# Beyond Individual Accommodations: The Collaborative Practices of ADHD Students in Post-Secondary Education

VITICIA XIANG WEI ARNOLD, University of California, Irvine, USA AEHONG MIN, University of California, Irvine, USA CLARISSE BONANG, University of California, Irvine, USA SOHYEON PARK, University of California, Irvine, USA GILLIAN R. HAYES, University of California, Irvine, USA ANNE MARIE PIPER, University of California, Irvine, USA

Attention-Deficit/Hyperactivity Disorder (ADHD) affects millions of individuals worldwide, significantly impacting their academic, social, and professional lives. ADHD students in higher education have faced difficulties with time management, organization, focus, and emotional regulation, which impact their academic performance. Through an analysis of discussions within a Reddit community for ADHD university students, we found that accommodations and general study strategies are often inadequate for them. Instead, they develop and share collaborative, community-based strategies to support their academic success, which include (1) participating in diverse forms of co-presence or body doubling for accountability and focus while studying; (2) engaging in active collaborative support with social partners to manage emotions and distractions, and (3) leveraging community-based support for remembering deadlines, staying accountable, and fostering a sense of belonging. We conclude with a discussion of these strategies with respect to literature on co-presence and design considerations for future assistive technologies and accommodations for ADHD students.

CCS Concepts: • Human-centered computing → Empirical studies in accessibility.

Additional Key Words and Phrases: ADHD, university, accessibility, collaboration, body doubling, co-presence, higher education

#### **ACM Reference Format:**

Viticia Xiang Wei Arnold, Aehong Min, Clarisse Bonang, Sohyeon Park, Gillian R. Hayes, and Anne Marie Piper. 2025. Beyond Individual Accommodations: The Collaborative Practices of ADHD Students in Post-Secondary Education . In *The 27th International ACM SIGACCESS Conference on Computers and Accessibility (ASSETS '25), October 26–29, 2025, Denver, CO, USA*. ACM, New York, NY, USA, 22 pages. https://doi.org/10.1145/3663547.3746324

#### 1 Introduction

Attention-Deficit/Hyperactivity Disorder (ADHD) affects millions of people worldwide, significantly impacting their academic, social, and professional lives [9, 54, 80]. Recently, an increasing number of college students have been formally diagnosed with ADHD (approximately 16% globally) [2, 70], with many more identifying with ADHD without a formal

Authors' Contact Information: Viticia Xiang Wei Arnold, vxarnold@uci.edu, University of California, Irvine, USA; Aehong Min, aehongm@uci.edu, University of California, Irvine, USA; Sohyeon Park, sohypark@uci.edu, University of California, Irvine, USA; Sohyeon Park, sohypark@uci.edu, University of California, Irvine, USA; Gillian R. Hayes, gillianrh@ics.uci.edu, University of California, Irvine, USA; Anne Marie Piper, ampiper@uci.edu, University of California, Irvine, USA.

Please use nonacm option or ACM Engage class to enable CC licenses

This work is licensed under a Creative Commons Attribution 4.0 International License.

2025 Copyright held by the owner/author(s).

Manuscript submitted to ACM

Manuscript submitted to ACM

diagnosis [34]. ADHD students<sup>1</sup> often face additional challenges in higher education in time management, organization, focus, and emotional regulation, which impact academic performance [49]. Success in post-secondary education (e.g., college or university) is dependent on student behaviors (e.g., study habits, peer and faculty communication, time on task, and motivation) and institutional conditions (e.g., first-year experience, academic and peer support, campus environment, and pedagogy) [52]. Neurocognitive differences like ADHD often result in lower academic achievement despite higher than average intelligence [74]. ADHD Students may have developed unproductive study habits before attending university and struggle with tasks like maintaining medication adherence when transitioning from a highly controlled familial environment to one with more autonomy [3]. At the same time, even productive study habits may not match the institutional norms or culture of higher education [22, 85].

ADHD students often struggle in this new environment that was largely not built for their preferences and strengths. In particular, they can become overwhelmed by work related to different courses with faculty who are not coordinated in the same way that secondary education teachers typically are [55, 66]. To address executive functioning challenges, students often rely on strategies offered by their university disability service offices, counselors, and clinicians [92]. However, these strategies are often insufficient [29, 63], as ADHD college students with accommodations continue to experience lower academic success and higher dropout rates compared to neurotypical peers [24, 96]. In response, educators are turning to assistive learning technologies, like computer-assisted instruction and serious games, as alternative or supplementary forms of support for neurodivergent learners [6, 7, 35]. Similarly, students independently adopt technologies ranging from online community platforms like discord to accessibility tools, such as speech-to-text and reminder applications, to support academic self-management [30, 53].

While both individual accommodations and institutional support are essential to the success of ADHD students in higher education, our analysis focuses on collaborative support. Building on prior work examining collaborative ADHD practices, such as body doubling, we analyzed discussions from a Reddit community created by and for ADHD students at post-secondary educational institutions<sup>2</sup> to understand the strategies they use to navigate academic challenges in both informal and formal communities. Our findings show how ADHD college students (1) participate in diverse forms of co-presence or body doubling to create accountability and focus while studying; (2) engage in active collaborative support to help moderate emotional responses and manage distractions, and (3) leverage community-based support for remembering deadlines, staying accountable, and fostering a sense of belonging. Our analysis indicates a variety of opportunities for collaborative, community-based strategies to augment formal support structures and accommodations.

This study contributes to scholarship on collaborative technical practices for accessibility in three ways. First, it advances discussions on the interdependent nature of access [10, 19, 98] with a focus on ADHD college students. Second, it examines body doubling through the lens of co-presence, in both in-person and digitally mediated contexts, using both synchronous and asynchronous approaches. Third, it offers design insights for assistive technologies and accommodations in light of these findings.

# 2 Related Work

In this section, we provide background on the experiences of college students with ADHD. We then review prior work on online communities and their role in supporting disabled people. Finally, we outline related work on co-presence, including body doubling as a support strategy.

<sup>&</sup>lt;sup>1</sup>The terms "Student with ADHD" and "ADHD student" are both commonly used in literature. In this text, we use the term "ADHD student" to emphasize the identity-first language approach.

<sup>&</sup>lt;sup>2</sup>To enhance readability, we will use the term "college students" throughout this text to refer to individuals attending post-secondary educational institutions, including universities, community colleges, and other higher education institutions.

Manuscript submitted to ACM

# 2.1 The Experiences of ADHD College Students

Despite institutional efforts [5], developing inclusive and accessible environments for students with ADHD remains challenging [75]. Globally, educational institutions are seeing a rise in the identification of neurodiverse learners, including those with ADHD, autism, and other cognitive differences [79]. Similarly, in the U.S., national data shows increasing numbers of students with ADHD enrolling in postsecondary education, accompanied by a growing demand for accommodations and support services [71]. Universities [4, 16] and national groups (e.g., [40, 61]), have attempted to develop standards with limited success [78] and continued lower educational attainment for ADHD students [11, 54]. Students with ADHD also report higher rates of substance use [12] and mental health conditions (e.g., obsessivecompulsive symptoms, interpersonal sensitivity, depression, anxiety, hostility, and paranoid ideation) compared to their neurotypical peers [76]. Academic culture traditionally values neurotypical standards of concentration, memory, and time management [49], which can contribute to lower self-esteem and confidence in academic success among ADHD students [82]. Institutional accommodations often serve as "temporary fixes rather than providing genuine access" [22] requiring substantial effort by ADHD students to perform well [56].

Furthermore, challenges faced by ADHD adults in maintaining social relationships, interpreting social cues, and communicating thoughts and emotions [80] can lead to higher rates of peer rejection and social integration challenges [9, 28]. Platforms like Focusmate, StudyStream, and Twitch offer opportunities for collaboration and community support, which may be particularly valuable for ADHD students who often face challenges with social integration and peer rejection [9, 28]. By examining the role of collaboration and community support in the context of ADHD and higher education, we can better understand how to create more inclusive and accessible learning environments.

#### 2.2 Online Communities and Support for ADHD

Online communities have long supported the disabled community by providing connection, shared experiences, and peer support [33]. For neurodivergent people, including those with autism and ADHD, these virtual environments play a crucial role in fostering a sense of community and empowerment [27, 33, 39, 77]. Emerging from this context, the neurodivergent movement, largely driven by online collective action in the early 2000s [25], challenged traditional disability models and advocated for a more inclusive understanding of neurocognitive differences.

ADHD people often face stigma and misunderstanding [68]. In turn, ADHD specific forums and online communities have become spaces for collaboration, where people exchange support, share experiences, and collectively challenge stigma [33], ultimately amplifying their voices [27]. These dynamics have become even more significant as online and hybrid education modalities continue to expand post-COVID [99]. The shift toward remote and asynchronous learning environments has increased demand for digital forms of support and connection, especially among students with disabilities who may experience greater isolation or barriers in traditional classrooms [68]. By fostering connections, facilitating knowledge exchange, and empowering collective action, online platforms empower communities to challenge dominant narratives and forge new paths towards inclusivity and acceptance [27, 33]. Collaborative online spaces are similarly valuable for people with marginalized identities and health conditions (e.g. Alzheimer's, HIV, Huntington's disease, cancer, Tourette's and Tic disorders) [18, 47, 58, 87, 95], demonstrating the far-reaching impact of digital collaboration in promoting understanding, support, and empowerment across diverse populations. Such online communities offer insight into understanding how a community supports each other and discusses their experiences outside of a formal research setting [8, 37, 38].

#### 2.3 Co-Presence and Body Doubling

Coined by ADHD coach Linda Anderson in 1996, "body doubling" refers to a form of co-presence that helps people with ADHD stay accountable and focused [60]. Drawing on survey data, Eagle et al. [26] report on how neurodivergent people engage in body doubling practices (both in-person and online) to support the initiation and completion of a variety of tasks (e.g., homework, household chores, self-care). Although emerging research offers examples of body doubling, its relationship to co-presence and how it's mediated through technology remains underexplored. There is also a lack of research on collaborative practices developed by the ADHD community to support executive function (e.g., memory, emotional regulation, attention, focus, procrastination, and task initiation) essential to academic success [42, 49]. While body doubling has only recently entered the academic discourse [26], the notion of co-presence has been heavily theorized. Early work by Goffman introduced the concept of co-presence in his research of behavior in public spaces, as "when people sensed that they were able to perceive others and that others were able to actively perceive them" and where individuals are "accessible, available, and subject to one another" pp. 22 [36]. Similarly, Zhao describes co-presence as "a condition in which instant two-way human interactions can take place" [103]. Schroeder describes co-presence as the sense of "being there together" [81], focusing on the subjective experience of feeling together with someone in the same space [86]. Notably, in each of these definitions, there is no requirement for being physically together though the kind of virtual co-presence that has become the norm for post-pandemic industrialized society was unfathomable at the time of their writing.

Before our current highly connected era, scholars studied co-presence with digital technologies in ways that usefully prefigure this context. Dourish's 1996 study laid the groundwork for understanding how media spaces establish new social spaces. This work describes how these technologies connect the individuals interacting and create a new social environment linking entire contexts and augmenting rather than replacing other forms of interaction [23]. Shared visual spaces facilitate the exchange of understanding, particularly for visually complex tasks, allowing participants to see and understand each other's actions and intentions in real time [51]. Co-presence can exist in text-based environments [89] and live streaming [67]. Even in the absence of explicit spoken communication, the exchange of images or other information about current activities creates social spaces, which facilitate ambient co-presence and shared context from which interactions can begin [45].

While some research explores co-presence and collaborative work among neurodivergent individuals, primarily autistic people [20, 48, 90, 101], research on ADHD specific practices is limited [20, 26]. One study highlights how neurodivergent professionals adapt remote work to create accessible physical and digital workspaces, negotiate accessible communication practices, and balance productivity with wellbeing [20]. Eagle *et al.* [26] used survey data to define body doubling as a neurodivergent strategy situated along a continuum of space, time, and mutuality, identifying key motivations (*e.g.*, productivity, accountability) and patterns, such as engaging in body doubling with familiar individuals [26]. Building on this work, we examine the potential limitations of body doubling, its use in specific contexts, and the theoretical and conceptual underpinnings that make body doubling and related collaborative strategies work for ADHD college students.

## 3 Methods

To investigate the collaborative practices of ADHD college students, we conducted a mixed method study, including thematic analysis of Reddit data, comparative analysis of technology products, and semi-structured interviews of community member and moderators of an online community on Reddit. Our analysis focused on the strategies and Manuscript submitted to ACM

approaches students employ to manage their ADHD symptoms and navigate academic challenges, with a particular focus on practices that involve collaboration and social support. In the following sections, we describe the context of the study, our data collection and analysis procedures, and the ethical considerations involved in this research.

# 3.1 Context of Study: Online Community for ADHD College Students

Reddit is a large, publicly accessible forum that supports peer-driven communities. Given the relatively small population of post-secondary education students with ADHD, there are few dedicated online spaces for this group. Reddit hosts one of the most active and focused subreddits exclusively for ADHD students in higher education; allowing us to conduct naturalistic observations of how students share resources, strategies, and collaborative support with one another. Moreover the subreddit's focus on both undergraduate and graduate experiences ensured relevance and richness for addressing our research questions. Using Reddit search with the keywords "ADHD" and "college," we identified multiple potential subreddit communities that involved ADHD students and higher education. We selected a publicly accessible subreddit that states its members identify as having ADHD and are affiliated with a higher education institution. The subreddit is in English and appears to mostly include members from the US and Canada. This community was established five years ago in 2020, during the COVID-19 pandemic and distance learning. At the time we collected data for our study (mid-2023), the subreddit had nearly 7,000 subscribers with steady growth since its inception. This trend of steady growth continued through late 2024, when we conducted member checking interviews to validate the continued relevance of our findings. This community allows members to ask questions, share insights related to academics and the challenges they face, and encourages participation only from those with ADHD diagnoses or self-diagnoses. The subreddit maintains rules around participation and content, with the goal of keeping discussions focused, respectful, and relevant to the community's purpose. The community emphasizes citing reliable sources and strictly forbids posts of academic dishonesty, advertising, and off-topic discussions. Researchers seeking to recruit study participants from the community may do so, but they must tag their submissions with the appropriate "Research" flair <sup>3</sup>. As of late 2024, the subreddit was moderated by a small team of volunteer moderators.

#### 3.2 Data Collection

We collected all 670 existing posts and 6,787 corresponding comments using the Reddit API with the PRAW Python and beautiful soup libraries from the time of its inception to mid-20234. The range of posts created per month ranged from 3 to 65, with an average of 21.6 per month.

As in many subreddits, the majority of people posting did so only minimally. The 670 posts represented 317 unique posters, and the 6,787 comments were made by 2,979 unique commenters. We collected the title of each post, its content, the content of the comments, up/down votes, poster username, the time stamp, and URL. The study was deemed exempt by our university's Institutional Review Board. Furthermore, the subreddit studied allows for research uses, and we obtained permission from the moderators of the subreddit. While it is not feasible to obtain informed consent all contributors to a public subreddit, we implemented multiple safeguards to protect participants' privacy. In our report, all usernames have been removed, and all quotes used in this study have been paraphrased from the original texts to protect the identities of the participants. Additionally, while our analysis was conducted on the language as written

<sup>&</sup>lt;sup>3</sup>Post flair is a supplementary tag that users can select when creating a post on a subreddit. It serves two main purposes: first, it allows the subreddit to be sorted by the selected flair, making it easier for users to find posts related to specific topics or categories; second, it provides a quick way to identify the nature or content of the post without having to read through the entire submission.

<sup>&</sup>lt;sup>4</sup>This method was implemented before Reddit made significant changes to their API on June 19, 2023, in response to the use of their data by emerging AI technologies.

by informants, we have de-identified it where possible when including data in our findings section for publication, rearranging words or exchanging similar words to make reidentification of the posts to the public Reddit forum difficult.

Throughout our project we aimed to abide by the Internet Research: Ethical Guidelines 3.0 and other published recommendations for the ethical use of public data, particularly reddit data [31, 32], which does not require consent before using public data but emphasizes ethical considerations of data use and publication. In alignment with these frameworks, the first author returned to the community to share preliminary findings and invite members to review, contribute to, or challenge our interpretations. We also engaged with moderators and community members through member checking interviews (where consent was obtained), to ensure our interpretations align with community experiences.

To align the dataset with our research objectives, we refined it by including only posts that: (1) mentioned information and communication technologies (ICTs) and (2) sought advice on academic concerns, including those related to disability accommodations. Subsequently, we conducted a thorough review of all posts in the corpus and excluded posts that: (1) recruited research participants; (2) announced new subreddits; or (3) mentioned technology without providing sufficient context or explanation of its uses or effects. To ensure the reliability of our inclusion and exclusion criteria, inter-rater agreement was conducted on a randomly selected 28% subset of the full webscraped dataset (184 posts), yielding a 90% agreement rate. After applying these inclusion and exclusion criteria to both posts and their corresponding comments, we obtained the final dataset of 199 posts and 1,481 comments, ensuring a focused and relevant sample for our analysis.

#### 3.3 Data Analysis

The research team employed inductive thematic analysis [15] to identify common themes across our corpus. The first two authors conducted open coding on 30% of the posts (N=59) and their associated comment threads (N=446) to generate initial codes. We identified collaborative support as an overarching concept that pervaded posts and comments. Using collaborative support as an analytic frame, we revisited the data and began developing mid-level themes by grouping the codes into clusters based on their similarities, followed by discussions among all authors. These themes were iteratively refined through a process of collapsing, expanding, and removing codes and categories as needed, with the entire research team revisiting the data throughout. In our findings, we reference quotes using "P#" to indicate the post number and "-C#" to indicate the comment number within that post (e.g., P12-C2 for Post12 Comment 2).

A wide variety of software tools and applications were mentioned throughout our dataset. In most cases, at least one person on the research team was familiar with the tool. In the case of three platforms that came up frequently in our dataset with which we did not have initial familiarity–Focusmate, StudyStream, and Twitch's "Study with Me" live streams—the first author explored each platform, documenting and categorizing their features, including similarities, differences, and unique aspects among them.

To enhance the validity of our thematic analysis and reduce potential reflexivity bias, we conducted member checking interviews in late 2024 with two moderators and two community members. Member checking [59] is a technique in which researchers share data interpretations with members of the studied community to assess the accuracy, resonance, and completeness of their findings. Each participant received the full text of our positionality statement and thematic findings in advance of the interview. Participants also received and signed a written consent form and a study information sheet outlining the interview protocol. We conducted semi-structured interviews via video conferencing, each lasting approximately 35–45 minutes. During the interviews, we asked participants for their general thoughts, how accurate they perceive the findings to be, and what should be added and/or removed and why. Member feedback was used to confirm or contrast with existing themes, expand upon them, and incorporate additional nuances or caveats that had Manuscript submitted to ACM

not emerged during the initial analysis. In our findings, we reference member checking participants using "M#" to indicate the member checking participant (e.g. M1 for member checking participant 1)

#### 3.4 Positionality

One author is an active member of ADHD communities online and advocates for academic support. They have experience seeking information essential for navigating university life with ADHD. Two authors have substantial experience as university professors working with disability services to provide accommodations for their own students but also as part of campus efforts to manage disability awareness, accommodation support, and related concerns. To balance bringing in personal lived experiences with appropriate scholarly distance from the challenges and opportunities raised in our analysis, our team consulted with each other regularly, drawing on our diverse backgrounds, encompassing neurodivergent and neurotypical perspectives from both the US and other countries. When we recognized patterns, issues, or concerns from our own experiences or prior research that were not represented in our data, we interrogated as a group why that might be, while revisiting our analysis for both confirmatory and dis-confirmatory information.

## 4 Findings

Throughout our data, community members seek and share advice for managing a variety of ADHD symptoms and experiences as students in higher education, particularly around executive functioning and academic success, as well as sharing, discussing, and using collaborative, community-driven strategies for addressing both. In this section, we describe three types of collaborative practices among ADHD students: (1) participating in diverse forms of body doubling beyond physical co-presence to create accountability and focus while studying; (2) engaging in active collaborative support with social partners to help moderate emotional responses or manage distractions, which offers personalized support tailored to the individual's specific challenges; and (3) leveraging community-based support as a safety net for remembering deadlines, staying accountable, and fostering a sense of belonging.

# 4.1 Body Doubling Beyond Physical Co-Presence

Our data reveals a variety of strategies for achieving body doubling across physical and digital spaces and occurring in real-time and asynchronously. These practices go beyond physically co-located activity using real-time, virtual co-presence and simulated body doubling experiences from pre-recorded videos.

4.1.1 Physical Body Doubling. With ADHD, initiating tasks like studying and maintaining focus can be an immense challenge, often leading to what one poster (P56) described as a "scramble of thoughts and random interests" that derail productivity. They further elaborated, "When I try to study, I often end up focusing on unimportant things, like making the perfect meme or spending a lot of time researching and editing a long YouTube comment" (P56). A commenter validated this experience, stating, "I totally understand; I'm in the same situation, and it's incredibly frustrating" (P56-C3).

One strategy that appeared in many discussions was body doubling, in which the mere presence of others working in physical proximity to you can provide motivation and accountability. A moderator (M1) emphasized that "body doubling accountability kind of stuff" are frequently posted topics in the subreddit. After sharing their own recent diagnosis and medication for ADHD, one commenter suggested, "My advice is to make friends you can study or work on assignments with. Body doubling can be really effective" (P147-C7). In another thread, a commenter emphasized the importance of developing relationships with others to support body doubling, "I've had to find friends who are

Manuscript submitted to ACM

dedicated to studying and work alongside them" (P77-C1). Similarly, a commenter explained how they received a study skills mentor as an accommodation to build study skills as well as, "...just sit with me so I could get work done that I was avoiding" (P31-C7). As prior work on body doubling suggests [26], the mere physical presence of another person can help with task initiation without requiring the other person to be engaged in the same task. One commenter explained, "One thing that's helped me is starting with someone else around. Having another pair of eyes keeps me focused on studying, even if it's driven by a bit of guilt" (P56-C2). They even admitted to sometimes "pretend[ing] to get started on the task while they're there and then accidentally actually start[ing] the task". This emphasis on physical co-presence was echoed by M2, who described needing their partner to physically follow them to complete routine tasks.

4.1.2 Adapting Body Doubling to Online Environments. For many ADHD students, the shift to online learning during 2019 and 2020 highlighted their reliance on in-person body doubling and the need to find other ways to achieve co-presence. For example, "I didn't realize how crucial it was to my success to have people physically around me to keep me accountable" (P66-C1). ADHD students described their use of various applications that support real-time, virtual body doubling experiences, such as Focusmate, Twitch, and StudyStream. M2 & M3 confirmed this pivot to digital strategies, describing their own use of phone calls, Zoom, and FaceTime sessions to recreate the sense of working alongside others. Yet, each of these platforms has a different collection of features that support virtual body doubling experiences.

Focusmate, Twitch, and StudyStream all use video as a digital proxy for the physical presence of traditional body doubling [93]. However, the degree of perceived accountability varies based on the platform's norms and settings. Focusmate's one-on-one sessions foster a strong sense of dyadic accountability, as users are directly responsible to their study partner, "You have someone right there on your screen who can help you stay focused and accountable while you study" (P152). StudyStream's grid display mimics a study hall or library environment, providing moderate accountability through the visibility of multiple users simultaneously. As another poster noted, "It feels more natural and down-to-earth compared to watching study with me streams" (P88). Twitch, with its emphasis on streamer personalization and background music, creates a more casual, companionable atmosphere, akin to studying alongside a relaxed "study buddy." A similar practice was echoed by M3, who described watching Twitch study streamer videos but almost always in groups of three or four people.

4.1.3 Platform Specific Body Doubling Features. Task management and timers can also support focus and productivity in digital body doubling. For example, StudyStream's Pomodoro<sup>5</sup> timer and task manager appear to help users structure study sessions and stay organized. Similarly, Twitch "Study with Me" streamers use bots to provide reminders and updates, leveraging automation to support study habits and a sense of shared progress. Focusmate requires users to state their goals at the beginning of each session and report on their progress at the end. According to the product website [44], this method draws on the concept of goal-setting theory [62] which uses setting and committing to specific goals to enhance performance. Additionally, Focusmate includes a reporting system through which users can report if their partners are not staying productive. One commenter highlighted the effectiveness of this application in keeping them focused and productive, stating, "I've been using Focusmate online. When I do four sessions a day, I know I've put in at least four hours of focused work, which is quite a bit" (P152-C6).

<sup>&</sup>lt;sup>5</sup>As far as we can tell, the Pomodoro Technique is a time management method developed by Francesco Cirillo in the late 1980s. It uses a kitchen timer to break work into intervals, typically 25 minutes in length, separated by short breaks. Each interval is known as a pomodoro, from the Italian word for tomato, after the tomato-shaped kitchen timer Cirillo used as a university student. [100]

Encouragement and accountability manifest differently across digital platforms. StudyStream's thumbs-up emoji and streak tracking can facilitate social support, mimicking the encouragement a physical study partner might offer. Twitch chat engagement and bot reminders help build a strong sense of community and shared goals during the study session. The streamer sets expectations, like a study group leader. M3 described how the shared experience of Twitch streams helped them feel engaged and emotionally supported while working. Focusmate's timeliness score and mandatory video feed contribute to a more formal accountability structure. The video feed additionally evokes an interesting paradox between video presence and inclusivity in visual shared spaces. Prior work on accessibility and video conferencing advocates for optional video use, thereby creating more inclusive environments for disabled participants and neurodivergent people in particular [20, 91]. For instance, one participant in our data noted, "With my camera turned off, I could stand up whenever necessary, I could show emotions without someone commenting on my facial expressions," (P67). Moreover, M4 added nuance to this tension, noting that camera-based platforms may not be suitable for everyone, particularly those with social anxiety or discomfort being visible while working. They shared that they "can't stand looking at other people or themselves online or in person," and instead preferred ambient sounds to support focus. However, mandatory video feeds might enable a more concrete visual co-presence [36], by which individuals perceive and are perceived by others. P152 demonstrated this tension by first expressing dislike for the expectation of camera use, "The only thing I don't like is that it's expected to have your camera on while using the site," before going on to highlight its value, "If you can deal with that, ...it's really effective for accountability" (P152).

These platforms and their moderators use a variety of technological, policy-based, and behavioral limits to shape the body-doubling experience. StudyStream limits interaction, maintaining a quiet atmosphere that allows for focused work with minimal distractions. Twitch encourages engagement during designated break times, fostering a sense of camaraderie and community that can help combat feelings of isolation, as noted by a commenter who suggested exploring Twitch for those "who might feel lonely while studying and would like a companion" (P21-C1). Focusmate's structured interaction points at the start and end of sessions support meaningful, focused communication between study partners, replicating the check-ins and progress updates that might occur during in-person body doubling sessions.

4.1.4 Asynchronous Body Doubling Through Videos. Beyond applications that offer real-time digitally-mediated body doubling experiences, community members also described using YouTube for simulated body doubling experiences through "Study with Me" videos, which are recorded videos of other students studying. These videos help students maintain concentration, "It's the only method to keep myself in my seat when my focus starts to wander" (P118-C1). The video, often on a second monitor, serves as a continuous visual cue, demonstrating sustained attention and engagement, which the viewer can then emulate. Moreover, these videos often incorporate techniques like the Pomodoro method, alternating between focused work sessions and short breaks. By watching someone else effectively implement this technique, viewers may be more likely to adopt and apply it to their own study routines. These videos may function similarly to video modeling, in which learners develop new behaviors or skills through watching a video demonstration and practicing the modeled behavior [88].

Online and asynchronous co-presence is distinct from other examples of body doubling. However, community members describe similar companionship and accountability benefits of watching Study with Me videos while working. In one conversation thread, multiple people discussed how to recreate the "external pressure" they feel to stay on task when studying with a friend. One poster (P145-C11) replied, "I'm experimenting with different ways to create that pressure artificially, but one thing that has helped me several times is using those "study with me" YouTube videos... it feels like I'm studying with someone or in a library, which helps me get into the zone." Similarly, M3 & M4 affirmed

that ambient, asynchronous streams or background videos helped them feel accompanied and focused, without the discomfort of interacting directly with others.

4.1.5 Emotional Tradeoffs and Inclusivity. While much of our data indicates body doubling is helpful, the two moderators (M1, M4) offered more critical reflections, noting that it did not work for them personally. M4 observed that for some people, the positive effects of body doubling may be driven by negative emotions like guilt, shame, or anxiety. M1 and M4 both expressed concern that strategies rooted in this kind of negative external pressure could reinforce maladaptive coping patterns, especially if relied on too heavily over time. Despite these concerns, both acknowledge that while body doubling may not be effective for everyone, including themselves, it can still be a valuable tool for others. Moreover, M4 emphasized the importance of experimentation and self-awareness, encouraging ADHD college students to try different strategies and to let go of those that are not serving them. They said, "ADHD is a spectrum so you gotta treat it like a spectrum, where there's not a single solution for these things".

While more research is needed to understand the mechanisms driving these behaviors, our data suggest that the benefits of body doubling extend beyond co-located, real-time interaction to include online, distributed, and asynchronous video-mediated experiences. Community members described a range of strategies to create a sense of co-presence and accountability. At the same time, these strategies are not universally effective. For some people, body doubling can introduce emotional discomfort or reinforce unhelpful coping patterns. These findings point to the highly individualized nature of ADHD support strategies and highlight the need for flexible, user-centered approaches that empower individuals to experiment, adapt, and find what works best for them.

## 4.2 Active Collaborative Support

Some collaborative strategies involve more active participation from a social partner(s) who directly intervenes to help moderate their activity. In these cases, the social partner takes on a facilitator role, actively assisting in managing specific ADHD-related challenges, such as through a dedicated accountability partner. For example, some posters describe enlisting family or friends, "Share any upcoming deadlines with her [their mom] and ask her to check in with you regularly to ensure they are completed and submitted on time. Once that's done, it becomes easier" (P98-C6). Having someone consistently follow up and provide reminders is described as "an excellent way to stay on track," with the initial hurdle of awareness being "the hardest part." Another poster endorsed this strategy as a way to "help motivate ourselves to do things we usually don't feel like doing" suggesting, "get a co-worker or friend to hold you accountable for meeting smaller deadlines before the final deadline of a task" (P173-C3). Moreover, this active participation of others could be facilitated through technology, such as collaborative task management applications, "I'm currently trying out Tiimo... but my mom wants to be able to add tasks to help me remember things" (P114-C10). Member checking echoed this strategy, with participants describing similar arrangements, such as partners reminding them to complete their planning tasks or helping manage small but essential organizational tasks. Furthermore, they highlight how this level of direct involvement is sometimes necessary, especially when tasks carry emotional weight or trigger executive dysfunction (M1, M2).

4.2.1 Managing Distractions Through Trusted Partners. Recruiting a trusted friend or family member can help limit persistent distractions while studying. Specifically, many posters described "doom scrolling" tendencies, which involve navigating social media rather than focusing on tasks that needed to be completed. For instance, one poster lamented, "It's just too easy to open Reddit or Twitter instead of studying and scroll endlessly" (P7). People within this community described using application blockers or website blockers designed to restrict access to tempting social media and Manuscript submitted to ACM

media-viewing applications. However, as evidenced in the data, these technological solutions alone are often insufficient, prompting the integration of collaborative strategies involving more direct support from another person. One commenter outlined two complementary approaches, "swapping phones with my roommate while doing homework" and "have a friend set the passcode so it's almost impossible to bypass" the app blocker (P23-C5). The former tactic leverages the impacted working memory associated with ADHD [73], wherein removing the phone from one's immediate presence, by trading it with a roommate, helps mitigate distraction. The latter strategy actively involves a trusted friend in managing access to distracting applications. This collaborative approach recognizes the limitations of relying solely on self-imposed restrictions and instead harnesses human intervention and support to reinforce focus and curb dopamine-seeking tendencies related to excessive scrolling or media consumption.

4.2.2 Emotional Regulation and Email Anxiety. Other types of active collaborative support address emotional regulation difficulties common among ADHD students. Students described seeking active collaborative support from trusted individuals to help moderate emotional and physical responses around checking academic email, particularly in relation to missed deadlines and poor grades. As one participant vividly described, "I'm afraid to check my email, as silly as it may sound. My heart races and my stomach drops" (P57). A similar description was shared by M3, who called opening emails "terrifying" and noted how isolating it felt to struggle with a task that seems easy for neurotypical people. Posters suggest this anxiety stems from the fear of receiving critical feedback, noticing missed deadlines, or being reminded of 'shortcomings' related to ADHD symptoms, "I'm always worried that I'll find an angry or exasperated email from one of my professors asking why I haven't submitted things" (P96). Another student suggested that their email anxiety could be rooted in deeper concerns, such as "Grades from a specific course?" (P57-C3), to which the original poster responded, "Yeah, I suppose it is about grades. I fell behind on some things, and I guess that's the main issue" (P57). This phenomenon is widely shared within the community, with many validating the experience through comments like "I can tell you that you're not alone in dealing with this kind of issue" (P57-C1) and "Thanks for sharing, I totally get what you're saying! It's like my anxiety won't let me physically open them and switches into 'panic self-protect' mode" (P96-C13). The latter commenter articulated the internal conflict of weighing "a growing amount of anxiety building up just from not checking" against "a sudden burst of intense anxiety from checking" (P96-C13).

To manage this anxiety, ADHD college students may seek active collaborative support from trusted friends or family members, who review emails, handle urgent communications, and provide emotional reassurance during the email response process. For example, a commenter "actually got [their] dad to open my email today and just help me face it" (P96-C13), asking their father to first review concerning emails, communicate which required immediate attention, and then remain present as they responded. In a separate post about email anxiety, a commenter validated this strategy, "one of the only things that actually work for me is having someone else push me to do it" (P57-C8). Despite initial reluctance to ask for help due to fear of judgment, "Normally, I hesitate to ask for help like this because I worry that it will reveal how bad I am at simple tasks," this collaborative strategy proved effective, enabling them to send "5 out of 6 scary emails" (P96-C13). M1 and M3 described a similar reliance on active collaboration from trusted others to reduce the emotional weight surrounding email tasks. M3 shared that even sending emails could feel overwhelming, describing it as, "the worst thing in the world to my brain". While M1 and M4 acknowledged having used this strategy in moments of stress or anxiety, they again caution against using this strategy long-term, calling it a "transitional" solution (M1) rather than a sustainable one and warning that relying on others could reinforce people-pleasing behaviors (M4) that could be maladaptive.

4.2.3 Short-Term Mentorship and Peer Support. These examples highlight the critical role that active collaboration plays in accessibility for ADHD college students. While body doubling provides ambient co-presence, the examples discussed here demonstrate the importance of directly engaged, task-specific interventions like opening emails, managing deadlines, or navigating academic stressors that technology alone may not fully support. Drawing on their experiences of meeting with community members one-on-one and observing similar support exchanges through the subreddit, M1 and M4 specifically encouraged us to include one-on-one peer mentoring in this theme. They emphasized the value of informal peer mentoring, such as short-term support via Discord or academic guidance via Zoom from community members as offering emotional and executive functioning support. Overall, these findings illustrate that for many students with ADHD, direct human intervention is not just helpful but essential, especially when navigating complex emotional, relational, or academic contexts.

# 4.3 Community-Based Reminders and Accountability

4.3.1 Peers as Memory Safety Nets. Participating in supportive communities, online or in person, can help manage executive functioning challenges and combat the effects of impaired memory on academic performance. Navigating the academic landscape, ADHD students often struggle to remember crucial deadlines due to their memory and organizational difficulties. This struggle is evident in the strategies they adopt to manage these challenges. For example, one poster shared,

"Start putting everything on your calendar, reminders for due dates, appointments, and commitments. Doing this has really helped me with a dozen different things I've struggled with for years turning assignments in on time, starting them early enough, remembering to pay bills like my phone and electricity, not forgetting important events my wife mentioned weeks ago, and even keeping track of when free trials expire." (P55-C2)

While using calendars to plan and set reminders is a widely-used strategy by ADHD students in this community, some described calendaring as insufficient. Instead, these students turned to their peers, family members, and online communities for additional support. These students described the importance of leveraging social connections as a "safety net" for staying informed about important dates and requirements. One poster, for instance, grieved the loss of this supportive network during online classes and COVID-19 restrictions, noting, "Because of online university and Covid, I no longer have the safety net of talking to people who might mention deadlines, which helped me remember them" (P86). M2 echoed this strategy of community as a memory safety net, by describing how group chats formed in earlier courses continued providing support even after the classes ended. In these ongoing conversations, classmates would casually mention upcoming deadlines or check in about past tasks, simple interactions that often served as helpful reminders. Although the contact was informal, they noted that these follow-ups helped them remember key assignments and gave them an opportunity to reflect and share how things went.

4.3.2 Online Communities for Distributed Accountability. Similarly, discussions in our corpus also referenced platforms like Discord as spaces for connecting with others at the same university to help track deadlines. In a post seeking tips for preparing for a new semester, a commenter suggested creating or joining a "discord server for class/cohort" (P147-C1). They attributed their academic success to the accountability and support provided by this Discord community, stating, "Being part of a Discord server for my class or group, where everyone helps each other and answers questions, has been really helpful. It keeps me on track because someone always reminds us when assignments are due, and I can get last-minute help when I need it" (P147-C1). In this case, using Discord kept them informed about classroom activities, Manuscript submitted to ACM

reminded them about impending deadlines, and enabled access to last-minute assistance with assignments. M1 shared a similar experience, when describing how, after joining a course Discord, classmates would casually mention upcoming deadlines and later follow up by asking how it went. M4 noted that as a moderator they observe this same practice happening via Zoom. This collaborative strategy fosters a sense of shared responsibility and community-based access, helping individuals with ADHD navigate the challenges of their disability and academic demands.

The above examples are less about the specific platform and more about the type of interaction and support these spaces enable. Whether on Discord or in person, passive community-based support benefits ADHD people who are reminded of upcoming deadlines by overhearing in person or seeing online a passing discussion between about an upcoming assignment deadline. This casual, ambient exposure to important information helps to compensate for the impacted memory and organizational challenges associated with ADHD, providing a crucial safety net for when primary strategies, such as calendaring and to-do lists, fail.

4.3.3 Community Support as Belonging and Validation. The community-based support described through discussions in this subreddit transcends academic deliverables, providing space for connecting with other college students who share similar experiences, struggles, and triumphs. Feelings of inclusion are accessibility issues, as community and inclusion are closely correlated to both academic success and mental health [69, 94, 97]. For example, one poster described creating a website "to serve as a space where me and other grad students can connect, share resources, info, research, and our experiences" (P63). Another member (P90) combined their passions for ADHD support and a popular game by creating a custom Discord server for people with ADHD who want to play but also need understanding partners who can accommodate their ADHD. M3 and M4 reinforced the importance of these kinds of spaces, by emphasizing that without a community of people who understand their lived experiences (as someone with ADHD) it's easy to feel lost, especially in a world that was not designed for neurodivergent people. These initiatives demonstrate the proactive efforts of community members to establish spaces that support their specific needs and foster a sense of belonging within academia. Moreover, ADHD adults often struggle to find understanding and relatability within their immediate social circles. As one poster shared, "I have friends and a boyfriend in real life, but they find it difficult to fully understand what's going on in my mind and some of my challenges" (P68). To address this, they sought to create a "niche group" specifically for ADHD graduate students, recognizing the value of connecting with others who can directly relate to their experiences. The responses to this post were overwhelmingly positive, with one commenter exclaiming, "I fit right into that group; grad school is where I discovered I have both ADHD and ASD" (P68-C1), and another expressing their desire to join the community "to normalize my experience" as a doctoral student with ADHD (P68-C5). M3 and M4 reinforced the value of this kind of validation. M3 reflected that seeing others working hard, facing the same challenges, and still showing up made them feel less alone, more capable, and more motivated to keep going, or as M4 aptly put it, "validation is medicine". These reactions highlight the importance of community-based support in validating and normalizing the experiences of individuals with ADHD, ultimately contributing to a greater sense of belonging and acceptance. Across these examples, community-based reminders and accountability emerged as essential supports for ADHD college students. Group chats, passive exposure to deadlines, and shared online community spaces functioned as distributed systems helping with motivation, memory, and task management. Member checking expands this theme, with M2 identifying this subreddit itself, as a uniquely safe, non-judgmental, and collaborative environment. They described it as offering both practical tools and emotional validation from peers who "get it." M2 and M3 noted that the group's diversity and mutual support helped them feel a sense of belonging, even after previously feeling like a "square peg in a round hole." Overall, these findings suggest that community support for ADHD students fosters not

only academic accountability and distributed cognitive support, but also connection, shared identity, and deepened sense of belonging.

#### 5 Discussion

Informed by disability studies [41, 65], there has been a turn within accessibility scholarship towards the collaborative nature of accessibility and how disabled people, particularly disabled adults, are active agents in creating their own accommodations and securing access [10, 14, 19, 98]. Yet, with few exceptions [20, 26], research involving the ADHD community has focused on individual accommodations [13, 50, 72], or when others are involved, the projects are frequently centered on youth rather than adults [17, 21, 84, 102]. Our analysis reveals how the collaborative practices of ADHD college students support their academic and personal success. These strategies include live video-mediated body doubling through platforms like Focusmate and StudyStream, simulated forms of co-presence such as watching "Study with Me" videos, and more active collaboration with other people to help manage emotional responses and distractions. Furthermore, we highlight the importance of community-based cognitive support, accountability, and a sense of belonging. In this section, we discuss how theories of co-presence can help understand the mechanisms underlying these practices and consider the implications for designing collaborative, community-led accommodations and support systems for ADHD students in higher education.

#### 5.1 Understanding Co-Presence as Access

Co-presence, both virtual and physical, appears to have the potential to enhance focus, motivation, and academic performance. Eagle *et al.* [26] describe a specific type of co-presence, body doubling, across space (from physically co-located to remote), time (from occurring in real-time to asynchronous interactions), and awareness (from active coordination of accountability to ambient or no awareness of the other). We saw in our own data the perceived effectiveness of body doubling. However, the mechanisms by which such an approach might be beneficial and, therefore, how we might design future technologies and interventions, are not yet well understood. Here, we draw on decades of theoretical and empirical work on co-presence to provide considerations on how these collaborative practices might operate and begin to hypothesize why they are effective for ADHD students.

Goffman's concept of co-presence, which emphasizes the sense of being together in an environment where individuals are aware of each other's presence and are "accessible, available, and subject to one another" [36], is particularly relevant to the practice of body doubling. Our analysis suggests that ADHD college students perceive body doubling as creating accountability and improving their motivation to study or perform academically. Community members suggest that the mere presence of others, even if not actively interacting, helps them stay focused and on task. The shared spaces they create through co-presence provide visibility of each other's behaviors and prompt the performance of productive behaviors (e.g., reading, studying). This kind of visibility and accountability mirrors early ideas of media spaces, which create social spaces [23]. The community that develops in shared spaces shapes norms and perceptions of behaviors. Given that ADHD college students report spending time in spaces with other ADHD students, who are most similar to them, but also with others with ADHD who are not college students and with other college students without ADHD, each of these communities, social spaces, and media spaces should be considered in depth. In other contexts (e.g., neurodivergent workers at home [20]) and for other groups (e.g., autistic college students [104]), interpretation of behaviors by others who are variously similar to and different from the neurodivergent person impact their ability to be effective in that space. The Reddit community we studied itself has its own emergent norms and culture shaping Manuscript submitted to ACM

how posters and commenters reference their solutions, creating a deeper understanding of how personal, social, and institutional factors intersect with technology design, especially around assistive and collaborative technologies.

Understanding co-presence as a condition enabling instant two-way human interactions [103] provides further theoretical insight into the distributed and digitally-mediated body doubling practices described in this subreddit. Applications like Focusmate, StudyStream, and Twitch "Study with Me" streams facilitate real-time interactions among their users, allowing them to communicate, share progress, and provide support to one another. Our data suggest that these instant interactions, even if limited, contribute to the sense of being together and foster accountability and motivation among community members. These platforms vary widely in the ways they enable real-time, online body doubling experiences and therefore are likely to have their own norms.

Our data also illustrate how both the technological features and the social norms that emerge on the platforms create conditions under which certain behaviors become more visible. Once seen by the community, these behaviors may be scrutinized, for instance, by requiring cameras to remain on and allowing others to report people who are off-task. Understanding the co-presence norms of ADHD students through other methods (e.g., interviews, observational studies) is particularly important given that their practices may also not align with the institutional norms or culture of higher education [22, 85]. The origins of these norms and rules are unclear; they may be created by individuals with ADHD for their own benefit or imposed by neurotypicals. Nevertheless, future work should examine how these features are sanctioning certain ways of being together that on the surface seem to be helpful to ADHD students but in the long run may further stigmatize already disadvantaged students.

In contrast to these applications that support real-time interactions, watching a recording of someone else studying while they are working with no direct interaction with the 'body double' can still provide support. Viewing co-presence as the subjective experience of feeling together with someone in the same space [81] provides some theoretical grounding for understanding simulated forms of body doubling. For example, it is possible that practices such as watching "Study with Me" videos on YouTube create a sense of virtual companionship and shared experience, even though the experience is not occurring in real time. However, further empirical studies are needed to understand this phenomenon and how it is similar to and different from more interactive body doubling. One hypothesis is that body doubling has become a learned practice for some ADHD students such that even watching recorded versions of the experience can trigger a form of co-presence and follow-on benefits. This view resonates with the sense of connection people can experience during live streaming and how watching live streams can help people build routines [57]. Another hypothesis is that the structure of the interaction and being able to follow along (whether there is another human in the video or not) is the driving factor. What was important to students in our data was attending to the patterns of working and cycles of behavior, such as knowing when to focus on studying and when to take breaks. Still, other work indicates people attend to and emulate the posture of the body double [26], so it is likely a combination of factors that creates favorable conditions. There are further questions still regarding whether ADHD students want or need to 'learn' to work in these ways (e.g., such as suggested by video modeling literature [88]) and instead may simply benefit from experiences that help create a context (real or imagined) for focused studying activities and prompt embodied performance of patterns of work and relaxation.

# 5.2 Towards Community-Led Collaborative Access in Higher Education

Our analysis contributes to the ongoing discussion of how access is created through both our social practices and material environment [10, 20, 22, 43, 98], focusing here on the array of digitally-mediated collaborative practices that enable access among ADHD students in post-secondary institutions [65]. In addressing the unique challenges faced by

Manuscript submitted to ACM

ADHD students in academic settings, three key design considerations emerged for creating effective digital support systems. These considerations focus on balancing accountability and surveillance, providing opportunities for active and direct peer support, and integration with existing learning communities. Each of these approaches uses technology and social aspects to create supportive environments that can help ADHD students navigate the complexities of college life. By carefully designing these systems using the collaborative strategies and practices we uncover, we can create more inclusive and effective learning environments that not only support ADHD students but also enhance the educational experience for all learners. The following sections explore these design considerations, offering insights into how technology can address the specific needs of ADHD students while promoting broader principles of accessibility and community support in education.

5.2.1 Providing Appropriate Levels of Accountability in Virtual Body Doubling Environments. Real-time virtual body doubling facilitates remote co-presence through video-mediated body doubling sessions. Focusmate exemplifies this concept by matching users with on-demand body doubling partners allowing users to work alongside others who offer accountability. Unlike other video-mediated body doubling platforms, Focusmate is unique in that it requires participants to keep their cameras on and includes features through which users can report if their partners are not staying productive, however, productivity is defined for that particular interaction. These platforms offer a range of accountability approaches, from soft methods like sharing with a matched partner to stricter ones based on formal policies and reporting practices.

Designers of collaborative support systems must consider how much surveillance, accountability, and structure to provide. While certain features may promote task engagement, they may do so at the expense of feelings of independence or the ability to maintain privacy, anonymity, and so on. Some features, such as shared goal-setting, periodic check-ins, or visual cues for staying on task, may not require the kind of shared visual spaces or punitive restrictions that some platforms require. However, for some users, the trade-offs of a more aggressive management environment may be worth what they give up. Designers may also consider providing flexibility or customization, allowing end users to adjust the level of enforcement, structure, and engagement to suit their specific needs, just as one might for an in-person body doubling partner with whom one might negotiate and ask for more or less pushing. While our data do not directly examine how the type of relationship with a body double influences its effectiveness, it offers meaningful insights. Support from close friends may foster emotional safety and mutual understanding, whereas body doubling with an authority figure could be either supportive or anxiety-inducing, depending on the relationship dynamics.

5.2.2 Providing Opportunities for Active and Direct Peer Support. In some cases, social partners directly intervene to help manage ADHD-related challenges. This approach goes beyond simple co-presence, with the partner taking on a facilitator role to actively assist the individual with specific tasks or situations. Human supporters, however, can be less consistent or reliable than technologies, as anyone who has ever asked a friend to wake them up or remember an important deadline knows. Similarly, the interpersonal and social challenges many ADHD people experience can make it difficult to find and maintain relationships with partners who are willing and able to provide consistent, direct support [76]. Similarly, these findings echo broader trends among disabled college students, who often self-create accommodations and build informal peer support systems in response to gaps in institutional accessibility [46?]. Disabled students collectively share strategies, co-develop solutions, and support each other's access needs through peer-driven efforts, especially in online spaces and informal learning contexts [64, 83]. Future technologies might build on the inherent interest of community members to support one another through peer matching systems, reward systems for consistent participation, and community guidelines that emphasize the importance of interdependence [10]. Manuscript submitted to ACM

5.2.3 Integration with Existing Learning Communities. Turning to others for reminders and accountability helps manage executive functioning challenges and foster a sense of belonging, but such approaches likely work best when community members share knowledge about the academic requirements and other shared references. In other words, this kind of support is likely best provided by people in the same classes or going through similar academic journeys at the same institution. For example, Discord groups use off-the-shelf technologies to bring together classmates to track assignments and deadlines collectively. While many such interactions are encouraged, promoted, or even actively developed by the faculty teaching the courses, many are student-led, and almost none are fully integrated into other aspects of coursework. Tools for accountability among ADHD students would likely be easier to adopt and manage were they more interoperable and integrated with existing academic and productivity tools. Such tools might include institutional platforms, like Learning Management Systems, or end-user tools like calendars and to-do lists. At the same time, it is important to acknowledge the shifting power dynamics that emerge when institutions organize or manage co-working and accountability sessions. While such initiatives could support students, they also introduce an additional level of surveillance, especially if participation data is tracked or monitored by the institution. This well-intentioned assistive technology may become counterproductive if it compromises student autonomy or feels imposed. Balancing these surveillance and power dynamics is critical to ensure that this accommodation is effective, supportive, respects the autonomy of, and is actually grounded in, the needs of the student.

#### 5.3 Limitations and Future Work

There are key limitations to note in this paper. Reddit users are not representative of the broader population of college students with ADHD. The platform tends to skew younger and male, which may limit the demographic diversity of perspectives, and those who post as opposed to just read are an even smaller subset [1]. Additionally, the subreddit we analyzed was primarily U.S.-based, restricting the applicability of our findings to international or more culturally diverse contexts. The anonymity of Reddit introduces further uncertainty, as users' identities cannot be verified, and individuals may post under multiple accounts. These factors should be considered when interpreting the generalizability and broader relevance of our results.

This research sets the stage for a wide variety of future research projects. For example, a comparative study could examine productivity, focus, and on-task behavior among ADHD students in conditions with and without body doubling. Additionally, investigating the long-term effects of different body doubling methods on productivity and performance, as well as users' perceptions of their efficacy, could offer a more comprehensive understanding of this technique. Another area of future work could compare physically co-located body doubling and video-mediated body doubling in terms of both short-term efficacy and long-term effects. Researchers could also explore the relative impact of human-guided study videos versus other media (e.g., audio, non-human videos) to determine which type of digitally mediated body doubling is most effective and why. Finally, future studies could investigate how digital platforms can be designed to simulate the benefits of physical co-presence, such as shared context and nonverbal communication, potentially enhancing the effectiveness of remote body doubling techniques.

#### 6 Conclusion

This paper presents our analysis of technology-related posts from a Reddit community focused on the university experience of ADHD people. We provide insights into the collaborative strategies and socio-technical practices employed by ADHD college students to support their academic success. Our research contributes to the limited existing empirical literature on technology used by this community, with a particular emphasis on emergent collaborative practices and Manuscript submitted to ACM

the risks and opportunities they engender. We highlight how body doubling supports ADHD college students and relates to existing theories of co-presence. We offer design considerations for future collaborative technologies in light of the adaptive practices observed in our data. Given the complex and often invisible nature of ADHD, understanding the collective knowledge, strategies, and adaptations developed by this population will support the design and development of collaborative learning and productivity tools in the future. Additionally, our further understanding of how collaborative technologies, particularly those that support co-presence, work in this space for this community broadens our conceptual understanding of co-presence as an assistive technology.

# Acknowledgments

We are deeply grateful to Jessica E. Philips, Nika Shilobod, Kaela Henry, and Johanna Smith for their contributions and insights during the member checking process. Your participation shaped this research and enriched the broader ADHD community. We also thank Dr. Jazette Johnson and Emani Hicks for their consulting and insight during the analysis. This work would not have been possible without your guidance and support. This work was supported in part by the Kleist endowment and the Department of Education through GAANN.

#### References

- [1] [n. d.]. Social Media and News Fact Sheet pewresearch.org. https://www.pewresearch.org/journalism/fact-sheet/social-media-and-news-fact-sheet/. [Accessed 16-07-2025].
- [2] Elie Abdelnour, Madeline O Jansen, and Jessica A Gold. 2022. ADHD diagnostic trends: increased recognition or overdiagnosis? *Missouri medicine* 119, 5 (2022), 467.
- [3] Claire Advokat, Sean M Lane, and Chunqiao Luo. 2011. College students with and without ADHD: Comparison of self-report of medication usage, study habits, and academic achievement. *Journal of attention disorders* 15, 8 (2011), 656–666.
- [4] Abdulkarim Alhossein. 2014. Perspectives of King Saud University faculty members toward accommodations for students with Attention Deficit-Hyperactivity Disorder (ADHD). Kent State University.
- [5] María Álvarez-Godos, Camino Ferreira, and María-José Vieira. 2023. A Systematic Review of Actions Aimed at University Students with ADHD. Frontiers in Psychology 14 (July 2023), 1216692. https://doi.org/10.3389/fpsyg.2023.1216692
- [6] Hanne Voldborg Andersen and Rune Hagel Skaarup Jensen. 2018. Assistive learning technologies for learners with ADHD and ASD: A review 2006-2016. Læring Og Medier (lom) 11, 19 (2018).
- [7] Georgia Andreou and Ariadni Argatzopoulou. 2024. A systematic review on the use of technology to enhance the academic achievements of children with attention deficit hyperactivity disorder in language learning. Research in Developmental Disabilities 145 (2024), 104666.
- [8] Jane V Appleton and Lindy King. 1997. Constructivism: A naturalistic methodology for nursing inquiry. Advances in nursing science 20, 2 (1997), 13–22.
- [9] CATHERINE L. Bagwell, BROOKE S. G. Molina, WILLIAM E. Pelham, and BETSY Hoza. 2001. Attention-Deficit Hyperactivity Disorder and Problems in Peer Relations: Predictions From Childhood to Adolescence. Journal of the American Academy of Child & Adolescent Psychiatry 40, 11 (Nov. 2001), 1285–1292. https://doi.org/10.1097/00004583-200111000-00008
- [10] Cynthia L Bennett, Erin Brady, and Stacy M Branham. 2018. Interdependence as a frame for assistive technology research and design. In *Proceedings* of the 20th international acm sigaccess conference on computers and accessibility. 161–173.
- [11] Joseph Biederman and Stephen V. Faraone. 2006. The Effects of Attention-Deficit/Hyperactivity Disorder on Employment and Household Income. Medscape General Medicine 8, 3 (July 2006), 12.
- [12] Stacey L Blase, Adrianne N Gilbert, Arthur D Anastopoulos, E Jane Costello, Rick H Hoyle, H Scott Swartzwelder, and David L Rabiner. 2009.
  Self-reported ADHD and adjustment in college: Cross-sectional and longitudinal findings. Journal of Attention Disorders 13, 3 (2009), 297–309.
- [13] George Botsas and George Grouios. 2017. Computer Assisted Instruction Of Students With Adhd And Academic Performance: A Brief Review Of Studies Conducted Between 1993 And 2016, And Comments. (2017). https://doi.org/10.5281/ZENODO.1058974
- [14] Stacy M. Branham and Shaun K. Kane. 2015. The Invisible Work of Accessibility: How Blind Employees Manage Accessibility in Mixed-Ability Workplaces. In Proceedings of the 17th International ACM SIGACCESS Conference on Computers & Accessibility (Lisbon, Portugal) (ASSETS '15). Association for Computing Machinery, New York, NY, USA, 163–171. https://doi.org/10.1145/2700648.2809864
- [15] Virginia Braun and Victoria Clarke. 2006. Using thematic analysis in psychology. Qualitative Research in Psychology 3, 2 (2006), 77–101. https://doi.org/10.1191/1478088706qp063oa
- [16] Joelle I Broffman. 2016. Academic accommodations for college students with psychiatric disabilities: Recommendations for disability service staff, faculty, and clinicians. (2016).

Manuscript submitted to ACM

- [17] Franceli L Cibrian, Kimberley D Lakes, Arya Tavakoulnia, Kayla Guzman, Sabrina Schuck, and Gillian R Hayes. 2020. Supporting self-regulation of children with ADHD using wearables: tensions and design challenges. In Proceedings of the 2020 CHI conference on human factors in computing systems. 1–13.
- [18] Neil S. Coulson, Heather Buchanan, and Aimee Aubeeluck. 2007. Social Support in Cyberspace: A Content Analysis of Communication within a Huntington's Disease Online Support Group. Patient Education and Counseling 68, 2 (Oct. 2007), 173–178. https://doi.org/10.1016/j.pec.2007.06.002
- [19] Maitraye Das, Darren Gergle, and Anne Marie Piper. 2019. "It doesn't win you friends" Understanding Accessibility in Collaborative Writing for People with Vision Impairments. Proceedings of the ACM on Human-Computer Interaction 3, CSCW (2019), 1–26.
- [20] Maitraye Das, John Tang, Kathryn E. Ringland, and Anne Marie Piper. 2021. Towards Accessible Remote Work: Understanding Work-from-Home Practices of Neurodivergent Professionals. Proc. ACM Hum.-Comput. Interact. 5, CSCW1 (April 2021), 183:1–183:30. https://doi.org/10.1145/3449282
- [21] Max Doan, Franceli L Cibrian, Agnes Jang, Nihar Khare, Sean Chang, Aiyuan Li, Sabrina Schuck, Kimberley D Lakes, and Gillian R Hayes. 2020. CoolCraig: A smart watch/phone application supporting co-regulation of children with ADHD. In Extended Abstracts of the 2020 CHI Conference on Human Factors in Computing Systems. 1–7.
- [22] Jay T Dolmage. 2017. Academic ableism: Disability and higher education. University of Michigan Press.
- [23] Paul Dourish, Annette Adler, Victoria Bellotti, and Austin Henderson. 1996. Your Place or Mine? Learning from Long-Term Use of Audio-Video Communication. Computer Supported Cooperative Work (CSCW) 5, 1 (March 1996), 33–62. https://doi.org/10.1007/BF00141935
- [24] George J DuPaul, Ibrahim Dahlstrom-Hakki, Matthew J Gormley, Qiong Fu, Trevor D Pinho, and Manju Banerjee. 2017. College students with ADHD and LD: Effects of support services on academic performance. Learning Disabilities Research & Practice 32, 4 (2017), 246–256.
- [25] Erika Dyck and Ginny Russell. 2020. Challenging psychiatric classification: Healthy autistic diversity and the neurodiversity movement. Healthy minds in the twentieth century: In and beyond the asylum (2020), 167–187.
- [26] Tessa Eagle, Leya Breanna Baltaxe-Admony, and Kathryn E. Ringland. 2023. Proposing Body Doubling as a Continuum of Space/Time and Mutuality: An Investigation with Neurodivergent Participants. In Proceedings of the 25th International ACM SIGACCESS Conference on Computers and Accessibility (ASSETS '23). Association for Computing Machinery, New York, NY, USA, 1–4. https://doi.org/10.1145/3597638.3614486
- [27] Tessa Eagle and Kathryn E. Ringland. 2023. "You Can't Possibly Have ADHD": Exploring Validation and Tensions around Diagnosis within Unbounded ADHD Social Media Communities. In Proceedings of the 25th International ACM SIGACCESS Conference on Computers and Accessibility (ASSETS '23). Association for Computing Machinery, New York, NY, USA, 1–17. https://doi.org/10.1145/3597638.3608400
- [28] Laura Eccleston, James Williams, Sue Knowles, and Laura Soulsby. 2019. Adolescent Experiences of Living with a Diagnosis of ADHD: A Systematic Review and Thematic Synthesis. Emotional and Behavioural Difficulties 24, 2 (April 2019), 119–135. https://doi.org/10.1080/13632752.2019.1582762
- [29] José María Fernández-Batanero, Marta Montenegro-Rueda, and José Fernández-Cerero. 2022. Access and participation of students with disabilities: The challenge for higher education. International Journal of Environmental Research and Public Health 19, 19 (2022), 11918.
- [30] Catherine S Fichten, Alice Havel, Mary Jorgensen, Susie Wileman, Maegan Harvison, Rosie Arcuri, and Olivia Ruffolo. 2022. What Apps Do Postsecondary Students with Attention Deficit Hyperactivity Disorder Actually Find Helpful for Doing Schoolwork? An Empirical Study. Journal of Education and Learning 11, 5 (2022), 44–54.
- [31] Casey Fiesler, Michael Zimmer, Nicholas Proferes, Sarah Gilbert, and Naiyan Jones. 2024. Remember the human: A systematic review of ethical considerations in reddit research. Proceedings of the ACM on Human-Computer Interaction 8, GROUP (2024), 1–33.
- [32] Aline Shakti Franzke, Anja Bechmann, Charles Melvin Ess, and Michael Zimmer. 2020. Internet research: Ethical guidelines 3.0. (2020).
- [33] Callie Ginapp. 2023. Young Adults With Adhd And Their Involvement In Online Communities: A Qualitative Study. Yale Medicine Thesis Digital Library (Jan. 2023).
- [34] Ylva Ginsberg, Javier Quintero, Ernie Anand, Marta Casillas, and Himanshu P Upadhyaya. 2014. Underdiagnosis of attention-deficit/hyperactivity disorder in adult patients: a review of the literature. The primary care companion for CNS disorders 16, 3 (2014), 23591.
- [35] Vana Gkora. 2024. Advancing ADHD education: autonomy, technology, and inclusive strategies. GSC Advanced Research and Reviews 18, 3 (2024), 101–111
- [36] Erving Goffman. 2008. Behavior in public places. Simon and Schuster.
- [37] Guendalina Graffigna and Albino Claudio Bosio. 2006. The influence of setting on findings produced in qualitative health research: A comparison between face-to-face and online discussion groups about HIV/AIDS. *International Journal of qualitative methods* 5, 3 (2006), 55–76.
- [38] Egon G Guba and Yvonna S Lincoln. 1989. Fourth generation evaluation. Sage.
- [39] Josh Guberman. 2023. Actually Autistic Twitter as a Site for Epistemic Resistance and Crip Futurity. 30, 3 (2023). https://doi.org/10.1145/3569891
- [40] Allyson G Harrison and Irene Armstrong. 2022. Accommodation decision-making for postsecondary students with ADHD: Treating the able as disabled. *Psychological Injury and law* 15, 4 (2022), 367–384.
- [41] Amy Hasinoff and Rena Bivens. 2021. Feature analysis: A method for analyzing the role of ideology in app design. *Journal of Digital Social Research* 3, 2 (2021), 89–113.
- [42] Eric Heiligenstein, Greta Guenther, Andrea Levy, Felix Savino, and Jan Fulwiler. 1999. Psychological and academic functioning in college students with attention deficit hyperactivity disorder. Journal of American college health 47, 4 (1999), 181–185.
- [43] ROB IMRIE and MARION KUMAR. 1998. Focusing on Disability and Access in the Built Environment. Disability amp; Society 13, 3 (June 1998), 357–374. https://doi.org/10.1080/09687599826687
- [44] Focusmate Inc. 2024. Focusmate. (2024). https://www.focusmate.com/
- [45] Mizuko Ito and Daisuke Okabe. 2005. Intimate visual co-presence. In 2005 Ubiquitous Computing Conference. Citeseer.

[46] Dhruv Jain, Venkatesh Potluri, and Ather Sharif. 2020. Navigating graduate school with a disability. In Proceedings of the 22nd International ACM SIGACCESS Conference on Computers and Accessibility. 1–11.

- [47] JohnsonJazette, BlackRebecca W, and HayesGillian R. 2020. Roles in the Discussion. Proceedings of the ACM on Human-Computer Interaction (Oct. 2020). https://doi.org/10.1145/3415198
- [48] David Jones, Shiva Ghasemi, Denis Gračanin, and Mohamed Azab. 2023. Privacy, Safety, and Security in Extended Reality: User Experience Challenges for Neurodiverse Users. In HCI for Cybersecurity, Privacy and Trust, Abbas Moallem (Ed.). Springer Nature Switzerland, Cham, 511–528. https://doi.org/10.1007/978-3-031-35822-7 33
- [49] Steven T. Kane, John H. Walker, and George R. Schmidt. 2011. Assessing College-Level Learning Difficulties and "At Riskness" for Learning Disabilities and ADHD: Development and Validation of the Learning Difficulties Assessment. Journal of Learning Disabilities 44, 6 (Nov. 2011), 533–542. https://doi.org/10.1177/0022219410392045
- [50] Anjali Kanitkar, Theresa Ochoa, and Megan Hadel. 2012. Kurzweil: A computer-supported reading tool for students with learning and attention challenges in higher education. In EdMedia+ Innovate Learning. Association for the Advancement of Computing in Education (AACE), 648–653.
- [51] Robert E. Kraut, Darren Gergle, and Susan R. Fussell. 2002. The Use of Visual Information in Shared Visual Spaces: Informing the Development of Virtual Co-Presence. In Proceedings of the 2002 ACM Conference on Computer Supported Cooperative Work (CSCW '02). Association for Computing Machinery, New York, NY, USA, 31–40. https://doi.org/10.1145/587078.587084
- [52] George D Kuh, Jillian L Kinzie, Jennifer A Buckley, Brian K Bridges, and John C Hayek. 2006. What matters to student success: A review of the literature. Vol. 8. National Postsecondary Education Cooperative Washington, DC.
- [53] Melissa Kumaresan, Lindsay McCardle, Sambhavi Chandrashekar, Ece Karakus, and Colin Furness. 2022. Learning with ADHD: a review of technologies and strategies. J Technol Pers Disabil Stlago (2022).
- [54] Aparajita B Kuriyan, William E Pelham, Brooke SG Molina, Daniel A Waschbusch, Elizabeth M Gnagy, Margaret H Sibley, Dara E Babinski, Christine Walther, JeeWon Cheong, Jihnhee Yu, et al. 2013. Young adult educational and vocational outcomes of children diagnosed with ADHD. Journal of abnormal child psychology 41 (2013), 27–41.
- [55] Elizabeth K Lefler, Gina M Sacchetti, and Dawn I Del Carlo. 2016. ADHD in college: A qualitative analysis. ADHD Attention Deficit and Hyperactivity Disorders 8 (2016), 79–93.
- [56] Lawrence J. Lewandowski, Benjamin J. Lovett, Robin S. Codding, and Michael Gordon. 2008. Symptoms of ADHD and Academic Concerns in College Students With and Without ADHD Diagnoses. Journal of Attention Disorders 12, 2 (Sept. 2008), 156–161. https://doi.org/10.1177/1087054707310882
- [57] Jingjin Li, Jiajing Guo, and Gilly Leshed. 2024. Meditating in Live Stream: An Autoethnographic and Interview Study to Investigate Motivations, Interactions and Challenges. Proc. ACM Hum.-Comput. Interact. 8, CSCW1, Article 140 (apr 2024), 33 pages. https://doi.org/10.1145/3637417
- [58] Lin Li, Xinru Tang, and Anne Marie Piper. 2023. Understanding Extrafamilial Intergenerational Communication: A Case Analysis of an Age-Integrated Online Community. Proceedings of the ACM on Human-Computer Interaction 7, CSCW2 (2023), 1–25.
- [59] Yvonna S Lincoln. 1985. Naturalistic inquiry. Vol. 75. sage.
- [60] Anderson Linda. 2024. The ADHD Body Double: A Unique Tool For Getting Things Done. https://add.org/the-body-double/.
- [61] Bernardo Oppermann Lisboa, Arthur Caye, Angelo Masson Hernandes, Antonio Geraldo da Silva, Carlos Roberto M Rieder, Edmund Sonuga-Barke, Iane Kestelman, Jason M Nelson, Marisa Irene Siqueira Castanho, Rochele Paz Fonseca, et al. 2023. When should a university student be allowed academic accommodations for attention-deficit/hyperactivity disorder? A position statement for a unified procedure for use in Brazil. Brazilian Journal of Psychiatry (2023).
- [62] Edwin A. Locke and Gary P. Latham. 2006. New Directions in Goal-Setting Theory. Current Directions in Psychological Science 15, 5 (Oct. 2006), 265–268. https://doi.org/10.1111/j.1467-8721.2006.00449.x
- [63] Benjamin J Lovett. 2021. Educational accommodations for students with disabilities: Two equity-related concerns. In Frontiers in Education, Vol. 6. Frontiers Media SA, 795266.
- [64] Kelly Avery Mack, Natasha A Sidik, Aashaka Desai, Emma J McDonnell, Kunal Mehta, Christina Zhang, and Jennifer Mankoff. 2023. Maintaining the accessibility ecosystem: A multi-stakeholder analysis of accessibility in higher education. In Proceedings of the 25th International ACM SIGACCESS Conference on Computers and Accessibility. 1–6.
- [65] Jennifer Mankoff, Gillian R Hayes, and Devva Kasnitz. 2010. Disability studies as a source of critical inquiry for the field of assistive technology. In Proceedings of the 12th international ACM SIGACCESS conference on Computers and accessibility. 3–10.
- [66] JB Meaux, A Green, and L Broussard. 2009. ADHD in the college student: A block in the road. Journal of psychiatric and mental health nursing 16, 3 (2009), 248–256.
- [67] Nathalie Meyer and Andreas H. Jucker. 2022. Co-Presence and beyond: Spatial Configurations of Communication in Virtual Environments. 579–608 pages. https://doi.org/10.1515/9783110693713-018
- [68] Anna K. Mueller, Anselm B. M. Fuermaier, Janneke Koerts, and Lara Tucha. 2012. Stigma in Attention Deficit Hyperactivity Disorder. ADHD Attention Deficit and Hyperactivity Disorders 4, 3 (Sept. 2012), 101–114. https://doi.org/10.1007/s12402-012-0085-3
- [69] Mary C Murphy, Maithreyi Gopalan, Evelyn R Carter, Katherine TU Emerson, Bette L Bottoms, and Gregory M Walton. 2020. A customized belonging intervention improves retention of socially disadvantaged students at a broad-access university. Science advances 6, 29 (2020), eaba4677.
- [70] Pesantez Nathaly. 2022. Study: One in Six College Freshmen Has ADHD Most with Comorbidities. https://www.additudemag.com/statistics-about-college-students-adhd-rates-news/.

- [71] Kevin Nugent and Wallace Smart. 2014. Attention-deficit/hyperactivity disorder in postsecondary students. *Neuropsychiatric disease and treatment* (2014), 1781–1791.
- [72] Doeun Park, Myounglee Choo, Minseo Cho, Jinwoo Kim, and Yee-Jin Shin. 2024. Collaborative School Mental Health System: Leveraging a Conversational Agent for Enhancing Children's Executive Function. In Proceedings of the CHI Conference on Human Factors in Computing Systems (CHI '24). Association for Computing Machinery, New York, NY, USA, 1–17. https://doi.org/10.1145/3613904.3642593
- [73] Michelle A Pievsky and Robert E McGrath. 2017. The Neurocognitive Profile of Attention-Deficit/Hyperactivity Disorder: A Review of Meta-Analyses. Archives of Clinical Neuropsychology 33, 2 (July 2017), 143–157. https://doi.org/10.1093/arclin/acx055
- [74] Frances Prevatt, Abigail Reaser, Briley Proctor, and Yaacov Petscher. 2007. The learning/study strategies of college students with ADHD. The ADHD report 15, 6 (2007), 6–9.
- [75] David L. Rabiner, Arthur D. Anastopoulos, Jane Costello, Rick H. Hoyle, and H. Scott Swartzwelder. 2008. Adjustment to College in Students with ADHD. Journal of Attention Disorders 11, 6 (May 2008), 689–699. https://doi.org/10.1177/1087054707305106
- [76] Tracy L Richards, Lee A Rosen, and Cori Ann Ramirez. 1999. Psychological functioning differences among college students with confirmed ADHD, ADHD by self-report only, and without ADHD. Journal of College Student Development (1999).
- [77] Kathryn E. Ringland, Christine T. Wolf, Heather Faucett, Lynn Dombrowski, and Gillian R. Hayes. 2016. "Will I always be not social?": Re-Conceptualizing Sociality in the Context of a Minecraft Community for Autism. In Proceedings of the 2016 CHI Conference on Human Factors in Computing Systems (San Jose, California, USA) (CHI '16). Association for Computing Machinery, New York, NY, USA, 1256–1269. https://doi.org/10.1145/2858036.2858038
- [78] Tracey Ann Rush. 2011. "She's too smart to have ADHD": Faculty willingness to accommodate students with ADHD at elite postsecondary institutions. Ph. D. Dissertation. University of Pennsylvania.
- [79] Nader Salari, Hooman Ghasemi, Nasrin Abdoli, Adibeh Rahmani, Mohammad Hossain Shiri, Amir Hossein Hashemian, Hakimeh Akbari, and Masoud Mohammadi. 2023. The global prevalence of ADHD in children and adolescents: a systematic review and meta-analysis. *Italian journal of pediatrics* 49, 1 (2023), 48.
- [80] Samuel J. C. Schrevel, Christine Dedding, Jeroen A. van Aken, and Jacqueline E. W. Broerse. 2016. 'Do I Need to Become Someone Else?' A Qualitative Exploratory Study into the Experiences and Needs of Adults with ADHD. Health Expectations 19, 1 (2016), 39–48. https://doi.org/10.1111/hex.12328
- [81] Ralph Schroeder. 2002. Copresence and interaction in virtual environments: An overview of the range of issues. In *Presence 2002: Fifth international workshop*. Citeseer, 274–295.
- [82] Barbara Shaw-Zirt, Leelawatte Popali-Lehane, William Chaplin, and Andrea Bergman. 2005. Adjustment, Social Skills, and Self-Esteem in College Students With Symptoms of ADHD. Journal of Attention Disorders 8, 3 (Feb. 2005), 109–120. https://doi.org/10.1177/1087054705277775
- [83] Kristen Shinohara, Mick McQuaid, and Nayeri Jacobo. 2021. The burden of survival: How doctoral students in computing bridge the chasm of inaccessibility. In Proceedings of the 2021 CHI Conference on Human Factors in Computing Systems. 1–13.
- [84] Lucas M. Silva, Franceli L. Cibrian, Elissa Monteiro, Arpita Bhattacharya, Jesus A. Beltran, Clarisse Bonang, Daniel A. Epstein, Sabrina E. B. Schuck, Kimberley D. Lakes, and Gillian R. Hayes. 2023. Unpacking the Lived Experiences of Smartwatch Mediated Self and Co-Regulation with ADHD Children. In Proceedings of the 2023 CHI Conference on Human Factors in Computing Systems (CHI '23). Association for Computing Machinery, New York, NY, USA, 1–19. https://doi.org/10.1145/3544548.3581316
- [85] Stephanie L Simon-Dack, P Dennis Rodriguez, and Geoff D Marcum. 2016. Study habits, motives, and strategies of college students with symptoms of ADHD. Journal of Attention Disorders 20, 9 (2016), 775–781.
- [86] SkarbezRichard, Jr Frederick P. Brooks, and WhittonMary C. 2017. A Survey of Presence and Related Concepts. ACM Computing Surveys (CSUR) (Nov. 2017). https://doi.org/10.1145/3134301
- [87] Mercédesz Judit Soós, Neil S. Coulson, and E. Bethan Davies. 2022. Exploring Social Support in an Online Support Community for Tourette Syndrome and Tic Disorders: Analysis of Postings. Journal of Medical Internet Research 24, 10 (Oct. 2022), e34403. https://doi.org/10.2196/34403
- [88] Monika Steinborn and Terry J Knapp. 1982. Teaching an autistic child pedestrian skills. *Journal of Behavior Therapy and Experimental Psychiatry* 13, 4 (1982), 347–351.
- [89] Niran Subramaniam, Joe Nandhakumar, and Joao Baptista. 2013. Exploring social network interactions in enterprise systems: The role of virtual co-presence. *Information Systems Journal* 23 (11 2013), 475–499. https://doi.org/10.1111/isj.12019
- [90] Joanna Maria Szulc, Frances-Louise McGregor, and Emine Cakir. 2023. Neurodiversity and remote work in times of crisis: lessons for HR. Personnel Review 52, 6 (2023), 1677–1692.
- $[91] \ \ John\ Tang.\ 2021.\ \ Understanding\ the\ Telework\ Experience\ of\ People\ with\ Disabilities.\ 5,\ CSCW1\ (2021).\ \ https://doi.org/10.1145/3449104$
- [92] Mark Thomas, Anthony Rostain, Regina Corso, Thomas Babcock, and Manisha Madhoo. 2015. ADHD in the college setting: current perceptions and future vision. *Journal of attention disorders* 19, 8 (2015), 643–654.
- [93] Norman Triplett. 1898. The dynamogenic factors in pacemaking and competition. The American journal of psychology 9, 4 (1898), 507-533.
- [94] Annemarie Vaccaro, Meada Daly-Cano, and Barbara M Newman. 2015. A sense of belonging among college students with disabilities: An emergent theoretical model. Journal of College Student Development 56, 7 (2015), 670–686.
- [95] Ruvanee P. Vilhauer. 2009. Perceived Benefits of Online Support Groups for Women with Metastatic Breast Cancer. Women & Health 49, 5 (Oct. 2009), 381–404. https://doi.org/10.1080/03630240903238719
- [96] Beverly A Wallace, Adam Winsler, and Pat NeSmith. 1999. Factors Associated with Success for College Students with ADHD: Are Standard Accommodations Helping?. (1999).

[97] Gregory M Walton and Geoffrey L Cohen. 2011. A brief social-belonging intervention improves academic and health outcomes of minority students. Science 331, 6023 (2011), 1447–1451.

- [98] Emily Q Wang and Anne Marie Piper. 2018. Accessibility in action: Co-located collaboration among deaf and hearing professionals. *Proceedings of the ACM on Human-Computer Interaction* 2, CSCW (2018), 1–25.
- [99] Xiaoran Wang, Jiangheng Liu, Shuwei Jia, Chunmei Hou, Runsheng Jiao, Yan Yan, Tengchuang Ma, Ying Zhang, Yanyan Liu, Haixia Wen, et al. 2024. Hybrid teaching after COVID-19: advantages, challenges and optimization strategies. *BMC Medical Education* 24, 1 (2024), 753.
- [100] Wikipedia contributors. 2024. Pomodoro Technique Wikipedia, The Free Encyclopedia. https://en.wikipedia.org/w/index.php?title=Pomodoro\_ Technique&oldid=1232016892 [Online; accessed 3-July-2024].
- [101] Shaomei Wu, Jingjin Li, and Gilly Leshed. 2024. Finding My Voice over Zoom: An Autoethnography of Videoconferencing Experience for a Person Who Stutters. In Proceedings of the CHI Conference on Human Factors in Computing Systems (CHI '24). Association for Computing Machinery, New York, NY, USA, 1–16. https://doi.org/10.1145/3613904.3642746
- [102] Ruth Yaacoby-Vakrat, Margalit Pade, and Tami Bar-Shalita. 2023. Exploring Co-Regulation-Related Factors in the Mothers of ADHD Children—Proof of Concept Study. Children 10, 8 (2023), 1286.
- [103] Shanyang Zhao. 2003. Toward a Taxonomy of Copresence. Presence: Teleoper. Virtual Environ. 12, 5 (Oct. 2003), 445–455. https://doi.org/10.1162/105474603322761261
- [104] Annuska Zolyomi, Anne Spencer Ross, Arpita Bhattacharya, Lauren Milne, and Sean A. Munson. 2018. Values, Identity, and Social Translucence: Neurodiverse Student Teams in Higher Education. In Proceedings of the 2018 CHI Conference on Human Factors in Computing Systems (CHI '18). ACM. https://doi.org/10.1145/3173574.3174073

Received 20 February 2007; revised 12 March 2009; accepted 5 June 2009