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Recommended Citation

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Under the Neurodivergent Umbrella - A Qualitative Exploration of Neurodivergence and Remote Work

Research Paper

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Abstract. It is estimated that one-fifth of the global population is neurodivergent. As remote work becomes more prevalent, there is a lack of knowledge about how neurodivergent individuals are affected by it. This paper explores how masking, a prevalent coping strategy affected by neuroableism, can be reduced through remote work. Masking is related to severe health consequences, even linked to suicide. We use a qualitative research approach and regular engagement with interviewees to deliver insights into neuromixed communication and collaboration. We show how *chronic technocomfort* and *episodic technorelief* reduce the need for masking. Emphasizing individual acknowledgment over diagnoses, this paper underscores the importance of alleviating workplace stressors induced by ableism. This paper contributes to the IS research stream of remote work by focusing on neurodivergent work experiences and interactions with video conferencing tools, employing collaboration and an intersectional perspective.

Keywords: neuromixed collaboration, participatory research, remote work, technostress, technorelief.

1 Introduction

It is not raining jobs when you're standing under the neurodivergent umbrella. Despite holding college degrees, a staggering 85% of autistic individuals in the US are unemployed (MyDisabilityJob 2024b). Similarly, ADHD:ers (Bertilsdotter Rosqvist et al. 2023) face a disproportionately high unemployment rate of around 8%, far exceeding the national average (MyDisabilityJob 2024a). Further, ableist stereotypes contribute to a reduced *ability* to submerge in neuroconventional relational contexts (Thomas 2004, Bertilsdotter Rosqvist et al. 2023). As such, ADHD:ers are subject to discrimination in employment, with cross-neurotype remote work being no exception. In general, cross-neurotype communication leads to the "Double Empathy Problem" (Milton 2012), encompassing difficulties in reciprocal understanding between individuals with different cognitive clusters or dispositions. Particularly, the problem arises from differing perceptions of *the social world*, for instance between autistic and non-autistic spectrum individuals, leading to a breach in what is considered "social reality" for non-autistic spectrum individuals but is an everyday and often traumatic experience for autistic individuals (Milton 2012, Bertilsdotter Rosqvist et al. 2023). Bertilsdotter Rosqvist et al.

(2023) have introduced the term neuromixed conversations to relate to cross-neurotype communication. In neuromixed conversations, neurodivergent individuals might resort to masking, also referred to as camouflaging, as a coping strategy (Attwood 2006, Gould & Ashton-Smith 2011, Kopp & Gillberg 2011, Lai et al. 2011, Wing 1981), to conceal one's true self (Hull et al. 2017) and to conform with neuroconventional norms (McDermott 2021). Motivations for masking include concerns for safety and well-being due to the potential risks of verbal, emotional, and even physical assaults when not camouflaging (Hull et al. 2017). Ableism forces affected persons to hide in plain sight. Masking drains mental health and is associated with threats to self-image and suicidality, as it brings about rejecting one's true self, inducing elevated levels of psychological stress (Hull et al. 2017, Saigot 2024, Pearson & Rose 2021).

Remote work, where individuals use information and communication technologies (ICTs) for virtual communication and collaboration (Waizenegger et al. 2020), is prevalent among so-called knowledge workers and has become integral to everyday life (Mueller et al. 2023). With approximately one-fifth of the global population being neurodivergent (Doyle 2020), and masking – with its serious health implications – being a prevalent coping mechanism impacted by neuroableism, it becomes imperative to delve into neurodivergent experiences within the neuronormative remote workplace. Understanding the intricate relationship between ICT-induced aspects of remote work environments and neuromixed conversations is vital for unraveling how these factors contribute to masking.

This contribution explores perspectives and experiences pertaining to ICTs, including video conferencing (VC) tools, which often serve as sources of *technostress* in remote work settings (Waizenegger et al. 2020, Ragu-Nathan et al. 2008) and their connection to masking behaviors. *Technostress*, hereby, refers generally to adverse reactions individuals experience when interacting with information and communication technologies (ICTs) (Ragu-Nathan et al. 2008), which is linked to an overall decrease in well-being and performance (Maier et al. 2019, Tarafdar et al. 2015, Srivastava et al. 2015, Maier et al. 2015). While this accounts for a broad spectrum of individuals, the concept of *technostress* may specifically affect cross-neurotype communication (Saigot 2024).

Instead of being named from external perspectives, participants are named by “someone who moves like [us]” (Mullis 2019, p. 147), aiming to contribute to a reframing of neuromixed communication within the critical discourse of neurodivergence (McDermott 2021, Bertilsdotter Rosqvist et al. 2023). In feminist tradition of *joint action* (Francis & Hey 2009), with a “collective I”, stressing “neurodivergent togetherness” (Bertilsdotter Rosqvist et al. 2023, p. 5), neurodivergent individuals will be referred to as *one of us*. The research question collectively explored in the following is: How do neurodivergent individuals experience the remote workplace, and what factors contribute to un/masking behavior?

To answer the proposed research question, a qualitative approach was chosen. We conducted nine interviews with neurodivergent participants to highlight aspects of remote work adding to *technostress*, *technorelief*, and introducing *technocomfort* according to neurodivergent experiences. The findings of this paper contribute to the IS remote work research stream (e.g. (Mueller et al. 2023)), emphasizing organizations' responsibility to acknowledge individuals rather than diagnoses. The neurodivergent gaze within the

IS research stream on remote work, akin to other underrepresented groups, is notably underrepresented (Marabelli et al. 2023), signaling a substantial gap in the literature that warrants attention.

2 Background

2.1 Neurodivergence & Intersectionality

A recent study found evidence that approximately 10% of individuals who died by suicide in the UK were likely autistic but undiagnosed (Cassidy et al. 2022). In general, autistic individuals are significantly more susceptible to experiencing suicidal thoughts and behaviors than non-autism spectrum people (Cassidy 2020, Griffiths et al. 2019, Cassidy et al. 2022, 2014, Pelton et al. 2020). These prevalence rates are highest among adults who receive a diagnosis *later in life* (Cassidy et al. 2014). In the context of ADHD, for instance, women or individuals assigned female at birth (AFAB) are more likely to be diagnosed *later in life* (da Silva et al. 2020, Hinshaw et al. 2022, Morgan 2023). Both internalizing behaviors (Klefsjö et al. 2021, Young et al. 2020, Quinn & Madhoo 2014) and internalized ableism (Morgan 2023) as well as being socialized into normative gender roles with an emphasis on pleasing others (Mowlem et al. 2019, Waite 2010), *girls* are more likely to be misdiagnosed due to gender bias in ADHD assessments (Morgan 2023, Bruchmüller et al. 2012, Nussbaum 2012). Not only gender but also racialized stereotypes lead to ADHD misdiagnoses (Morgan 2023). This is *likely* due to biases from professionals, structural racism, imbalanced resources, stigma, and policies influencing service seeking in communities (Zhao et al. 2023). Neurodivergence, comprising about one-fifth of the global population, is prevalent, making up a significant part of the remote workforce. The next section explores emotional experiences in remote work, especially from a neurodivergent standpoint.

2.2 Technostress, Technorelief – But Make it Techno

When masking, neurodivergent people experience profound dissonance between their core identity and the ideal identity they feel pressured to pursue (Saigot 2024, Hull et al. 2017, McDermott 2021). Despite recognizing masking as unhealthy, *one of us* might feel unsafe unmasking. According to a qualitative study by Saigot with autistic people, ICTs seems to simulate a “digital stage” filtering out “aspects of ambiguity”, which supposedly reduces the strain of masking (Saigot 2024, p. 6925). While ICTs cannot tackle the core problem of ableism, they nonetheless provide some relief in that moment and a digital space. One property of ICTs in that context is an input filter, which Saigot refers to as *technorelief*, and which is further described as facilitating “time outs” for autistic employees in which one can “tune into their perceptions and regain control of their collaborative experiences” (Saigot 2024, p. 6921). Also, being able to use symbols such as emojis, allows for an outwardly display of emotions (Saigot 2024). These findings are in line with other research indicating that ICTs are a preferred means for social connection in autistic people (Saigot 2024, Hassrick et al. 2021). However, where there is *technorelief*, there is *technostress*. Framed as the anti-pattern

to *technorelief*, *technostress* can be defined as the adverse reaction to interacting with ICTs (Ragu-Nathan et al. 2008). *Technostress* is associated with a decrease in well-being and a decline in so-called “user performance” (Maier et al. 2019, Tarafdar et al. 2015, Srivastava et al. 2015, Maier et al. 2015). Evidence suggests that the level of perceived *technostress* is influenced by individual responses to ICT stimuli, this spectrum of perception is argued to be linked to personality traits (Maier et al. 2019, Ayyagari et al. 2011). Research with individuals on the autism spectrum suggests that while ICTs present various advantages, they also entail significant drawbacks. For instance, social media’s unpredictable interruptions can disrupt individual’s workflow and potentially trigger emotional distress (Saigot 2024, Ayyagari et al. 2011). The following section 2.3 provides a more detailed overview of prior research on human interaction with VC tools.

2.3 Zoomed Out: Fatigue and Video Conferencing

Masking frequently involves concealing stimming behaviors, which serve as essential self-soothing mechanisms for navigating overstimulation (Hull et al. 2017, Saigot 2024). Suppression stimming behaviors can lead to significant distress, although individuals may feel safer hiding them, as mentioned earlier (Saigot 2024). Videoconferencing fatigue, commonly known as “Zoom Fatigue” (ZF), refers to cognitive and emotional exhaustion resulting from the use of video conferencing (VC) tools, irrespective of the specific type of VC tool being utilized (Fauville et al. 2021). Bailenson (2021) proposes four psychological causal mechanisms for Zoom Fatigue (ZF): visual distress, increased cognitive effort, mirror anxiety, and physical constraint. Visual distress arises from prolonged close-up eye gaze in virtual interactions, while increased cognitive effort is needed to interpret flattened visual impressions in virtual environments (Nadler 2020, Bailenson 2021, Fauville et al. 2021). Mirror anxiety stems from constant self-evaluation prompted by seeing one’s mirror image (Fauville et al. 2021), and physical constraint arises from limited camera frames restricting mobility (Bailenson 2021, Fauville et al. 2021). According to Bailenson (2021), these factors collectively contribute to the unique challenges of virtual communication, leading to fatigue not typically encountered in face-to-face interactions in non-neurodivergent people. There is some evidence that suggests that neurodivergent people navigate several stressors when interacting with VC tools, aggravated by a lack of technological accessibility and inadequate home environments (Das et al. 2021, Tomczak et al. 2022, Zolyomi et al. 2019). These studies imply that VC environments are associated with higher levels of stress in people on the autism spectrum than in non-autism spectrum groups. For example, some studies imply that autistic people prefer looking at facial regions instead of looking for eye-contact (Robertson & Baron-Cohen 2017). As a result, staring eye-to-eye, close-up, into a VC tool, sometimes even at a “gallery” of faces is considered highly stressful (Parmar et al. 2021). By contrast, Saigot’s findings highlight how the laptop’s camera can act as an anchor point or proxy for eye-contact. Therefore, remote meetings are purportedly considered less stressful when it comes to eye-contact, than in-person meetings by autistic people (Saigot 2024). Regardless, it is recommended that organizations take responsibility for mitigating stressors associated with VC tool interactions by optimizing the duration, frequency, and timing of VC meetings (Tomczak et al. 2022). While some

studies suggest that ICTs can alleviate barriers and enhance well-being for neurodivergent individuals in remote work settings (Saigot 2024), technostress may persist. The example of VC meetings with cameras on inducing Zoom Fatigue and potentially leading to masking behaviors contrasts with Saigot's (2023) findings where participants viewed the camera as a convenient proxy for eye-contact, presenting conflicting perspectives. These discrepancies, especially regarding masking behavior, highlight the need for additional research or may reiterate the importance of prioritizing individual experiences over diagnostic labels.

3 Research Approach

3.1 Recruitment and Planning

In this qualitative study, flexible data collection techniques are employed to accommodate individualized collaboration and allow for adjustments and iterations as needed. To create a collaborative and communal experience from the get-go, relevant literature on collaborative qualitative research with neurodivergent groups (Szulc 2023) was consulted before recruitment and planning. The focus on a neurodivergent re-storying of neuromixed conversations is led by literature on neurodiversity studies (Rosqvist et al. 2020, Bertilsdotter Rosqvist et al. 2023) and intersectionality (Attoe & Climie 2023, Morgan 2023, Glasofer & Dingley 2022, Rosentel et al. 2021, Hillary 2020, Glenn 2022, Kelly et al. 2022, Rainer et al. 2023, Goetz & Adams 2022). Szulc (2023) argues that in recruitment and planning, it is vital to include key information about the research project, provide sample questions, and share information on the research team through, for instance, a short bio (Szulc 2023). Hence, the first author, who conducted and analyzed the interviews, furnished a comprehensive interview guide supplemented with a brief biography approximately two weeks prior to the interview scheduling. In that bio, the author stated that they are neurodivergent and shared their special interests. The interview guide includes a thorough explanation of key themes and why questions surrounding gender could be relevant. To emphasize the collaborative aspect, different ways of getting in touch before responding to the questions were offered. Further, it was emphasized that the interview guide was open for debate and adjustments. Participants engaged in improving the clarity and readability of the guide.

3.2 Data Collection

The interview guide, along with a brief biography of the first author, was disseminated to a private forum within the creative department of an international corporation with approximately four thousand employees headquartered in Asia, and to a semi-private network of neurodivergent professionals. A total of nine semi-structured interviews were conducted in English. The low response rate can be attributed to various factors, including the collaborative nature of the interviews, potentially inducing feelings of overwhelm. Additionally, some individuals hesitated due to (a) imposter syndrome, (b) fear of sounding "incompetent", and (c) uncertainty about their neurodivergence without clinical diagnoses. Again, obtaining clinical diagnoses is challenging due to biases,

privilege, and time constraints (Morgan 2023, Zhao et al. 2023). Moreover, research indicates a significant correlation between ADHD, stigma, low self-esteem, and imposter syndrome symptoms, potentially contributing to individuals' reluctance to share personal experiences (Hailey 2023).

All interviews were carried out by an AFAB neurodivergent researcher. The interviews, averaging twenty-five minutes each, prioritized participant agency and a low-sensory time and environment. Time, place, format, and means of the dialogue were chosen by interviewees (Szulc 2023) to allow for a comfortable setting. Three participants engaged via chat and two via email with the first author to improve the interview guide before the actual interviews took place. The interview questions primarily addressed experiences with neuromixed remote meetings and factors that enhance well-being during digital communication in the neuronormative work context. For example: (a) Do you or did you prepare yourself differently for online meetings compared to in-person meetings at the workplace? (b) Are there any aspects about remote meetings or work that you prefer as compared to in-person meetings or work situations? If so, why? The favored interview formats included conducting interviews either via Teams with cameras off, following a written interview guide, or through email correspondence. Interviewees received direct debriefing, including information on project milestones and deadlines for orientation. The median age of participants is 35, with three *of us* residing in East Asia and six in Europe. All participants hold a college degree. Two interviewees work in the wider field of information technology, and seven are engaged in creative fields, primarily involving translation, writing, and editing tasks. Participants were asked whether they would like to share their gender identity and/or the sex assigned at birth. Hereafter, 'assigned a female label at birth' and 'assigned a male label at birth' will be abbreviated as AFAB and AMAB, respectively. Additionally, the comorbidity of Autism Spectrum Disorder and ADHD will be referred to as AuDHD. One individual preferred not to disclose their diagnosis publicly and thus chose the label neurodivergent. Please refer to Table 1 for further details on the distribution of gender and neuro-identities among the interviewees.

Table 1. Collaborators

<i>One of Us</i>	Gender Identity/Assigned Sex	Neurotype
A	Female/AFAB	ADHD
B	Female/AFAB	ADHD
C	Female/AFAB	ADHD
D	Female/AFAB	Neurodivergent
E	Non-Binary/AFAB	ADHD
F	Non-Binary/AFAB	AuDHD
G	Non-Binary/AMAB	AuDHD
H	Male/AMAB	ADHD & Dysthymia
I	Male/AMAB	AuDHD

3.3 Data Analysis

The methodological approach adopted in this study, incorporating regular engagement with interviewees, aims to mitigate potential bias and align with established literature (Morgan 2023, Walsh 2003). This approach cultivates reflective practices concerning researcher positionality, methodological choices, and interpersonal dynamics. Audio interviews were transcribed using the software 'f4transcript'. As discussed in section 3.1, to enable an intersectional exploration of the data and promote collaboration, prior works by Morgan (2023) and Szulc (2023) were consulted to guide the methodological approach. Using the Gioia method (Gioia et al. 2013), the written interview texts underwent multiple readings to develop a comprehensive understanding of the narratives. Initial codes were generated through iterative line-by-line open-coding (Charmaz 2014). Subsequently, focused coding was conducted to consolidate initial codes and establish analytical coherence. The texts were then revisited considering these new focused codes (Charmaz 2014). Finally, the codes were aggregated into second-order themes and subsequently into three third-order dimensions: *episodic technorelief*, *chronic technocomfort*, and *technostress*, to subsume our data (Gioia et al. 2013). This approach facilitated an intersectional exploration of the data. Prioritizing intersectionality is crucial, particularly in areas with limited research, to amplify a broad spectrum of voices and experiences (Thomson 2010, Morgan 2023). Consequently, an interpretivist intersectional paradigm, which emphasizes multiple interpretations, was employed.

4 Findings

The findings of this paper comprise three major dimensions: individuals' *chronic technocomfort* and *episodic technorelief* within neuromixed remote work. Additionally, themes related to *technostress* were identified. Overall, participants reached a consensus that remote work considerably reduces stress compared to the confines of a corporate office environment. As one interviewee succinctly put it, "I do not think that I can ever go back working in an office" (one of us C, ADHD). Due to the parsimony of the paper, we could not include the entire data structure table (Gioia et al. 2013). Figure 1 summarizes our findings, depicting the aggregated dimensions and reflecting both first and second order concepts. For example, the first order concept "I greatly benefit from the focus on text communication" is aggregated into the second order theme 'use of ICTs alleviate stressors', referring to *episodic technorelief*.

4.1 Technocomfort

All AFAB participants noted that office environments often exert pressure to conform to feminine presentation norms, which can include expectations to wear uncomfortable clothes and makeup. Consequently, as emphasized by one interviewee, leveraging technology for remote work significantly enhances job-related well-being: "Having no societal pressure to dress 'properly' is wonderful. I get to feel comfortable in sweatpants or pajamas, and I don't have to worry about dealing with menstrual issues in a public space" (one of us D, neurodivergent). Another interviewee further underscores

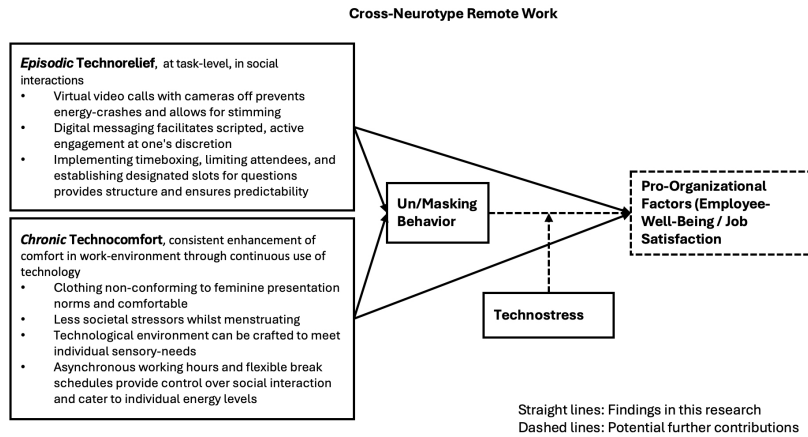


Fig. 1. Cross-Neurotype Remote Work

the additional stress of menstruating while being at the office, explaining the challenge of managing conflicting situations while maintaining a composed demeanor: “I find it perplexing how I am supposed to maintain a smile while bleeding in public and enduring uncomfortable clothing, yet simultaneously fulfill my work obligations and remain prepared for trivial small talk at any moment” (one of us F, AuDHD). Remote work, within a more controlled and less hostile environment (e.g. at home), is considered less burdensome by the interviewees and hints toward feelings of *technocomfort*. Emphasized through *technocomfort*, individuals experience a reduced need for masking in the work environment, facilitated by the IT-enabled option for remote work. Furthermore, one person described the challenges of office dynamics, noting, “It is very hard to focus on my task when colleagues’ emotional states seem to be constantly reflected in my body (...) It’s exhausting” (one of us G, AuDHD). Another participant shared extreme measures taken to cope with frequent interruptions, including arriving at the office early to focus before distractions arose and staying late into the evening to work in peace, ultimately resulting in burnout (one of us F, AuDHD). This sets the stage for exploring how technology empowers individuals to control their work environment, fostering *technocomfort* and thereby enhancing productivity.

All of us unanimously agreed on the significant reduction of sensory stressors associated with office environments, particularly open-space offices, when working remotely. Hereby, highlighting the adaptability of the home environment to individual needs, contrasting it with the often conflicting demands of colleagues in office settings, such as temperature preferences, lighting levels, and the need for social interaction. One interviewee noted that they “get much more work done at home, because nobody distracts me simply by passing by my office door” (one of us I, AuDHD). Additionally, having more control over environmental stimuli and social interactions was noted to limit the occurrence of meltdowns and energy crashes (one of us B, ADHD). Three interviewees pointed out that aforementioned stimuli present in office environments, can trigger migraines (F, AuDHD & I, AuDHD & D, neurodivergent). Furthermore, the ability to “follow routines independently” and experience “less supervisor control” were identified

as key advantages of remote work in terms of autonomy, leading to *technocomfort* (E, ADHD & H, ADHD & Dysthymia & F, AuDHD & G, AuDHD & I, AuDHD). This decreased need to adapt to the environment results in reduced masking behavior: “When I work from home, I feel less pressured to conform to norms like sitting ‘normally’ or not wearing sunglasses, even though my eyes are sensitive”, highlighting how remote environments allow “me to move and behave” without the need for masking (one of us F, AuDHD). Participants also emphasized the flexibility of remote work, allowing to work during most productive hours, even if it’s later in the day. This theme emerged consistently throughout the conversations, indicating the importance of accommodating individual productivity peaks to enhance performance.

4.2 Technorelief

With the COVID-19 pandemic, remote work and digital written communication were embraced, being perceived as conducive to reducing stress. Participants appreciate the control over communication and interruptions afforded by digital platforms, contrasting with the disruptions experienced in office settings. The combination of setting boundaries and relying on text-based communication emerged as a recurring theme, facilitating active engagement at one’s discretion: “I greatly benefit from the focus on text communication (...) With text messages, which is how most of our communication is handled with remote work, I get to actively decide when to engage and when to be left alone” (one of us D, neurodivergent). This alleviates the need for masking prompted by the stress of immediate responses and communication demands. Additionally, participants noted that using digital messages allowed them more time to *prepare* for conversations, crafting questions and potential responses. Again, this enhances sense of control during interactions, feeling reassured by having structured and scripted discourse to follow rather than needing to engage in spontaneous conversation. Some participants mentioned using tools like ChatGPT to reflect on their messages before sending them to colleagues (F, AuDHD & G, AuDHD). These findings underline feelings of *technorelief* as they portray how the use of technology alleviates stressors inherent to analog communication.

4.3 Technostress

Audiovisual online meetings generally require less preparation from participants but can be significantly more draining compared to in-person sessions when cameras are required to be switched on. One participant expressed, “It feels like I need to stare and perform the entire time (...) Camera meetings exhaust me immensely (...) I usually plan some time away from the PC or at least schedule ‘solo work’, aka tasks that require no further social interaction (...) Please let’s make cameras always optional. Please.” (one of us D, neurodivergent). Another participant likened online meetings with cameras to “having to stare into colleagues’ soul” (one of us F, AuDHD). In contrast, when cameras are not mandatory during remote sessions, they are perceived as far less stressful than in-person meetings, because interviewees feel less compelled to mask. The absence of ‘obnoxious face galleries’ alleviates pressure, allowing individuals to engage in stimming. Examples provided by interviewees include simultaneously watching a show or pacing

in circles. All agreed that keeping their hands busy, whether by doing chores like laundry or fidgeting, provides essential relief. As one interviewee stated, “I found that it is harder for me to focus if my hands ‘rest’, it helps my focus to have something to do while talking and thinking” (one of us D, neurodivergent).

Online meetings also introduce new sources of insecurity related to technology and meeting-culture. For instance, one participant expressed anxiety about differences in equipment usage, such as using a full-on headset versus a clip-on Bluetooth piece, and concerns about the quality of colleagues’ microphones, having “them sounding like they’re using a tin can and a piece of string” (one of us H, ADHD & Dysthymia). Also, navigating interruptions caused by lagging internet connections during conversations poses a challenge. Most participants noted a lack of structure in remote meetings, leading to unnecessary length and chaos. This included meetings scheduled abruptly without clear objectives, which could have been addressed more efficiently via “a three sentence E-Mail” (one of us A, ADHD). To address these issues, one participant suggested implementing timeboxing, limiting attendees to essential personnel, and establishing designated times for questions (one of us I, AuDHD). These recommendations are directed towards organizations to improve meeting efficiency.

5 Discussion

This study aims to gain a deeper understanding of underrepresented groups, in this case ADHD:ers, within information systems research (Marabelli et al. 2023). We explore how neurodivergent individuals experience the remote workplace. Despite affecting approximately one-fifth of the population (Doyle 2020), neurodivergence has been largely overlooked in information systems research. From our findings, we conclude that for neurodivergent individuals, remote work can be advantageous in decreasing masking behaviors on two different levels: *chronic technocomfort* and *episodic technorelief*. However, evidence of *technostress* emerged when individuals lacked the freedom to control their technological setup and environment.

All participants in this research preferred remote work over in-situ work. The reported experiences around gender performance and menstruation align with recent studies suggesting that individuals on the autism spectrum may experience heightened sensory overstimulation and difficulties in regulating emotions and behavior during menstruation (Steward et al. 2020). As such, Steward et al. (2020) note, menstruation intersects with social norms and stereotypes of femininity, shaping interactions in key realms, such as gender/sex identity and public bathroom access. These are influenced by the biologically and socially constructed gender/sex binary, imposing preexisting constraints on trans and genderqueer menstruators’ experiences in social and physical environments (Frank & Dellaria 2020, Steward et al. 2020). Hence, it makes sense that individuals find *technocomfort* in remote work, within a more controlled and less hostile environment. Additionally, according to participants, the *technocomfort* of exerting control over the work environment fosters feelings of contentment and, consequently, enhances productivity. Research indicates that digital communication tools alleviate cognitive burden and social anxiety, supporting participants’ experiences with remote work dynamics (Saigot 2024). *Technocomfort*, being chronic, arises from the continuous

use of technologies in remote work, which consistently enhance individuals' comfort in their work environment.

Given the prevalence of sleep disorders among ADHD:ers and people on the autism spectrum (Singh & Zimmerman 2015), the *technocomfort* of asynchronous working hours can be particularly beneficial for individuals who struggle with insomnia or find themselves more productive during nighttime hours (Kalmanovich-Cohen & Stanton 2023). Providing employees with greater control and agency over their work schedules translates to fostering increased flexibility from an organizational standpoint.

Furthermore, digital communication fosters *technorelief*, promoting active engagement and boundary-setting, which reinforces findings from previous studies (Saigot 2024). The *episodic technorelief* contrasts with *technocomfort*, emerging during virtual interactions and alleviating stress in social work-related situations. *Technorelief* is also experienced at the task-level, aiding individuals in communication and responding to colleagues' requests. Participants noted that digital messaging provided them with extra time to prepare for conversations, enhancing their sense of control during interactions. Some participants mentioned using tools like ChatGPT to reflect on their messages before sending. These findings align with previous research suggesting that individuals on the autism spectrum prefer the combination of flexible response time, preparedness, and written communication (Saigot 2024, Hull et al. 2017). However, remote work can also induce *technostress*, when the technological setup is forced upon individuals. Participants emphasized experiencing stress when required to turn on their cameras during remote meetings. These experiences align with research suggesting that VC meetings feel draining, akin to staring closely and eye-to-eye at a "gallery" of faces, as mentioned in section 2.3 (Parmar et al. 2021). However, this contrasts with some prior research with employees on the autism spectrum, which found the camera to be a less stressful proxy for eye contact (Saigot 2024). Participants experience *technorelief* during meetings with VC tools when they can switch off their cameras, reducing the need to mask. Similarly, Saigot (2023) suggests that engaging in stimming feels safer when it can be hidden from interlocutors. Furthermore, turning off cameras helps prevent sharing motor tics associated with Tourette's syndrome and reduces self-presentation-related concerns for individuals on the autism spectrum (Zolyomi et al. 2019, Szulc 2022, Tang 2021). Discrepancies may be attributed to the comorbidity of ADHD among participants on the autism spectrum or individual variations in needs and comfort zones. Thus, organizations may benefit from focusing on individual characteristics and needs rather than diagnoses (Kalmanovich-Cohen & Stanton 2023). As indicated by previous research and this study, there is a tension in remote collaborations, where effectiveness often relies on a standardized setup, such as having cameras turned on (Waizenegger et al. 2020). However, previous research has largely overlooked the perspective of neurodivergent individuals, particularly in neuromixed remote work collaborations, where a nuanced understanding of the necessary technological setup and boundaries is crucial. This study initiates a novel discussion bridging previous findings on remote work with a heightened focus on individual differences, particularly for ADHD:ers. Interestingly, the proposed adaptations in this research might also benefit non-neurodivergent groups and those unaware of their neurodivergence. Organizations are invited to contemplate why it falls

upon neurominorities, who have been *named* antisocial and worse, to facilitate both decent neuromixed conversations and work environments for all.

6 Limitations and Future Work

The collection of experiences in this article comes from individuals with different identities and positionalities regarding, for instance, class, gender, and a/sexuality. Some grew up with internalized ableism and/or were diagnosed *later in life*, therefore coping with and dismantling neuroconventional relational contexts and “dis/ability and the promises of neurodiversity” in different ways (Bertilsdotter Rosqvist et al. 2023, Thomas 2004). In neuromixed conversations, neurominority positions are forced into hiding, or masking, which has dramatic consequences for health in neurominority populations. These structural aspects could contribute to a lower response rate, as well as potentially inducing feelings of overwhelm due to the collaborative nature of the research. Future studies from a neurodivergent perspective could further develop our findings to gain a more nuanced understanding of how *technocomfort* and *technorelief* affect un/masking behavior. While one technology might provide *technorelief* in some situations, another might cause *technostress*. Future research should explore how different technologies affect *technorelief*, *technostress*, and masking behavior in neuromixed communication and collaboration.

Future research could employ a longitudinal approach to investigate how un/masking behaviors are affected by *technorelief* and *technocomfort*, and how these influence job-related constructs such as job satisfaction and well-being. We recognize the partial explanatory power of person-environment fit (Kristof-Brown & Guay 2011) for a subset of our data concerning *technocomfort*, *technorelief*, and *technostress*. As outlined in section 2.1, there exists a discernible correlation between privileges and the probability of diagnoses with ADHD (Goetz & Adams 2022). Since all *collaborators* in this contribution have access to health care, it clearly lacks experiences of those who don’t and/or are still struggling to be diagnosed. As this paper delves into issues concerning narratives about dis/ability and employment, it is imperative to underscore that an individual’s value should never be contingent upon their professional pursuits or quantifiable work hours. This discussion is not aimed at, nor can it construct a programmatic tool for organizations to increase *participation* of neurodivergent individuals in the labor force solely to accrue more quantifiable work hours. Rather, it serves as an endeavor to reconceptualize communication dynamics, particularly within the workplace that can inform other kinds of conjunctural work with a primary emphasis on fostering greater empathy and compassion among individuals.

This collaborative research aims to provide insights from within the neurodivergent community rather than being viewed through an external, neurotypical gaze (McDermott 2021, Bertilsdotter Rosqvist et al. 2023). The shared insights and recommendations are intended to improve neuromixed communication (Hillary 2020), challenging external perceptions, fostering longitudinal change beyond the neurodivergent community. In essence, by alleviating the burden of masking, it is evident that ICTs alone cannot address the fundamental issue of ableism. However, they may contribute to mitigating some of its consequences, albeit temporarily and within specific digital contexts.

References

- Attoe, D. E. & Climie, E. A. (2023), 'Miss. diagnosis: A systematic review of adhd in adult women', *Journal of Attention Disorders* 27(7), 645–657.
- Attwood, A. (2006), *The complete guide to Asperger's syndrome*, Jessica Kingsley Publishers, London, UK.
- Ayyagari, R., Grover, V. & Purvis, R. (2011), 'Technostress: Technological antecedents and implications', *MIS Quarterly* 35(4), 831–858.
- Bailenson, J. N. (2021), 'Nonverbal overload: A theoretical argument for the causes of Zoom fatigue.', *Technology, Mind, and Behavior* 2(1).
- Bertilsdotter Rosqvist, H., Hultman, L., Österborg Wiklund, S., Nygren, A., Storm, P. & Sandberg, G. (2023), 'Naming ourselves, becoming neurodivergent scholars', *Disability & Society* pp. 1–20.
- Bruchmüller, K., Margraf, J. & Schneider, S. (2012), 'Is adhd diagnosed in accord with diagnostic criteria? overdiagnosis and influence of client gender on diagnosis.', *Journal of consulting and clinical psychology* 80(1), 128.
- Cassidy, S. (2020), Suicidality and Self-Harm in Autism Spectrum Conditions, in 'The Oxford Handbook of Autism and Co-Occurring Psychiatric Conditions', Oxford University Press.
- Cassidy, S., Au-Yeung, S., Robertson, A., Cogger-Ward, H., Richards, G., Allison, C., Bradley, L., Kenny, R., O'Connor, R., Mosse, D. et al. (2022), 'Autism and autistic traits in those who died by suicide in england', *The British Journal of Psychiatry* 221(5), 683–691.
- Cassidy, S., Bradley, P., Robinson, J., Allison, C., McHugh, M. & Baron-Cohen, S. (2014), 'Suicidal ideation and suicide plans or attempts in adults with asperger's syndrome attending a specialist diagnostic clinic: a clinical cohort study', *The Lancet Psychiatry* 1(2), 142–147.
- Charmaz, K. (2014), *Constructing grounded theory*, SAGE Publications Ltd.
- da Silva, A. G., Malloy-Diniz, L. F., Garcia, M. S. & Rocha, R. (2020), 'Attention-deficit/hyperactivity disorder and women', *Women's Mental Health: A Clinical and Evidence-Based Guide* pp. 215–219.
- Das, M., Tang, J., Ringland, K. E. & Piper, A. M. (2021), 'Towards accessible remote work: Understanding work-from-home practices of neurodivergent professionals', *Proceedings of the ACM on Human-Computer Interaction* 5(CSCW1), 1–30.
- Doyle, N. (2020), 'Neurodiversity at work: a biopsychosocial model and the impact on working adults', *British Medical Bulletin* 135(1), 108.
- Fauville, G., Luo, M., Queiroz, A. C., Bailenson, J. N. & Hancock, J. (2021), 'Zoom exhaustion & fatigue scale', *Computers in Human Behavior Reports* 4, 100119.
- Francis, B. & Hey, V. (2009), 'Talking back to power: Snowballs in hell and the imperative of insisting on structural explanations', *Gender and Education* 21(2), 225–232.
- Frank, S. E. & Dellaria, J. (2020), 'Navigating the binary: A visual narrative of trans and genderqueer menstruation', *The Palgrave handbook of critical menstruation studies* pp. 69–76.

- Gioia, D. A., Corley, K. G. & Hamilton, A. L. (2013), 'Seeking qualitative rigor in inductive research: Notes on the gioia methodology', *Organizational research methods* 16(1), 15–31.
- Glasofer, A. & Dingley, C. (2022), 'Diagnostic and medication treatment disparities in african american children with adhd: A literature review', *Journal of Racial and Ethnic Health Disparities* pp. 1–22.
- Glenn, D. (2022), 'Neuroqueer Heresies: Notes on the Neurodiversity Paradigm, Autistic Empowerment, and Postnormal Possibilities', *World Futures* 78(5), 339–341.
- Goetz, T. G. & Adams, N. (2022), 'The transgender and gender diverse and attention deficit hyperactivity disorder nexus: A systematic review', *Journal of Gay & Lesbian Mental Health* pp. 1–18.
- Gould, J. & Ashton-Smith, J. (2011), 'Missed diagnosis or misdiagnosis? girls and women on the autism spectrum', *Good Autism Practice (GAP)* 12(1), 34–41.
- Griffiths, S., Allison, C., Kenny, R., Holt, R., Smith, P. & Baron-Cohen, S. (2019), 'The vulnerability experiences quotient (veq): A study of vulnerability, mental health and life satisfaction in autistic adults', *Autism Research* 12(10), 1516–1528.
- Hailey, K. (2023), 'Diversity in diagnosis: A comparative relationship between the social behavioral effects and timing of adhd diagnosis in african american adults', *Senior Projects Spring 2023* .
- Hassrick, E. M., Holmes, L. G., Sosnowy, C., Walton, J. & Carley, K. (2021), 'Benefits and risks: A systematic review of information and communication technology use by autistic people', *Autism in Adulthood* 3(1), 72–84.
- Hillary, A. (2020), 'Neurodiversity and cross-cultural communication', *Neurodiversity studies: A new critical paradigm* pp. 91–107.
- Hinshaw, S. P., Nguyen, P. T., O'Grady, S. M. & Rosenthal, E. A. (2022), 'Annual research review: Attention-deficit/hyperactivity disorder in girls and women: underrepresentation, longitudinal processes, and key directions', *Journal of Child Psychology and Psychiatry* 63(4), 484–496.
- Hull, L., Petrides, K., Allison, C., Smith, P., Baron-Cohen, S., Lai, M.-C. & Mandy, W. (2017), "'putting on my best normal": Social camouflaging in adults with autism spectrum conditions', *Journal of autism and developmental disorders* 47, 2519–2534.
- Kalmanovich-Cohen, H. & Stanton, S. J. (2023), 'How can work from home support neurodiversity and inclusion?', *Industrial and Organizational Psychology* 16(1), 20–24.
- Kelly, C., Sharma, S., Jieman, A.-T. & Ramon, S. (2022), 'Sense-making narratives of autistic women diagnosed in adulthood: a systematic review of the qualitative research', *Disability & Society* pp. 1–33.
- Klefsjö, U., Kantzer, A. K., Gillberg, C. & Billstedt, E. (2021), 'The road to diagnosis and treatment in girls and boys with adhd—gender differences in the diagnostic process', *Nordic journal of psychiatry* 75(4), 301–305.
- Kopp, S. & Gillberg, C. (2011), 'The autism spectrum screening questionnaire (assq)-revised extended version (assq-rev): An instrument for better capturing the autism phenotype in girls? a preliminary study involving 191 clinical cases and community controls', *Research in developmental disabilities* 32(6), 2875–2888.
- Kristof-Brown, A. & Guay, R. P. (2011), 'Person–environment fit', *APA handbooks in psychology* .

- Lai, M.-C., Lombardo, M. V., Pasco, G., Ruigrok, A. N., Wheelwright, S. J., Sadek, S. A., Chakrabarti, B., Consortium, M. A. & Baron-Cohen, S. (2011), 'A behavioral comparison of male and female adults with high functioning autism spectrum conditions', *PloS one* 6(6), e20835.
- Maier, C., Laumer, S. & Eckhardt, A. (2015), 'Information technology as daily stressor: Pinning down the causes of burnout', *Journal of Business Economics* 85, 349–387.
- Maier, C., Laumer, S., Wirth, J. & Weitzel, T. (2019), 'Technostress and the hierarchical levels of personality: a two-wave study with multiple data samples', *European Journal of Information Systems* 28(5), 496–522.
- Marabelli, M., Zaza, S., Masiero, S., Li, J. & Chudoba, K. (2023), 'Diversity, equity and inclusion in the ais: Challenges and opportunities of remote conferences', *Information Systems Journal* 33(6), 1370–1395.
- McDermott, C. (2021), 'Theorising the neurotypical gaze: Autistic love and relationships in the bridge (bron/broen 2011–2018)', *Medical humanities* .
- Milton, D. E. (2012), 'On the ontological status of autism: The 'double empathy problem'', *Disability & society* 27(6), 883–887.
- Morgan, J. (2023), 'Exploring women's experiences of diagnosis of adhd in adulthood: a qualitative study', *Advances in Mental Health* pp. 1–15.
- Mowlem, F., Agnew-Blais, J., Taylor, E. & Asherson, P. (2019), 'Do different factors influence whether girls versus boys meet adhd diagnostic criteria? sex differences among children with high adhd symptoms', *Psychiatry research* 272, 765–773.
- Mueller, C., Maedche, A., Schwabe, G., Ackerman, M. & Wulf, V. (2023), 'Home office: Working from a private place', *Business & Information Systems Engineering* 65(3), 233–234.
- Mullis, C. (2019), 'Reflection: autistic-coded characters and fans in fandom', *Canadian Journal of Disability Studies* 8(2), 147–156.
- MyDisabilityJob (2024a), 'Adhd employment statistics | update 2024', <https://mydisabilityjobs.com/statistics/adhd-employment/>. Accessed: 21.02.2024.
- MyDisabilityJob (2024b), 'Autism and employment statistics – update 2024', <https://mydisabilityjobs.com/statistics/autism-employment/>. Accessed: 21.02.2024.
- Nadler, R. (2020), 'Understanding "zoom fatigue": Theorizing spatial dynamics as third skins in computer-mediated communication', *Computers and Composition* 58, 102613.
- Nussbaum, N. L. (2012), 'Adhd and female specific concerns: a review of the literature and clinical implications', *Journal of attention disorders* 16(2), 87–100.
- Parmar, K. R., Porter, C. S., Dickinson, C. M., Pelham, J., Baimbridge, P. & Gowen, E. (2021), 'Visual sensory experiences from the viewpoint of autistic adults', *Frontiers in Psychology* 12, 633037.
- Pearson, A. & Rose, K. (2021), 'A conceptual analysis of autistic masking: Understanding the narrative of stigma and the illusion of choice', *Autism in Adulthood* 3(1), 52–60.
- Pelton, M. K., Crawford, H., Robertson, A. E., Rodgers, J., Baron-Cohen, S. & Cassidy, S. (2020), 'Understanding suicide risk in autistic adults: Comparing the interpersonal theory of suicide in autistic and non-autistic samples', *Journal of autism and developmental disorders* 50, 3620–3637.

- Quinn, P. O. & Madhoo, M. (2014), 'A review of attention-deficit/hyperactivity disorder in women and girls: uncovering this hidden diagnosis', *The primary care companion for CNS disorders* 16(3), 27250.
- Ragu-Nathan, T., Tarafdar, M., Ragu-Nathan, B. S. & Tu, Q. (2008), 'The consequences of technostress for end users in organizations: Conceptual development and empirical validation', *Information systems research* 19(4), 417–433.
- Rainer, T., Lim, J. K., He, Y., Perdomo, J., Nash, K. A., Kistin, C. J., Tolliver, D. G., McIntyre, E. & Hsu, H. E. (2023), 'Structural racism in behavioral health presentation and management', *Hospital pediatrics* 13(5), 461–470.
- Robertson, C. E. & Baron-Cohen, S. (2017), 'Sensory perception in autism', *Nature Reviews Neuroscience* 18(11), 671–684.
- Rosentel, K., López-Martínez, I., Crosby, R. A., Salazar, L. F. & Hill, B. J. (2021), 'Black transgender women and the school-to-prison pipeline: Exploring the relationship between anti-trans experiences in school and adverse criminal-legal system outcomes', *Sexuality Research and Social Policy* 18, 481–494.
- Rosqvist, H. B., Chown, N. & Stenning, A. (2020), *Neurodiversity studies: A new critical paradigm*, Routledge.
- Saigot, M. (2024), Unveiling technorelief: Enhancing neurodiverse collaboration with digital capabilities, Proceedings of the Annual Hawaii International Conference on System Sciences, United States, pp. 6921–6931.
- Singh, K. & Zimmerman, A. W. (2015), Sleep in autism spectrum disorder and attention deficit hyperactivity disorder, in 'Seminars in pediatric neurology', Vol. 22, Elsevier, pp. 113–125.
- Srivastava, S. C., Chandra, S. & Shirish, A. (2015), 'Technostress creators and job outcomes: theorising the moderating influence of personality traits', *Information Systems Journal* 25(4), 355–401.
- Steward, R., Crane, L., Roy, E. M., Remington, A. & Pellicano, E. (2020), "'life is much more difficult to manage during periods": autistic experiences of menstruation', *The Palgrave Handbook of Critical Menstruation Studies* pp. 751–761.
- Szulc, J. M. (2022), 'Amo model for neuro-inclusive remote workplace', *Personnel Review* 51(8), 1867–1882.
- Szulc, J. M. (2023), 'Towards more inclusive qualitative research: the practice of interviewing neurominorities', *Labour and Industry* 33(2), 179–187.
- Tang, J. (2021), 'Understanding the telework experience of people with disabilities', *Proceedings of the ACM on Human-Computer Interaction* 5(CSCW1), 1–27.
- Tarafdar, M., Pullins, E. B. & Ragu-Nathan, T. (2015), 'Technostress: negative effect on performance and possible mitigations', *Information Systems Journal* 25(2), 103–132.
- Thomas, C. (2004), 'Rescuing a social relational understanding of disability', *Scandinavian Journal of Disability Research* 6(1), 22–36.
- Thomson, S. B. (2010), 'Sample size and grounded theory', *Thomson, SB (2010). Grounded Theory-Sample Size. Journal of Administration and Governance* 5(1), 45–52.
- Tomczak, M. T., Mpofu, E. & Hutson, N. (2022), 'Remote work support needs of employees with autism spectrum disorder in poland: Perspectives of individuals with autism and their coworkers', *International journal of environmental research and public health* 19(17), 10982.

- Waite, R. (2010), 'Women with adhd: It is an explanation, not the excuse du jour', *Perspectives in Psychiatric Care* 46(3), 182–196.
- Waizenegger, L., McKenna, B., Cai, W. & Bendz, T. (2020), 'An affordance perspective of team collaboration and enforced working from home during covid-19', *European Journal of Information Systems* 29(4), 429–442.
- Walsh, R. (2003), 'The methods of reflexivity', *The Humanistic Psychologist* 31(4), 51–66.
- Wing, L. (1981), 'Sex ratios in early childhood autism and related conditions', *Psychiatry research* 5(2), 129–137.
- Young, S., Adamo, N., Ásgeirsdóttir, B. B., Branney, P., Beckett, M., Colley, W., Cubbin, S., Deeley, Q., Farrag, E., Gudjonsson, G. et al. (2020), 'Females with adhd: An expert consensus statement taking a lifespan approach providing guidance for the identification and treatment of attention-deficit/hyperactivity disorder in girls and women', *BMC psychiatry* 20(1), 1–27.
- Zhao, X., Hayes, T., Timmons, A. C., Wu, W. & Frazier, S. L. (2023), 'Unpacking inequities in adhd diagnosis: Examining individual-level race/ethnicity and state-level online information-seeking patterns', *Administration and Policy in Mental Health and Mental Health Services Research* pp. 1–15.
- Zolyomi, A., Begel, A., Waldern, J. F., Tang, J., Barnett, M., Cutrell, E., McDuff, D., Andrist, S. & Morris, M. R. (2019), 'Managing stress: the needs of autistic adults in video calling', *Proceedings of the ACM on Human-Computer Interaction* 3(CSCW), 1–29.