illuminates a complex issue. In other words, a leader is not just a leader- a leader is a dynamic human being with intersecting identity factors embedded in a web of influences that 'afford and constrain' (Nicholson and Maniates 2016, 66) their access to leadership development opportunities.

There is concern that the meso-level issue of digital exclusion exacerbates social divisions that already exist along the lines of socioeconomic status, geography and race (Philip et al. 2017). This is because many social categories correlate with digital exclusion, such as income. Previously, nurseries noted the issue of affordability in accessing professional learning; now, while DMLD has supported affordability in some respects (Halls, Sakr, and Cooper 2022), the barrier of money still persists through the social category of socioeconomic status, located in the microsystem, with Perez-Escolar and Canet (2022) noting that low-income individuals are more likely to be digitally excluded. Within the Social Mobility Commission's (2020) review of the stability of the EY workforce, a case study showed that nursery managers make between £11 and £12 an hour, or £24,000 annually before tax. While this can fluctuate based on region and setting type, this falls well below the current national median for disposable household income at approximately £31,400 a year (Office of National Statistics 2022). This vividly illustrates the notoriously low salaries that ring the sector, rendering leaders prone to relative low-income status and, by extension, putting them at risk for digital exclusion.

When considering the social category of geography, DMLD has the potential to bridge the rural gap described in the previous section (Maher and Prescott 2017). However, inadequate infrastructure in rural areas creates a barrier to digital inclusion, preventing a unified societal shift to online leadership development (Freeman, Park, and Middleton 2020; Perez-Escolar and Canet 2022; Philip et al. 2017). It is less profitable for commercial broadband and internet providers to increase infrastructure in rural areas (Freeman, Park, and Middleton 2020; Gerli and Whalley 2021), posing an issue at the macro-level of Núñez's model; therefore, rural areas tend to either have slow and unreliable internet, expensive and limited service or no internet at all (Freeman, Park, and Middleton 2020), preventing residents from participating in DMLD programmes that can support their professional lives (located in the mesosystem). Furthermore, existing softwares such as Windows operating systems, Zoom or cloud connectivity can take exponentially longer to load and connect, leaving professionals lagging behind or completely in the dark. Macro-level initiatives to address the issues such as the UK's Westminster Government's Broadband Delivery programme or Connecting Cumbria often focus on those who

already have broadband, meaning that fast areas get faster and rural areas remain poorly connected or entirely disconnected (Gerli and Whalley 2021; Philip et al. 2017).

Within the social category of race, EY leaders face a long-standing history of discrimination in the education system. Macro-level systemic forces sustain barriers that prevent racial minorities from advancing into EY leadership roles located in the mesosystem. This includes a lack of support for career progression alongside a lack of leadership development that acknowledges and responds to the experiences of racially minoritised professionals (Johnson, Campbell-Stephens, and Jacobson 2013). Pinto (2022) begins to explore the intersection of race and EY leadership progression through a study which demonstrates a stark drop off in ethnic diversity from teaching to middle management to leadership roles; however, few comprehensive studies are available to provide the complete picture of how and why this is occurring in the EY sector. The lack of racially minoritised leaders in the sector is nestled within the issue of access to DMLD. When considering digital exclusion at large, factors of digital exclusion such as socioeconomic status often reflect social inequalities characterised by race (Moran and Bui 2019), revealing an intersection at the microlevel of Núñez's model. For example, ethnic minorities are susceptible to digital exclusion (Perez-Escolar and Canet 2022); however, this could be because ethnic minorities are also prone to low-income status (UK government 2022). When both issues are compounded, racially minoritised EY leaders face serious barriers to access DMLD.

This research engages with these issues at the micro-, meso- and macro-levels of the multilevel intersectionality model to unearth how power structures and social categories contribute to the issue of digital exclusion in DMLD for EY leaders. By bringing the problem to light, revealing the structure of the systems at work, we can disrupt the process in place to ensure nobody is left behind.

## Our research

As part of a larger funded study on the potentials of DMPL to advance leadership development across the UK EY sector, we developed case studies focused on 24 training providers that offer leadership development opportunities for EY educators in all four nations of the UK. Organisations involved varied from large charitable bodies working across the UK to represent the EY sector, to small private companies providing leadership development in particular regions, locally, nationally or globally. We conducted this research in the pragmatist tradition which is specifically designed to enable those working 'on the ground' to collaboratively problem-solve in response to sector challenges (Kaushik and Walsh 2019; King 2022).

In building each of our case studies, we drew on a range of methods and sources including:

- Interviews with relevant representatives from the training provider. Across our 24 case studies, we conducted 27 one-to-one interviews and 3 focus groups.
- Interviews with participants who had completed a leadership development programme with the training provider. We gathered data from a total of 16 participant interviews, which related to 8 of the 24 training providers.

- Surveys with participants who had completed a leadership development programme with the training provider. We gathered data from a total of eight completed surveys, which related to a further 4 of the 24 training providers, meaning that across interviews and surveys, we were able to draw directly on participant perspectives for 12 of the training providers.
- Documentation relating to the leadership development offer. This could include internal evaluation materials that the training provider was willing to share and discuss with us, as well as programme overviews and training materials. A total of 18 training providers shared such materials with us.
- Relating to one case study, we participated in a relevant session of leadership development training online in order to understand more about how the offer worked in practice and what was involved from the participant's perspective.

To understand the barriers EY leaders face in accessing DMPL, we primarily drew on the interviews because the issue of digital exclusion became most prevalent in this data source. We held the semi-structured interviews with training providers and participants online through Zoom and Microsoft Teams. While digital data collection allowed us to easily connect with programme providers from all four nations, we acknowledge the possibility that we curbed voices from rural areas due to poor internet connectivity, a facet of digital exclusion explored in the article. We also acknowledge the disproportionate number of voices racialised as White in the data, reflecting the sector-wide problem of digital exclusion and underrepresentation in leadership due to race which will also be explored in the article. The interviews lasted between 30 min and an hour with each interview averaging around 40 min in length. The questions we used to prompt thinking centred around experiences of attending and facilitating DMLD, the joys and challenges of DMLD and visions for how digital mediation can be used for leadership development in the future. We professionally transcribed the interviews for analysis.

Prior to data collection, we obtained institutional ethical approval. Given the nature of the data, we decided the best approach to anonymity was to anonymise mention of providers and participants in this report through pseudonyms and brief organisation descriptors. Using pseudonyms and descriptors, we hope that readers focus more on the findings and less on what was said by whom. Through our pragmatist positioning in which we aim to collaboratively problem-solve with those working in the field in response to sector challenges, it was essential that the sector felt that this research would benefit everyone, across all four nations, working at all levels and in all parts of a fragmented sector. This includes the relatively small maintained segment and the more extensive though often marginalized segment of private voluntary and independent initiatives (PVIs). Inclusivity has fed into our approaches to data collection, analysis and dissemination. It is not a coincidence that in this, our first article stemming from the research, we have chosen to focus on the issues that prevent sector-wide engagement in DMLD. We aim to shine a light on the barriers that might prevent us from moving forward together as a sector so these can be challenged and overcome.

The research team analysed participants' and providers' interviews using inductive thematic analysis (Braun and Clarke 2019, 2020). This is an iterative process through which keywords and key phrases are used to build up a set of codes, which can then be grouped into themes and sub-themes. We implemented inductive thematic analysis

to elucidate the experiences of those ‘on the ground’ from the perspective of both providers and participants. We enacted a robust, systematic and transparent procedure where two members of the research team met regularly to discuss emergent codes, sub-themes and themes. We then presented our emergent analysis to the project advisory group whose dialogues influenced the analysis and final themes pinpointed in this report. Finally, we further analysed these themes through Núñez’s, 2014 multi-level intersectional model to identify the numerous factors that contribute to digital exclusion. We chose to engage with the themes of socioeconomic status and geographical location in this article based on their repetition across participants. However, the discussion of race in relation to exclusion from DMLD was something of an anomaly in our dataset. Only one participant, the CEO of an anti-racist training provider, discussed the role of race in digital exclusion despite its significance in the literature (Perez-Escolar and Canet 2022). We focus on race as one of our themes despite the relative silence surrounding it on the basis that this silence is a fundamental part of the problem when considering digital exclusion in DMLD.

## Findings

In this section, we explore the following themes that arose through the analysis process: digital exclusion through socioeconomic status; digital exclusion through geography; and digital exclusion through race.

### *Digital exclusion through socioeconomic status*

The micro-level social category of low-income socioeconomic status within individuals and settings can act as a constraint for accessing DMLD. Throughout the interviews, participants expressed concern regarding the ‘price of entry’ to DMLD: internet access or mobile data, hardware (such as a computer, headphones and webcam) and software (such as a Zoom subscription or Microsoft Office Suite).

Assuming that everybody has an internet connection, assuming that everybody has access to technology: that’s not the case. It can be quite exclusionary in that sense. We have to think about accessibility, about who’s got access to money, internet connection, technology. These things, they cost. (Natasha, Private EY Training Company in England)

I think in infrastructure there would be barriers, if you A) didn’t have the internet connection and B) didn’t have the right device. (Carol, Nursery, Research Base, and Training Provider in England)

While most individuals have access to a mobile phone, this does not create an optimal platform for professional learning experiences, especially when most programmes are designed for computer access.

There’re barriers around people’s personal hardware devices. There are some people who have to run everything from their phone and although pretty much everything is optimized for mobile devices now it still is not ideal to do programmes through a phone. Some people, particularly those who are lower income, don’t have a laptop at home. I found some practitioners say, ‘I’m really struggling to use our phone’. So again, that is another barrier in



lower income industries, which, unfortunately is EY. Shouldn't be, but it is. (Jennifer, Independent School and Nursery Group in England)

These expenses can cause serious strain for low-income individuals and settings, especially within the macro-level issue of inflation, low EY sector pay and the cost-of-living crisis in the UK.

Through this lens, individual EY leaders may not afford these upfront costs, shutting them out from DMLD, an opportunity located in the mesosystem; this aligns with the issue of low-income individuals being vulnerable to digital exclusion (Perez-Escolar and Canet 2022). Furthermore, at the setting level, EY leaders working in disadvantaged areas with restrictive budgets may be least able to engage with DMLD; this reflects previous affordability challenges in accessing professional learning (PACEY 2018), creating a paradox where the settings most in need of in-depth professional learning are least able to access it. Providers are aware of this dilemma, noting how lack of equipment poses a serious barrier.

We do have this problem of digital discrimination or digital disadvantage, potentially, where people don't have the equipment necessary to engage in all the learning opportunities that are available digitally. We have to be conscious of that. (Colleen, Regulatory Body in Scotland)

These comments illustrate how low-income socioeconomic status can prevent EY leaders from accessing DMLD. When considered within Núñez's model, this social category in the microsystem has a direct correlation to an EY leaders job role in the mesosystem, constraining or affording their access to professional learning opportunities. This is situated within the wider issue of inflation and the cost-of-living crisis which exacerbates the strain that comes from being in a low socioeconomic bracket; furthermore, this reflects the ongoing struggle of money in access to professional learning pre-pandemic (Ceeda 2019). When EY leaders are shut out from these opportunities due to finances, their professional growth can be effectively stunted due to the prevention of creating networks with other leaders, engaging in reflective practise taught by DMLD, and accessing opportunities that could support their career and nursery. These issues, which are a continuation of the previous issue of exclusion from professional learning due to affordability (Education and Training Foundation 2018; PACEY 2018), are also reflected in the following sections.

### ***Digital exclusion through geography***

The micro-level social category of geography also impacts EY leaders' access to DMLD. Despite the potential for DMLD to connect EY leaders across different areas, creating new spaces for practice sharing, for those who have access to hardware and software, internet access can pose an insurmountable barrier to digital inclusion (Freeman, Park, and Middleton 2020).

Some EY settings are run from village halls, community centres, those sorts of places. They didn't have internet access, or they were hotspotting off of other devices which wasn't ideal and didn't give them the best connection. (Carol, Nursery, Research Base, and Training Provider in England)

There are some issues- that some settings don't have access to the internet in their settings because they're in a rural location. (Anna, Education Charity in Wales)

While quality internet access is not strictly drawn on geographic lines, infrastructure in rural areas lags behind their urban counterparts.

We've lived in Wales now for eight years and when we first moved here, we were the only house on the road with Wi-Fi. I grew up in a city, so it was just very different. Now it's rolling out more but it's really hard to get a good signal in some places. When we go out and see learners who need to have internet access, it is very, very patchy. You find that you have to move around different parts of their property to try and get that signal. That's not conducive to good learning. (Elena, Organisation for Out of School Childcare Clubs in Wales)

It's only within the last two months that we have been able to access a new Internet connection through fibres. I'm not the only person in Northern Ireland, but a lot of our settings are quite rural ... I still have people who are clearly on a mobile phone who can't really use all of the interactivity. (Ella, Large Training Provider and Advocacy Body in Northern Ireland)

This forms a macro-level challenge for EY leaders. Because internet providers stand to make less profit by investing in rural areas, there tends to be slow and limited internet access or none at all (Freeman, Park, and Middleton 2020; Gerli and Whalley 2021). This creates a phenomenon where 'those who stand to benefit the most from advanced broadband are the least likely to be able to access quality connection methods' (Salemink et al., 2017 cited in Freeman, Park, and Middleton 2020).

Without stable, quality internet service, EY leaders contend with fragmented access to learning, placing them at an acute disadvantage when accessing and navigating DMLD, situated in the mesosystem. When EY leaders are contending with the mode of delivery, they cannot focus on the content, inhibiting access to the same quality of training their urban counterparts receive. Moreover, the few EY leaders without any internet are shut out from these opportunities altogether.

The issue of excluding EY leaders due to rurality has clearly persisted despite the advancements made in DMLD due to fragmented internet access. Therefore, the location of a leader, a social category located in the microsystem, continues to constrain their ability to access professional learning to support their job role, located in the mesosystem. While this issue does not affect all EY leaders, the sector is adamant that no one is left behind as we harness the power of DMLD, making it crucial that this issue of digital exclusion is addressed accordingly (Halls, Sakr, and Cooper 2022).

### ***Digital exclusion through race***

As noted by Moran and Bui (2019) and Perez-Escolar and Canet (2022), factors that contribute to digital exclusion often reflect social inequalities drawn along the line of race. Natasha, the CEO of a private anti-racist EY training company in England, was a key informant when considering racism and anti-racism in relation to DMLD in EY. Her expertise was essential in connecting the literature to the current realities of the sector. To understand the issue of race in digital exclusion, she first urged us to consider the issue of race in EY as a whole.

We're thinking about our social identity, we're thinking about our personal identity. Because, ultimately, we cannot remove the person from the professional. We are a person, we are people, we are human and I really try to delve into that human element when we're looking at leadership and we're looking at how we think about change. (Natasha, Private EY Training Company in England with a focus on anti-racism in EY)

In this quote, Natasha clearly illustrates how the micro-level social category of race influences the professional happenings of EY leaders that occur in the meso-level of Núñez's model. She goes on to describe macro-level issues of race within the EY sector.

For a long time, what may have been seen and perceived as leadership has been done through a lens of whiteness. (Natasha, Private EY Training Company in England)

The inability to relinquish power [is a barrier to advancing DMLD]. The barrier of this is understanding and not understanding how whiteness operates. Being able to understand how racism operates and understanding about the power dynamic in racism and understanding that the relinquishing of power for anybody is hard ... It's quite a difficult thing. It requires you to do a lot of deep reflection about why you've come to where you've come to or how you've achieved what you've achieved ... Thinking about leadership, we're thinking about who is at the top, who's governing what. We have to think about the barrier being the inability to relinquish power and the inability to listen to voices that are marginalised. (Natasha, Private EY Training Company in England)

The issue of digital exclusion through racially and ethnically minoritised identity status is a small part of a wider problem in EY concerning race in the workforce. The few quantitative studies focused on the EY workforce reveal a concerning lack of ethnic and racial diversity in leadership positions (Pinto 2022); furthermore, the studies available are not comprehensive, proving a lack of evidence around this topic in the UK and on a global scale (Gide et al. 2022; Qi and Campbell 2022). Despite this, the available qualitative research suggests there may be systemic barriers preventing career progression for racially minoritised educators (Campbell-Stephens 2021; Johnson, Campbell-Stephens, and Jacobson 2013; Tembo 2021a).

If racially and ethnically minoritised leaders are lacking within the EY workforce as a whole, it is given that their voices will also be lacking in the niche of DMLD programmes. Relatedly, ethnic minorities are amongst groups identified as vulnerable to digital exclusion (Perez-Escobar and Canet 2022). This could be attributed to minority ethnic groups being more likely to be classed as low income (UK government 2022), which is a factor of digital exclusion, intersecting with the social category of socio-economic status discussed above. With the upsurge of DMLD in EY, this suggests minoritised voices are repeatedly left out of conversations that are advancing the sector's leadership practices, passively cementing leadership practices rooted in whiteness. This perpetuates a cycle where minoritised leaders are continually kept out of leadership roles which, as noted by Natasha, are spaces of power. This ingrains the social inequities (such as low-income status, which would be attributed to lack of job progression) that factor into digital exclusion. However, it is possible to disrupt this cycle:

I want us to think about the minoritized voices who have never been amplified. If we're going to impact leaders, we have to understand that the nuance of our experience has to be given space and value. We can only do that if we truly understand what it means to have different voices. (Natasha, Private EY Training Company in England)

When taken within the multilevel intersectionality model, the social category of race, tied to the long-standing and ongoing cycle of racism and discrimination in the education sector, constrains EY leaders' access to DMLD opportunities. While the discussion hones in on what this means for digital exclusion, this is a small part of a larger problem that needs more research.

## Discussion

Across the findings, the multilevel intersectionality model unearthed how micro-, meso- and macro-level influences play into the issue of digital exclusion. Social categories such as socioeconomic status, geographic location and race evidently constrain EY leaders' access to DMLD opportunities via digital exclusion. We also scrutinised macro-level, long-standing societal issues that impact upon digital exclusion such as the ongoing constraint of money in accessing professional learning, the history of rurality acting as a barrier to access and the cycle of discrimination due to race. Through this lens, we illuminated the complex problem of digital exclusion. In the discussion, we shift our focus to how we can disrupt the issues and systems outlined above, fostering digital inclusion within the sector to ensure nobody is left behind.

The call for 'nobody left behind' arose during our interviews, a sentiment through which sector bodies expressed the importance of combatting inequitable access to DMLD opportunities in the EY sector. Therefore, across the findings, there are several actions training providers can take to foster digital inclusion. First, programme providers must think through issues of access in the creation and delivery of DMLD programmes. When considering how to alleviate the 'price of entry', programmes should ask if leaders have the necessary technology to participate, and if not, provide the option of loaning laptops and temporary subscriptions to software. This opens up access to leaders who may not have otherwise been able to participate. When considering the issue of race in digital exclusion, providers can ensure their programmes have inclusive practices. Examples of this include ensuring programme content draws on leadership theories developed by racial and ethnic minorities, celebrating different perspectives; recruiting programme facilitators from different racial and ethnic backgrounds to incorporate a variety of voices into sessions; and examining recruitment practices to ensure programmes are reaching a wide demographic of participants and providing professional learning that is responsive to their experiences. It is the responsibility of *all* organisations to elevate the voices of racial minorities within DMLD, creating inclusive practices that support minorities and disrupt long-standing cycles of discrimination.

While these initiatives have the potential to be impactful, the EY sector is restricted by segmented marketisation (Bonetti 2020; Early Years Alliance 2020), meaning that this bottom-up push is struggling to gain traction. This necessitates a top-down push of government initiatives to create sustainable and wide-reaching progress for combatting digital exclusion. First and foremost, to alleviate the 'price of entry', governing bodies

must lead a sector-wide push to raise the value of EY in professional spheres and increase salaries to move EY professionals out of the relative low-income bracket, addressing the root cause of the accessibility issue. This campaign may take time, so in the interim, governments can enact initiatives that ensure equitable access to internet, hardware and software through grants for programme providers. These grants would enable programmes to loan hardware and give software access to programme participants. Furthermore, the creation of technology hubs may be an option, providing locations where EY leaders partake in DMLD. This could be as simple as ensuring local libraries or community centres have up-to-date technology for EY leaders.

Creating technology hubs could prove challenging within rural contexts as the feasibility of this fully relies on the presence of internet fibres. Looking at the variety of initiatives that have been previously explored in the UK, community led, volunteer initiatives to install internet fibres helped the design and rollout of networks, making it more effective than a top-down approach where the commercial company continued to value return on investment via densely populated areas (Gerli and Whalley 2021). However, this may not be sustainable due to volunteer burnout and limited funding. While investment is needed no matter the route taken, the exact path may depend on the wishes of each rural community, ensuring that the project matches their needs.

When taking a wider view of the systemic exclusion of racially minoritised individuals, we believe more work must be done. As minoritised identity status in the EY workforce is under researched (Tembo 2021b) (and even more so within the topic of digital exclusion), the first step is swiftly enacting rigorous qualitative and quantitative research that reveals the roots of these issues so we may fully understand how to address them.

We acknowledge that both the bottom-up and top-down sides of these proposed initiatives require intentional thought, collaborative action and economic investment from the EY sector and government. However, without investing in these initiatives, inequities in the sector will only be exacerbated through recent leadership development advancements, failing to support portions of EY leaders and professionals.

## Conclusion

The UK EY sector must work together to ensure nobody is left behind to support the careers of all EY leaders, advancing progress within quality leadership across the sector and, by extension, supporting settings and the children within them. In this article, we mobilised Núñez's model to explore the complex problem of digital exclusion that arose from the sector-wide pivot to DMPL. Our analysis of 24 qualitative case studies revealed that the social categories of some EY leaders are constraining their ability to access DMLD that can support their job roles in the mesosystem. This is embedded in the ongoing macro-level challenges of limited financial resources with which to access professional learning, the history of rurality acting as a barrier to access professional learning and the persistent cycle of racial discrimination. The main limitation of this research is the limited data on digital exclusion for the EY sector and on EY leadership among minoritised communities. Therefore, for the proposed initiatives to be implemented, more research must be conducted, allowing for the further planning needed for the initiatives to be

effective. Furthermore, while this paper focused on digital exclusion through factors which prevent individuals from engaging with technology, digital exclusion can also occur due to a lack of skills or confidence with technology, creating a barrier to engagement (Fernández-Batanero et al. 2022). Limited digital literacy in a professional context can prevent the EY workforce from completing DMPL (Helenius et al. 2017; Stone-MacDonald and Douglass 2015), making this topic particularly pertinent for future research.

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## ORCID

Mona Sakr  <http://orcid.org/0000-0003-3057-2758>

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