Rethinking Interdependence in HCI: A Systematic Literature Review for Understanding its Use in Accessibility Studies

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ABSTRACT

Interdependence has long been a core concept in Disability Studies and activism, offering a critical response to dominant ideals of independence. While Bennett et al.'s work introduced interdependence into accessibility research in HCI by linking it with research and design practices, the extent to which HCI has meaningfully engaged with the theoretical and political roots of the concept remains unclear. In this literature review, we systematically analyze 70 HCI accessibility papers that engage with the concept of interdependence. Guided by the PRISMA framework, we investigate how interdependence is conceptualized and applied in HCI, identifying strengths and shortcomings of current conceptualizations. Our findings reveal that interdependence is used across a range of use cases that broaden its scope, but that integration remains partial and fragmented, often disconnected from its origins in Disability Studies and activism. We conclude by calling for a more meaningful integration of interdependence into HCI accessibility research.

CCS CONCEPTS

• **Human-centered computing** → **Accessibility theory, concepts and paradigms**.

KEYWORDS

Interdependence, Disability Studies, disability activism, literature review

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1 INTRODUCTION

Historically, disability has often been represented through narratives of **inferiority and dependence** [55]. In the mid-20th century, there was a shift from a model of medical dependence to one of **social independence** with *The Independent Living Movement* reframing the concept of independence. It emphasizes that independence does not mean doing everything alone, but having the right to control one's life and receive the necessary support [101]. In recent years, within Disability Studies, the ideal of independence has been critically examined as an ableist construct - one that is deeply embedded in Enlightenment thinking and colonial power structures [72]. Scholars argue that this ideal has been upheld as a universal standard for defining personhood, maturity, and societal worth, and challenge the Western ideals of individualism by **recognizing interdependence as a key part of independence** [33]. In the disability justice framework, Mingus defines interdependence as a liberatory practice that rejects ableist ideals of independence and centers **mutual aid, collective care, and solidarity** [91]. Even though interdependence is a well-established concept [1] that has been used by Disability Studies scholars (e.g., [7, 42, 112]) and disability activists (e.g., [91]) for several years, the concept was first introduced to accessibility studies in Human-Computer Interaction (HCI) community by Bennett et al. [14] in 2018. In this context, the discussion primarily focused on how to use the concept to inform assistive technology research and design, building on the theoretical foundations from other disciplines such as Disability Studies [14]. Therefore, Bennett et al.'s work served as a bridge between Disability Studies and HCI research concerned with accessible technologies for disabled people. Building on this, accessibility studies in HCI have recently made a shift toward **interdependence-oriented technology and interaction design,** moving away from a sole focus on independence [133]. Here, studies highlight how **assistive technologies can support collaboration and shared experiences** (e.g., [15, 41, 117, 132, 135]).

In their extensive literature review on ability-based design, Xiao et al. [14] argue that since the publication of Bennet et al.'s fundamental paper the concept of interdependence has been widely applied to investigate ways to support inclusive interactions between people with different abilities [133]. Xiao et al. offer a valuable entry point for considering interdependence in HCI, particularly through its focus on ability-diverse interactions (ibid.). However, their work does not yet engage in a critical appraisal of how the concept of interdependence is adapted within HCI, nor does it reflect in depth on the strengths and shortcomings of its use in our field. Therefore, the use, application and conceptualization of interdependence within accessibility studies in HCI remains unclear, as does the extent to which HCI studies have contributed to its development. Here, our work seeks to advance these conversations by systematically investigating how accessibility research in HCI **conceptualizes and applies** the concept of interdependence, identifying both the

[1]We use *concept* instead of *term* to emphasize the broader meanings and practical applications of interdependence in HCI.

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strengths and the shortcomings of existing approaches. In doing so, we not only analyze current HCI perspectives, but also aim to **bridge them with contemporary debates in Disability Studies and disability activism**, and explore how these discussions might lead to more meaningful integration of the concept in HCI.

Building on Mankoff et al.'s paper, which calls for stronger engagement with Disability Studies in accessibility research within HCI [89], we argue that it is important to reflect on how our research community has approached this challenge, and whether there are aspects that require further discussion. Considering the rapid growth of studies that use the concept of interdependence in accessibility research within HCI [133], it is both timely and valuable to critically evaluate how existing studies conceptualize and apply the concept, identify the strengths and shortcomings of these applications, and finally develop strategies for HCI researchers to reflect on how they integrate the notion of interdependence into their work. As similar conceptual work appears across HCI subfields (e.g., Tyack and Mekler's review of Self-Determination Theory in HCI games research [124]), this effort can guide future accessibility research in HCI that seeks to engage with the concept of interdependence, ensuring that it is meaningfully aligned with Disability Studies and activism, and that it contributes to the further development of the concept rather than merely applying it. Therefore, in this literature review, we ask the following research questions:

- RQ1: In which ways does the accessibility community in HCI conceptualize and apply the concept of interdependence?
- RQ2: What are the strengths and shortcomings of how interdependence is currently conceptualized and applied in HCI?

With the aim of answering the research questions, we reviewed **70 accessibility papers in HCI** that engage with the concept of interdependence. Our selection and screening methodology was guided by the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA, [98]) and we employed a multi-stage analytical methodology. Through our review, we analyze how interdependence is conceptualized and applied across the papers in our corpus. Our results show that accessibility research in HCI has effectively leveraged the concept to demonstrate the value of an interdependence perspective in technology design and research, highlighting its practical applications in diverse real-world cases and the contextual nature of interdependent interactions. At the same time, shortcomings remain: Many papers reference interdependence without clearly defining it or engaging with its conceptual origins, resulting in partial and fragmented integration, often disconnected from its origins in Disability Studies and activism, and often framing it in contrast to independence rather than exploring the fluidity of these perspectives. In our discussion, we return to our research questions, offer answers to them, and reflect on opportunities for responding to Mankoff et al.'s [89] call to integrate Disability Studies more effectively in accessibility research in HCI. Using the concept of interdependence as an example, we aim to expand the ongoing discussions around the question of how we can achieve continuous and meaningful engagement with Disability Studies and activism as an HCI and accessibility community (e.g., [65, 89]). Our research makes **three key contributions to our field**: 1) We provide a systematic analysis of how HCI research has conceptualized and applied the concept of interdependence, beginning with Bennett et al.'s foundational introduction of the concept [14], 2) we identify the strengths and shortcomings of current approaches and offer implications for a more meaningful integration of interdependence within HCI, and 3) building on broader discussions of how Disability Studies can be more effectively integrated into accessibility research in HCI, we provide a refined framework with guiding questions for meaningfully integrating interdependence in accessibility research in HCI.

2 BACKGROUND

In this subsection, we start with a brief history of the concept of independence and then continue with exploring the move towards interdependence, finally providing the contemporary perspectives on interdependence within Disability Studies and disability activism.

2.1 A Brief History of Independence

To better grasp the concept of interdependence, we must first examine how independence and dependence are approached, both in society and in academia. Traditional social stereotypes portray the "able-bodied" and "disabled" as unequal and opposing groups, **associating independence with the able-bodied and dependence with the disabled** [68]. Later, medical advancements reinforced a model where independence was linked to "curing" or "fixing" impairments, stating that disabled people could move toward independence with rehabilitation [131]. From the mid-20th century onward, the *Independent Living Movement* reframed independence as **not doing everything alone, but having the right to control one's life with necessary support,"** [101]. Guided by the social model of disability, disabled individuals began advocating for independence and control over their daily lives [13]. Recently, with the assistive technology (AT) boom, advances in AT have promised to enhance the disabled individuals' participation in society [136]. Ensuring independence has been framed as the major and final goal of any accommodation, assistive technology, or rehabilitation [108, 110]. However, Disability Studies scholars argue that the definition of independence is not one on which different stakeholders have reached consensus [105]. As Reindal discusses, professionals tend to define independence in terms of self-care activities, whereas disabled people define it as the ability to be in control of and make decisions about one's life (ibid.). Oliver further explains that the notion of independence must be expanded from physical achievements to **sociopsychological decision-making** [96].

2.1.1 Independence in Accessibility Studies in HCI. In Human-Computer Interaction (HCI) research, the use of independence in assistive technology research has evolved over time. Traditionally, independence was strongly linked with self-sufficiency and many early AT research aimed to minimize reliance on human caregivers by enhancing users' ability to perform daily tasks without assistance [97]. Independence is also linked to usability and control, where HCI researchers emphasize user-centered design to ensure that assistive technologies provide greater control and customization to users, **ensuring that users can navigate their environment independently** [137]. Recent shifts in HCI studies frame independence not merely as individual ability but also as accessibility in

digital and physical spaces. This evolution marks a move from individualized assistive solutions to Universal Design principles in HCI [1]. Guldenpfennig et al. [57] and Dorrington et al. [40] showed that AT supports autonomy by enabling environmental control, while others have proposed frameworks that more directly emphasize user agency [26]. Currently, independence is discussed along with agency and choice, in which HCI research highlights that independence is not just about doing tasks alone, but about having the freedom to choose how and when to engage with assistance [80, 115].

2.2 Challenging the Dominant Narrative: Moving Towards Interdependence

Scholars in Social Sciences, specifically in Ethics and Disability Studies have long challenged the notion of independence, arguing that it is an ableist construct rooted in Enlightenment, colonial, and masculinist ideologies [72]. While questioning the dichotomy between dependence and independence, Fraser and Gordon highlight a semantic shift from viewing dependency as a normal aspect of life in preindustrial times to framing it as a deviant and stigmatized condition in the industrial era [46]. From a communitarianist perspective, thinkers like MacIntyre argue that humans are inherently dependent beings who **develop autonomy through relationships and communities** [84]. This challenges Western ideals of individualism by recognizing interdependence as a key part of independence [33]. In his fundamental book titled "Elements of the Philosophy of Right" [63], Hegel highlights that dependence and interdependence do not negate freedom but rather provide the conditions for **"meaningful choice"**. Further, feminist philosophers also underscore **"relational autonomy"**, showing how independence is shaped through relationships [94].

In a similar way, the concept of interdependence is a key idea when talking about disability, and it emphasizes the interconnectedness of individuals and the ways in which society relies on mutual support [30]. Bostad and Hanisch discuss freedom and disability rights, arguing that the experiences of disabled people may challenge philosophers on how they conceptualize freedom not only as independence and interdependence but also as dependence [21]. Therefore, by reframing freedom as something that can only be sustained when interacting individuals have **"fairly comparable" powers,** interdependence may be recognized as a constitutive property of freedom [21]. However, within the disability movement, it is also criticized because disabled individuals fear that it may obscure the **crucial distinction between the interdependence experienced by non-disabled people and the imposed dependence faced by disabled people** [77].

2.3 Contemporary Discussions on Interdependence within Critical Disability Studies and Disability Activism

On the one hand, recent discussions in Disability Studies suggest that it is important to confront independence, one of the key concepts of our time [32]. Researchers question whether this emphasis on independence might inadvertently reinforce ableist assumptions about normative abilities [7] and explored whether this reflect the genuine desires of disabled individuals or is it instead a product of the widespread assumption that engaging with the world without support is inherently preferable [8]. Here, Shakespeare highlights the possible risk of idealizing independence to the extent that it ignores the needs of disabled people in their daily living [112]. Therefore, he suggests reconceptualization of care and dependency, and highlights the recognition of **human interdependency** (ibid.). In a similar direction, disability justice perspective also embrace the concept of interdependence: "We meet each others' needs as we build toward liberation, knowing that state solutions inevitably extend into further control over lives" [16]. Mingus approaches interdependence as a political and liberatory framework, centering care and mutual aid over able-bodied ideals of independence [91]. Further, Hamraie situates it within Critical Access Studies, showing how built environments shape relational dependencies [60, 61]. White et al. from Rehabilitation Research, frame interdependence as a practical tool for inclusive participation through reciprocal social relationships [128].

On the other hand, Disability Studies scholars highlight that it is also important to approach the concept critically. While the interdependence approach may seem appealing at first, it ultimately reflects a deeper reluctance to address the more challenging political, economic, and moral issues involved in securing long-term support [45]. First, discussions of interdependence carry the risk of downplaying or overlooking the **structural inequalities** that make care relationships challenging (ibid). Especially when translated into everyday practice, interdependence is often imagined as a harmonious, nurturing, and clean-cut reciprocal relationship. Yet empirical accounts of care collectives reveal that lived interdependence is far more "messy," unruly, and asymmetrical [95]. Disability activist and scholar Nishida foregrounds this desire to reclaim and illuminate "messy dependency," emphasizing how real-life care relations often involve uneven emotional and material labor, and complex power differentials ([95], page 126). Mingus further notes that without acknowledging and addressing these **power imbalances,** care relationships can reinforce **systemic inequalities** [91]. Similarly, The Care Collective emphasizes the importance of care and interdependency but also highlights that without addressing structural inequalities, care initiatives may inadvertently perpetuate existing disparities [31]. Second, scholars such as Kittay challenge dominant theories of justice, arguing that their association of personal dignity with independence overlooks the moral and social value of dependency and care [77]. Here, she highlights that the discourse on interdependence, while insightful, can sometimes obscure the ethical and political significance of dependency itself. She calls for placing dependency at the center of theories of justice, contending that justice must begin from the realities of human dependency rather than from ideals of symmetrical interdependence [78].

2.3.1 Interdependence in Accessibility Studies in HCI. Recent literature review on accessibility research in HCI by Mack et al. [87] reveals that especially after the fundamental paper of Mankoff et al. [89] that called for accessibility researchers to adopt Disability Studies learnings, the integration of Critical Disability Studies perspectives in HCI has increased. With a similar goal, Bennet et al. first introduced the concept of interdependence, aiming at redefining the complex relationship between disabled people, technologies

and environment [14]. In Bennet et al.'s framing, "independence and interdependence are not dichotomous or mutually exclusive" ([14], page 3.). Accordingly, the researchers here argue that accessibility studies in HCI need to move beyond the mere goal of achieving independence and instead acknowledge interdependence as an integral part of disabled ways of living (ibid). This paper is highly cited and widely referenced in HCI, especially in debates on the social and collaborative dimensions of AT use, and on how such use is shaped by environmental factors and the socio-technical infrastructure of specific contexts (e.g., accessibility or situational conditions, see Section 4). Since then, interdependence has also been positioned in HCI as a guiding value of assistive technology [14, 87].

Furthermore, a recent literature review by Xiao et al. shows how the term is especially used in HCI accessibility studies that focus on ability-diverse interactions [133]. Here, Xiao et al. offer a valuable starting point for examining interdependence in HCI, particularly through their exploration of how the concept manifests in ability-diverse interactions [133]. However, their work does not yet engage in a critical appraisal of how interdependence is conceptualized and adapted within HCI, nor does it reflect in depth on the implications of its strengths and shortcomings. Therefore, building on the work of Bennet et al. [14], it remains unclear how further studies conceptualize and apply the concept of interdependence in HCI. Additionally, there is a lack of clarity on whether and how contemporary discussions on the interdependence in Disability Studies and disability activism are represented in HCI, as well as how HCI research contributes to its ongoing development. Therefore, this literature review seeks to explore how interdependence is conceptualized and applied within accessibility studies in HCI, and aims to bridge the gap between evolving contemporary discussions of interdependence in Disability Studies, disability activism, and HCI.

3 METHOD

Our selection and screening methodology was guided by the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) [98], and below we describe our corpus construction, analysis and corpus description.

3.1 Corpus Construction

In accordance with the PRISMA reporting guidelines [98], we outline the key stages involved in constructing the corpus (see Figure 1) for an overview of the central steps.

3.1.1 Identification. Records were sourced from the ACM Digital Library Guide to Computing Literature [2]. This database was selected based on prior accessibility-focused literature reviews in HCI (e.g., [87, 120]), as it includes a wide range of venues pertinent to the field. Our search query targeted abstracts, titles, author keywords, and full-text content. The search keywords were **interdep* AND and disab* OR access* OR assistive technolog***, also in line with previous accessibility-focused literature reviews in HCI [87, 120, 133]. Our search query brought together two parts using an AND operator to ensure both aspects were included. The search was carried out on January 23th 2025 on the ACM Digital Library Guide to Computing Literature, and yielded an initial 894 papers, including 72 duplicates.

3.1.2 Screening and Eligibility. Two authors discussed and agreed upon the defining characteristics of papers for inclusion in the final corpus before starting the screening. Based on that, we came up with our inclusion and exclusion criteria as follows:

We included papers that,

(1) Make a contribution to our understanding of disability and technology (IC1)
(2) Use or AND/OR engage with the concept of interdependence by addressing the concept in a relevant way, e.g., in the design or implementation of technology, in the design or discussion of evaluations, or in the overall interpretation and discussion of research outcomes (IC2)
(3) Explicitly include disabled people in their target group (IC3)

We excluded papers that,

(1) Do not focus on disabled people (e.g., papers that focuses on aging, without a specific focus on disability) and/or do not use interdependence in the context of disability (e.g., interdependent systems) (EC1)
(2) Only make superficial reference to interdependence, e.g., briefly touching upon the concept in their background section, but neither conceptualize, apply, or otherwise contribute to the concept (EC2)
(3) Are neither a full paper, journal article, short paper (including experience reports), nor extended abstract (e.g., workshop proposals, papers that were poster presentations) (EC3)
(4) Are not written in English (EC4)

First, the first author applied the exclusion criteria EC1, EC3, and EC4 to the initial corpus, which resulted in a set of 104 papers. For example, studies that focus on interdependence in the context of experiences of older adults were excluded (e.g., [35]). Next, EC2 was applied to these remaining items (n=104), leading to the exclusion of 32 papers. These papers were removed because, although they mentioned interdependence (mostly in the background), they did so only superficially and did not engage with the concept in a substantial way throughout the paper (e.g., [28, 29]). During this stage, five papers were marked as *to be discussed* as it was unclear to the first author whether or not these items truly addressed interdependence in the context relevant to the study. For these five ambiguous items, the first and second author both read the full texts and discussed their potential inclusion. Through this joint assessment, it was decided that two of the five should be excluded, as they ultimately lacked a clear engagement with the concept of interdependence. The remaining three were retained. At the final stage of screening, based on the cumulative application of all criteria and author discussions, a decision for inclusion was made for **70 items,** (see Supplementary Material for the full corpus).

3.2 Data Analysis

To investigate our research questions, we employed a multi-stage analytical methodology, as used previously in accessibility focused literature reviews in HCI [120, 133]. Beginning with our curated collection of 70 papers, the lead author developed an initial codebook: 1) corpus description (publication years and venues, communities

[2] https://libraries.acm.org/digital-library/acm-guide-to-computing-literature

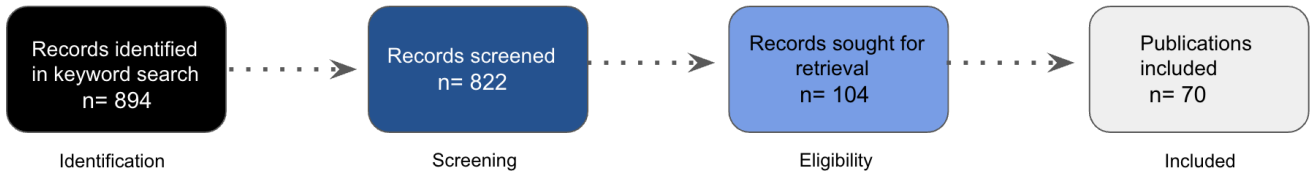

Figure 1: Depicting the core of the PRISMA [98] record selection process.

of focus and contributions, use-cases and technology types, (see Subsection 3.2) that guided by relevant categories from existing literature reviews in HCI accessibility research [87, 120, 133] or developed by the authors. Here, the first author proposed an initial set of categories, which were, in selected cases, collaboratively reviewed with the second author to enhance the clarity and consistency of the coding scheme [120]. 2) Rest of the categories in the codebook (theoretical references to interdependence, definition, use and framing, of interdependence, relevant concepts and theories, contributions to interdependence, (see Section 4) guided by the first research question of our study, *In which ways does the accessibility community in HCI conceptualize and apply the concept of interdependence?* establishing a systematic framework for analysis, (see Supplementary Material for the full coding scheme). To enhance the reliability of the coding process, an iterative and collaborative approach was adopted during data analysis. The initial set of codes was developed based on repeated readings of the selected papers, followed by discussions among the authors to refine the coding framework. Any discrepancies were resolved through discussion, ensuring conceptual clarity and consistency. Reliability was strengthened through cross-checking and ongoing reflection on the coding decisions throughout the synthesis process. Finally, the lead author performed a third comprehensive review of all papers to guarantee coding consistency. When categorizing the types of disabilities, we follow existing literature reviews in the accessibility community in HCI [87]. We identified use cases and technology types inspired by existing research [120, 133], and inductively added new categories as needed from our data (e.g., autoethnography).

3.3 Template Analysis

We adopted a Template Analysis approach [27] that combines deductive and inductive coding strategies, and already was used effectively in prior literature reviews on accessibility and disability in HCI (e.g., [120]). We began by identifying a set of preliminary coding themes informed by foundational texts in Disability Studies and HCI on interdependence (e.g., [14, 91]), as well as our own disciplinary positioning and familiarity with the field. In the initial phase, the first author applied this early template to a sample of the corpus (approximately 10%), iteratively refining and restructuring it based on emerging patterns in the data. Once the initial coding template is established, it was applied across the full corpus, with further refinements remaining possible throughout the process. This method is described as a hybrid of deductive and inductive analysis, and is distinguished from thematic analysis [22] by its structural flexibility, the incorporation of predefined themes, and the central role of a coding template that evolves in response to the data ([27], Chapter 24).

In applying this technique to RQ1 and RQ2, we began by identifying a priori themes informed by the foundational work on interdependence mentioned above. During the application of a priori themes, for example, *relation between independence and interdependence* [14], was further developed into more specific codes, such as *interdependence and independence mutually exclusive, interdependence and independence not mutually exclusive.* There also were themes that were developed inductively, for example, *contributions to interdependence* as *applications of* or *expansions upon interdependence.* The evolving coding structure was reviewed and discussed regularly between both authors to ensure conceptual clarity and coherence. As the full corpus was analyzed, additional revisions were made, and changes to the coding template were re-applied to relevant entries.

3.3.1 Positionality Statement. Although the subjectivity of qualitative researchers can deepen the research process, it equally requires a sustained commitment to critically reflecting on one's positionality [58]. In this study, we acknowledge that our backgrounds and personal experiences with disability may influence both our data collection and analysis, and we actively reflect on these dynamics throughout the process. We are a mixed-ability team with different ethnic, cultural (non-Western and Western), professional and academic backgrounds (Computer Science and Psychology) as well as diverse experiences with disability (the first author identifies as being physically disabled and the second author identifies as neurodivergent). Although we have varying experiences with disability, we generally recognize our own privilege in terms of being able to access accommodations, effectively using assistive technologies and having the flexibility to make decisions around being independent and interdependent with the technologies we use. We share a justice-oriented approach to disability and accessibility, and maintain strong connections with diverse disabled communities in different personal and professional contexts.

3.4 Corpus Description

Our corpus (n=70) consisted of 66 full papers, three experience reports and one extended abstract. Below, we outline publication years and venues, communities of focus, as well as use-cases and technology types.

3.4.1 Publication Years and Venues. An analysis of the publication years (see Figure 2) reveals a notable upward trend in research activity on *interdependence* over the past several years. While earlier contributions are relatively sparse, with only a few articles published between 2018 and 2019, the volume of publications increases from 2020 onward. This is expected since the interdependence framework for assistive technology design was introduced in HCI by Bennet in 2018 [14], as it is also illustrated previously [133]. This growth becomes particularly pronounced in 2021 and accelerates further in subsequent years.

An examination of publication venues within the corpus reveals a focus on core conferences in HCI. *ASSETS* and *CHI* stand out as the most prominent venues, accounting for 24 and 21 papers respectively, showing a similar trend to previous accessibility-focused HCI literature reviews [120, 133]. Journals like *The Proceedings of the ACM on Human Computer Interaction* also contribute a notable share, with seven publications, indicating a relevant outlet. Overall, the distribution highlights the centrality of a few core venues while also demonstrating a degree of venue-related breadth (see Figure 3 for all venues).

3.4.2 Communities of Focus and Contributions. Similar to previous literature reviews [87, 120, 133], papers in our corpus strongly focused on people who are blind or have low vision (n=28), as shown in Figure 4. This is followed by a *general disability* category, which refers to studies that do not specify which disability group they focus on and refer to all disabilities (e.g., [99, 106] *disabled people, or people with disabilities n=16*). Here, some studies focused on mixed-ability interactions (n=23), either studying interactions of different disability groups and/or studying the interactions of disabled or non-disabled people (e.g., [11, 15, 38, 135]). Some of the studies also involved *other stakeholders*, such as different types of collaborators (e.g., *instructors*, [19]), not necessarily focusing on their interactions (e.g., mixed-ability interactions), but still involving the perspective or experience of the stakeholders (n=26).

In terms of contribution types, 61 papers in our corpus made empirical contribution, involving only disabled people or also other stakeholders in the research, design, or evaluation process. This is in line with human-centered design orientations of the ASSETS and CHI communities, specifically in accessibility research [87]. Within that, 60 of the papers focused on understanding/presenting experiences of participants and coming up with design insights or recommendations as a research outcome. Only a small portion of research in our sample focused on design (n=6) or evaluation (n=4) of a technology/tool/artifact, with some studies that involve both understanding and design (e.g., [71]), design and evaluation (e.g., [100]), or understanding, design, and evaluation (e.g., [37]). Consistent with earlier accessibility literature reviews in HCI (e.g., [87]), there was a relatively low number of papers making theoretical (n=6) or survey (n=2) contributions, with no papers making methodological contributions. Among 61 papers that made an empirical contribution, 59 conducted user studies, and the rest conducted analysis of existing content (e.g., [56]). We adopted the methodology categorization proposed by Mack et al. [87], while also introducing *autoethnography* as a separate category, as it was the third most frequently used methodology in our corpus. Similar to Mack et al. [87], interviews were the most common methodology in our corpus (e.g., [9, 34, 41, 75, 90], n=32), followed by ethnographic field studies that involve participant observation (e.g., [18, 19, 106], n=11), and autoethnography -including critical autoethnography- (e.g., [48, 66, 70, 79], n=10). Workshop/design methodology (n=9) involved papers engaged in co-design (e.g., [10]), research through design (e.g., [122]), and speculative design (e.g., [102]). Fourteen of the papers used more than one single methodology (mixed-methods approach, e.g., [39, 54, 74]).

3.4.3 Use Cases and Technology Types. Considering use cases of the research in our corpus, general or non-specific use cases represent a significant portion of the reviewed literature (n=13). Following that, everyday life accounts for the largest share (n=15), encompassing a wide range of scenarios such as mobile phone use [12], digital banking [75], or home security [81]. Work and educational contexts account for n=11 of the studies, including settings like remote work (e.g., [135]), higher education (e.g., [20]), and research activities (e.g., [90]), while leisure and entertainment remains a prominent focus (n=9), covering domains such as gaming (e.g., [54]) or crafting (e.g., [19]). Community and collaborative activities exploring settings like community centers (e.g., [34]) and social events (e.g., [114]), account for n=7 of our corpus.

For the technology landscape in our corpus, as shown in Table 1, most frequently encountered category is Assistive Technologies (AT), appearing in 24 studies. Here, we categorized only the papers that made explicit mention of assistive technology (e.g., [34, 47, 48, 99]), for example, *"We aimed to understand the role of AT in these spaces."* [34]. Apart from that, educational and learning technologies form the second most common group (e.g., [49, 83]), underscoring the significant role technology plays in inclusive and adaptive learning practices. Additionally, a notable portion of the literature refers to technologies in abstract or unspecified ways, classified here as conceptual/non-specific use of technology (e.g., [127]), highlighting instances where technology functions more as a theoretical or relational concept than a discrete tool. Other categories, such as personal and everyday technologies, communication and social participation technologies, and creative and artistic technologies appear with moderate frequency, pointing to the diversity of digital engagements. For example, these include audio-enhanced technologies for crafting [19]. Less frequently, studies engage with developer and maker-oriented technologies (e.g., [38]), virtual and augmented reality (VR/AR) technologies, and infrastructure and system tools, suggesting more specialized or context-bound implementations, (e.g., VR systems for people with limited mobility [93]).

In the 49 papers that focus on a specific technology, 36 of them address a single user. Examples from this group include technologies that do not require interaction with others and are primarily designed for solo engagement, such as AI-based technologies used to assist navigation [127] or mobile sound recognition tools [67]. The majority of studies that focus on AT fall into this category.

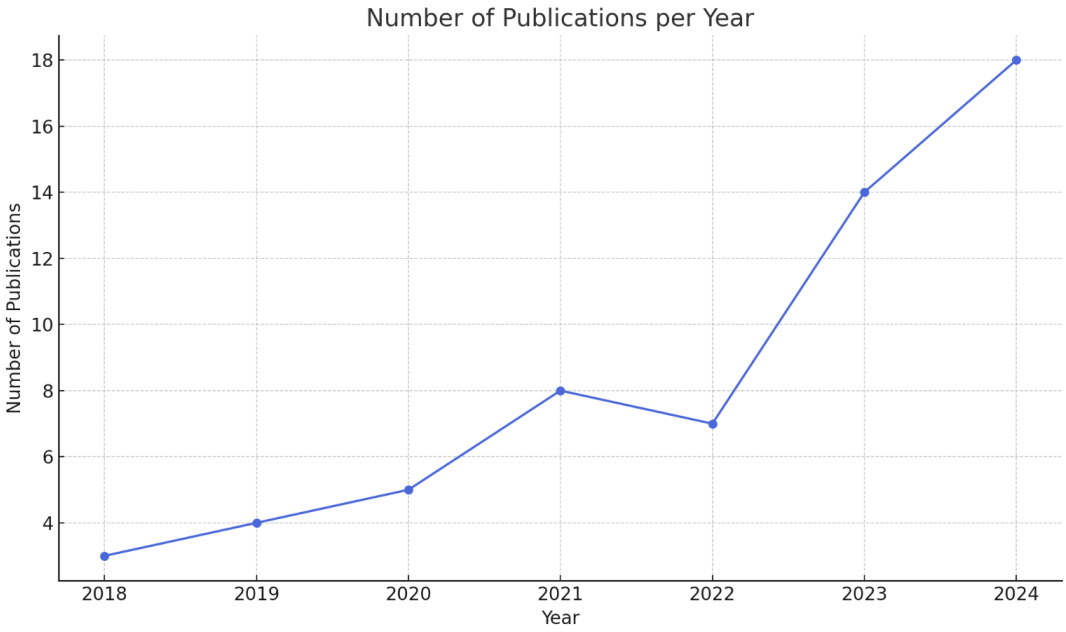

Figure 2: Histogram of publication years for all items in the corpus.

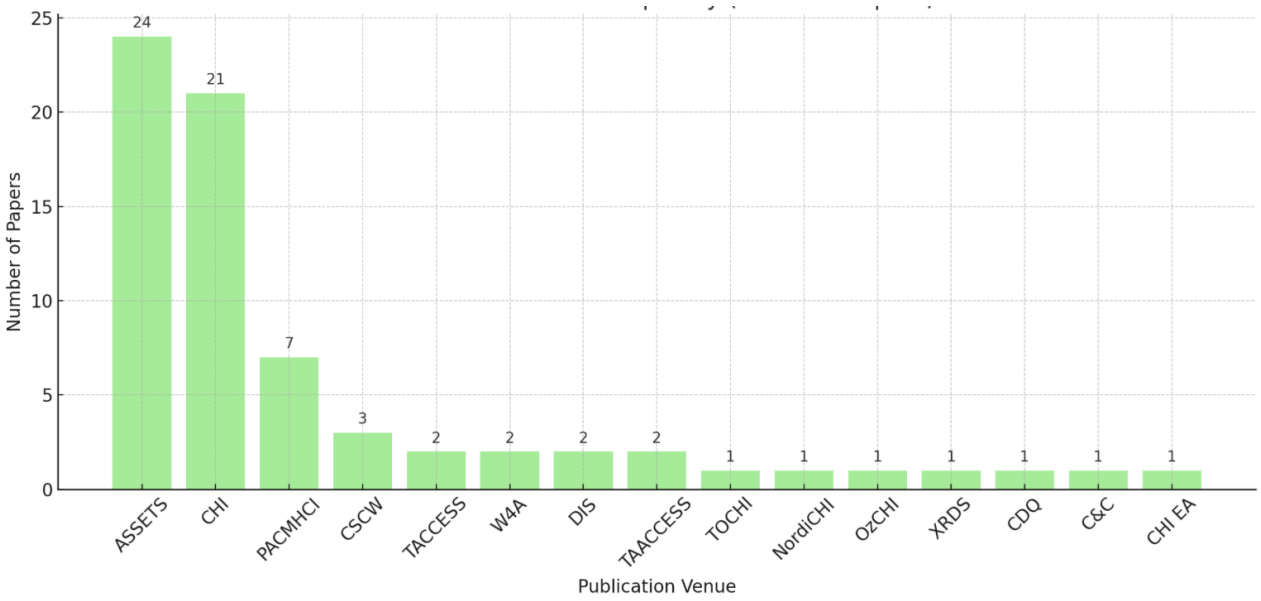

Figure 3: Distribution of publication outlets in our corpus.

Additionally, 12 technologies support dyadic interactions or collaborative settings between two individuals, for instance, technologies to support co-reading [119]. The remaining eight technologies are identified as multi-user, indicating their common use in environments where multiple users engage simultaneously. This includes collaborative writing tools [37], or video conferencing platforms [3, 135]. Within our corpus, 17 technologies appear to span multiple categories, with classifications that suggest their versatility across different scenarios.

4 FINDINGS

Through our findings, we outline how interdependence is conceptualized and applied across the papers, focusing on theoretical grounding and definitions, the use and framing of interdependence,

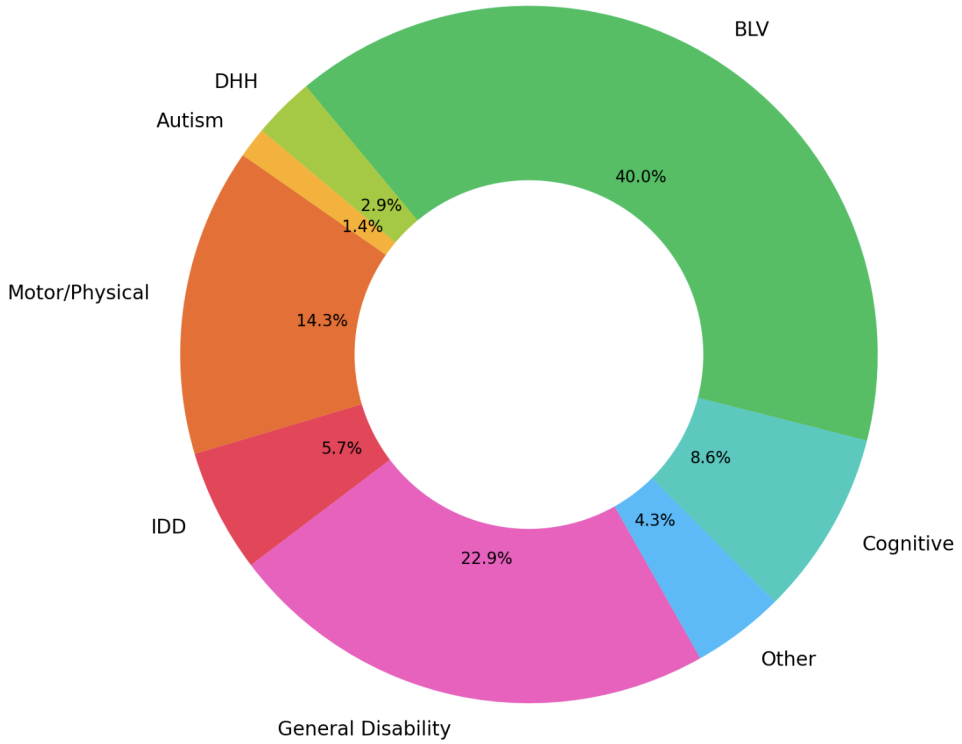

Figure 4: Distribution of communities of focus in our corpus [87].

Table 1: Distribution of technologies in our corpus

Technology Categories	Paper Count #
Assistive Technologies (AT)	24
Educational & Learning Technologies	8
Conceptual / Non-Specific Use of Technology	7
Personal and Everyday Technologies	6
Communication & Social Participation Technologies	5
Creative & Artistic Technologies	5
Developer & Maker-Oriented Technologies	5
Virtual and Augmented Reality Technologies	4
Infrastructure and System Tools	3

related concepts and theories, as well as contributions to the concept.

4.1 Theoretical Grounding and Definitions of Interdependence

This subsection first examines how the papers in our corpus establish the theoretical foundations of interdependence, followed by an exploration of how they define the concept.

4.1.1 Theoretical Grounding of Interdependence. Across the corpus, a large majority of the papers (n=68/70) did offer references to provide theoretical grounding for the concept of interdependence, for example stemming from HCI (n=62) and other academic fields such as Disability Studies, Ethics or Psychology (n=13). There were also references to articles and blog posts published by disabled activists (n=6). Here, literature situated within the HCI research community was most commonly cited (n=62), with all the papers referencing the foundational contribution by Bennett et al. [14]. Interestingly, a large amount of papers (n=50) exclusively relied on these HCI-specific references without grounding the concept in foundational work from Disability Studies or disability activism (e.g., [52, 67, 102]).

In contrast, a smaller number of papers (n=17) brought in perspectives from Disability Studies and/or disability activism alongside HCI references. Here, the majority of papers drew on multiple works by Mingus ([91], n=5), Hamraie ([60, 61], n=3) and White et al. ([128], n=3). These papers traced the roots of the concept to

Critical Disability Scholarship and explored its adaptation within HCI [3–5, 14, 23, 37, 38, 53, 65, 70, 74, 86, 88, 90, 116, 127, 135]. For example, *"[...] scholars from disability studies and recently within HCI have put forth the notion of interdependence as a way of understanding the relational nature of assistive technology use."* [37]. We also want to note that six papers only provided references from Disability Studies and/or disability activism or psychology without any HCI reference. Overall, we observe that these references brought different emphases to the concept of interdependence, and shaped the perspective that HCI research adopted (see Subsection 2.3 for diverse definitions of the concept). Finally, two out of 70 papers in our corpus referred to the concept of interdependence without citing any sources, instead referencing other papers that also use the concept of interdependence [50, 82]. While this does not diminish the relevance of interdependence in these papers, and it is valuable to reference work that applies the concept in similar contexts, we argue that it remains important to return to its theoretical roots. Doing so helps to ensure that the use of interdependence is not only contextually aligned but also theoretically grounded.

4.1.2 Definitions of Interdependence. While many papers referenced interdependence, not all engaged with the concept to the same degree of depth. We found that a little over half of the papers in our corpus did not provide a clear definition thereof (n=37). Only 33 of the 70 papers in our corpus **offered a clear definition** of interdependence by adopting one from a cited source. In most cases, papers adopted a **straightforward definition** from their source, for example, *"The Interdependence framing, adapted from disability studies, argues for the design of technologies to support better collaboration among technology users regardless of their abilities." [133]*. Only a minority of papers framed interdependence in a **more interpretive manner,** adjusting it to their specific setting or use case [9, 15, 20, 119, 138]. For example, *"This frame highlights the non-hierarchical and simultaneous relations between people with and without disabilities."* [119] or *"[...] interdependence, the idea that a given task is achieved with the help of other people or tools while embracing the fact that [...] dependence is not inherently a sign of defeat [...] or an indicator of reduced autonomy."* [138]. Here, the definitions collectively highlight the **interactional and relational dimensions of access**. Definitions anchor interdependence in different layers of relationality from collaboration [133] and reliance on people and objects [118], to environments and assistive technologies [99], and even mutual relations with ecological systems [70]. For example, Janicki et al. link "crip ecology" with accessibility and provide a definition of interdependence as follows: *"[...] both disability studies and environmental studies emphasize 'how the essential practice of radical care for one another, our animals, and the resources on our planet is an act of solidarity, cooperation and co-responsibility', suggesting that the body-minds of disabled folks and the environment are inherently interdependent."* [70]. These definitions collectively suggest that interdependence in HCI research is not merely about interactions of people but encompasses dynamic, reciprocal relationships among people, technologies, and broader socio-ecological systems.

Nevertheless, especially in social interactions between people, interdependence was sometimes viewed in ways that risk **reinforcing hierarchies** between disabled and non-disabled individuals: *"The interdependence framework views the lives of people with disabilities as being highly interdependent with others, such as caregivers, family, support staff, peers, etc."* [81]. In contrast, others challenged such hierarchies, highlighting **mutual collaboration** and **disabled people's active role in creating access** (e.g., [18, 37]), arguing that interdependence is not unidirectional but reciprocal [4]. Research further highlighted the importance of interdependence in **the daily lives** of disabled people. For example, Spiel et al. wrote: *"Interdependence describes how individuals interact with and rely on other people and objects in their daily lives, which is a particularly pronounced experience made by disabled people."* [118], while Hofmann et al. highlighted interdependence as central to **disability identity** [65]. This suggests that in some papers, interdependence is understood not merely as an enabler of social interaction or collaboration, but as deeply intertwined with **disability identity.**

Overall, the breadth of definitions illustrates how **the meaning of interdependence shifts slightly** through different fields and sources. The analysis of theoretical grounding and definitions shows that interdependence is **a loaded and multifaceted term** and while many papers rely on similar references, the interpretations and applications of interdependence vary. This variation further illustrates both the conceptual flexibility of interdependence and the lack of a shared theoretical anchor, a tension that underlies how the concept is mobilized across our corpus.

4.2 Use and Framing of Interdependence

In this subsection, we will first discuss how papers in our corpus practically used the concept of interdependence: 1) as a conceptual and methodological foundation, 2) as a research output and/or interpretation of research outcomes and 3) practical tool in design or evaluation. Then, we provide an analysis of how interdependence is framed: 1) as a socio-techno-relational concept, i.e., one that captures important practical and interactional elements but does not fully address the political and ethical dimensions inherent in interdependence, and 2) as a political and philosophical concept, i.e., builds on the socio-techno perspective by emphasizing power dynamics, disabled identity, and ethical considerations, thereby reflecting the complexity of interdependence as a multi-dimensional concept.

4.2.1 Use of Interdependence. Our results show that papers in our corpus use the concept of interdependence in three distinct ways: 1) as a research output and/or interpretation of research outcomes (n=53), 2) as a conceptual and methodological foundation (n=23) and, 3) practical tool in design or evaluation (n=6). Some papers (n=12) used the concept at least more than one way. For the majority of the papers (n=53), interdependence appeared as research output and/or for the interpretation of research outcomes, such as in the context of audio description (AD) for blind and low vision (BLV) people, researchers explain that *"We apply this framework to AD creation and recognize how the unique contributions of BLV and sighted people can be integrated."* [71]. As an example of conceptual and methodological foundation, exploring the experiences of "mobility impaired people" through physical and digital technology, researchers used the concept of interdependence as a framework: *"In this paper we use the lens of interdependence and human infrastructure to understand the modalities in which people with mobility*

impairments living in [...]" [12]. Similarly, in the context of mixed-visual interaction, the concept of interdependence informed the research questions, such as *"What are the key elements that characterize that interdependent collaboration between visually impaired runners and guides?"* [11]. There were very few papers (n=6) that use the concept of interdependence as a practical tool in design or evaluation. For example, through a mixed-ability research through design process, researchers discussed the role of assistive technologies to support the collaboration between sighted and blind and low vision people [49]. These patterns indicate that while interdependence is most commonly leveraged to interpret findings or appear as a research outcome, its potential as a guiding framework or practical design tool remains underexplored, highlighting further opportunities for more diverse applications in HCI research.

4.2.2 Framing of Interdependence. At a deeper level, we also show how the papers in our corpus conceptually frame interdependence. In many of the papers in our corpus (n=50), interdependence was framed as a **socio-techno relational concept**, that it is an enabler of accessible assistive technology through its emphasis on collaboration and relationality. In another set of papers, interdependence was framed as a **political and philosophical stance** that foregrounds the access labor of disabled people, emphasizing mutual care between disabled and non-disabled people, and thus serving as an enabler of technology design that challenges ableist assumptions of independence. These framings help distinguish whether interdependence is primarily treated as a practical principle for technology and interaction or as a broader political, ethical, and social stance. In our corpus, a small subset of papers spanned both categories (n=16). This illustrates that the two framings are neither mutually exclusive nor strictly complementary, but that the political perspective extends the socio-techno framing into dimensions that are otherwise underexplored.

1) Interdependence as a socio-techno-relational concept: Interdependence as a socio-techno-relational concept frames access, care, and collaboration as emerging from dynamic interactions between disabled people, social context and technologies. It opposes seeing the interaction of people and technology in one way and isolated, for example: *"[...] moving beyond models isolating children with disabilities and their assistive technologies from their social and institutional context"* [24]. The central argument here further emphasized that external factors such as the physical environment or technology, don't solely determine accessibility, but that social support from caregivers, support networks, close circles, collaborators or strangers etc., plays a crucial role that needs consideration (e.g., [6, 41, 116, 117]). Here, interdependence is framed as **a design principle for technology** that is "socially enabling, affords reciprocity in interaction, and lets users participate in social interaction on their own terms" [116].

For example, Kameswaran et al. highlight that *"[...] people with disabilities' mobile practices are determined by many components, including assistive tools, the availability of care-givers, the conditions of the accessible facilities, the schedules of various services, the regulations of difference spaces, acquaintances with similar impairments, as well as other people (often strangers) who are present and share the same space."* [132]. This underscores how interdependence encompasses not only the direct interaction with technology but also the broader ecosystem (e.g., services and spaces) that shapes everyday accessibility practices. Also, for some papers, interdependence is framed as the **a strategy for creating access**, especially when addressing situations of inaccessibility. Referring to interdependence, South et al. frame this as *"[...] participants described their practices of relying on trusted family members or friends to help them stay safe while watching films or television"* [117]. Therefore, technology design needed to be consider the social context: *"[...] they may be isolated from others who could help. To overcome such problems, the reporting tool could be designed to leverage the typical interdependence."* [126]. Here, studies shifted the focus from individual capability or technology alone to the broader network of social and material factors that co-construct accessibility collectively.

Some papers discussed that excessive dependence on technology without social interaction may also have negative consequences, referring to the concept of "withdrawal of access": *"Although assistive robotics technology may increase independence and autonomy, it can also result in the loss of social capital and contact, which may have serious consequences if the technology fails."* [47]. Here, interdependence is presented as an **enabler of technology design** that also involves "human carers", *"[...] people and technology are [...] continuously shaping each other, forming an interdependence between humans and technology."* [47]. In contrast, there were papers that argue that in the case of inaccessible technology, relying on social support may create "*undesired dependency*" on other humans for disabled people, which does not lead to meaningful interdependence [50]. So, our corpus brings attention to complexity of interdependence, showing that over-reliance on either technology or social support may undermine meaningful participation. Finally, interdependence was framed as a socio-techno-relational concept to facilitate **mixed-ability/ability-diverse interactions** that contribute to community building (e.g., [6, 11, 37, 38, 107, 117, 125]. Here, technology informed by the concept of interdependence may *"compliment and possibly extend individual and collective capacities"* [127].

Overall, these diverse framings position interdependence not as a limitation or secondary condition, but as a **foundational socio-techno-relational principle** that leverages social networks to shape how disabled people use technology and supports collective capabilities.

2) Interdependence as a political and philosophical concept: For some papers in our corpus, interdependence was framed beyond its function to highlight interaction, extending to a political and philosophical perspective to redefine access not as an individual need but as a shared, collective responsibility, positioning it as a foundational principle for both the **representation of disabled people and the labor of access**. As a representative example, Hofmann et al. highlight that: *"Interdependence embeds access work in a larger context of relationships, disability identity expression, and shared creation and conceptualizing of disability."* [65]. This example illustrates how interdependence is deeply intertwined with disabled identity and the collective conceptualization of disability, highlighting the political and ethical dimensions of the concept. Similarly, Xiao et al. underscore the contributions of disabled people through the interdependence framework, *"[...] we incorporated the principle highlighting the often neglected contributions of individuals with disabilities"* [133] and show how framing of interdependence

politically and philosophically brings justice to disabled interactions by ensuring that the contributions, labor, and agency of disabled individuals are recognized and valued.

Further, in similar directions around reinforcing justice and equity in collaborative interactions, interdependence also allowed for collective norm making: *"Rather than requesting or establishing norms individually, we recommend holding a team discussion to establish norms collectively and holistically as a community. [...] drawing from interdependent models of communities, this process could lead to more accommodations with benefits for multiple people [...]"* [85]. Here, it is suggested that technologies as well need to **be mindful that access work is done with people:** *"It is important that emerging obfuscation systems recognize the work already performed by blind and low vision people [...]"*, [4]. Centering the agency and autonomy of disabled individuals, papers also questioned technologies´ role on supporting the **flexibility** between independence and interdependence: *"ATs supporting independence and interdependence must be a flexible system that can support a BLV student in both contexts"* [83]. Here, it is also discussed that involving stakeholders does not always mean that the disabled people cannot have an 'independent' relationship with the technology: *"[...] we can support students using technology independently while still considering this interdependence framework."* [126].

Finally, the concept of interdependence also approached as a potential to transform research processes, by redistributing power within research, challenging traditional hierarchies between researchers and participants, and embedding accessibility and care as a collective responsibility [71, 121]. As Baldwin et al. illustrate, *"[...] people with disabilities are not simply "recipients", as Bennett et al. point out, but designers, facilitators, and participants in the co-design process"* [10]. In the case of DIY-AT, Higgins et al. highlight the contributions of stakeholders, and how **"interdependence led to the democratization of the research process"** [64]. Taken together, papers that reflect this perspective frame interdependence not only as a mode of interaction but as a **political and ethical stance**, one that redefines accessibility as a collective, relational practice and affirms the agency of disabled people as co-creators of knowledge and accessibility, **including norms of designing and using technology.**

4.3 Connections of Interdependence with Related Concepts and Theories

Our results show that the majority of the papers in our corpus used at least one theory or concept, along with interdependence (n=61). For example, independence, collaboration and cooperation, care, autonomy, agency, empowerment, mixed-ability, dependence, intersectionality, collective access, trust, power dynamics and relational technology were the prominent concepts that are used by at least two papers in our corpus. For theories and frameworks, disability justice, crip technoscience, and models of disability, such as the social model or political/relational model, were the prominent ones. Full list of the concepts along with the examples from papers can be found in Appendix A.

Here, **independence** appeared as the most frequently cited concept through the papers in our corpus. We found that 25 papers in our corpus conceptualized interdependence in relation to independence, either by positioning it as its **opposite, antithetical concept** or as an **extension that transcends the limitations of independence**. For example, in the context of blind or visually impaired software developers, Potluri et al. show that *"Bennett et al.'s reframing of the goals of assistive technology as interdependence instead of independence ring true in CodeWalk's scenarios"* [104]. or in the context of accessibility of virtual reality for people with limited mobility, Mott et al. present that *"Unlike designing for independence, which presumes users are interacting with systems alone, designing for interdependence explicitly highlights the need for collaboration between users and other people."* [93]. Interestingly, there were rare papers that built the relation between independence and interdependence in distinct ways. For example, Vincenzi et al defined interdependence as a form of independence, highlighting that independence is also achieved by interdependent interaction of disabled and non-disabled people [127]. Or, there were papers (n=3) that also included the *dependence*, by illustrating that *"interdependence—rather than dependence or independence—enables seeing people with disabilities as agents in creating access"* [37]. According to Bircanin et al., interdependence was connected with dependence, in a way to *"revitalize"* the *"inevitable dependence"* and define *"inextricable interdependency"* to explain that any human life is intertwined with others [18]. These examples indicate that interdependence is a nuanced concept that both challenges and extends traditional notions of independence. It also suggests a critical tension: By defining interdependence primarily in relation to independence may lead to oversimplification of both concepts as inherently good or bad, rather than recognizing them as distinct, complex constructs with their own opportunities, limitations, and relational dynamics. While many papers contrast interdependence with independence to critique individualistic notions of access, others embed it within broader frameworks of care, collaboration, and agency, showing its potential to reimagine how access is collectively enacted. Frameworks like disability justice and crip technoscience further develop this perspective by **situating interdependence in broader histories of disability activism.** This diversity of related concepts underscores that interdependence in HCI is a **dynamic concept,** shaped by different concepts, theories and frameworks.

Theories and approaches that shaped, informed, or were applied include **disability justice** ([17, 103], n=5), **crip technoscience** ([62], n=2), and models of disability (n=6) such as **social model of disability** [113] and **political/re-lational model of disability** ([73]). While both disability justice and crip technoscience embrace interdependence as a counterpoint to individualist norms, they emphasize different dimensions of the concept (e.g., disability justice emphasizes ethical-political interdependence [69, 103], while crip technoscience highlights material-relational interdependence [62]). Papers employing the political/relational model of disability often link the relational dimension of these theories to the concept of interdependence (e.g., [38, 99]). This mapping suggests that interdependence must be understood through the diverse perspectives offered by these frameworks, each highlighting different yet complementary ways in which interdependent interactions are formed.

4.4 Contributions to Interdependence

This subsection outlines the contributions of the papers in our corpus to the concept of interdependence as follows: 1) **applications** of the concept to different use cases (n=61), and 2) **expansions** of the concept of interdependence in a way that widened our understanding thereof (n=17).

4.4.1 Applications of the Concept of Interdependence. The majority (n=61) of the studies in our corpus that apply the concept of interdependence to different use cases showed how the concept could be leveraged and understood, including the cases of shared norm making [85], relocation [134] or travel [138]; activities such as co-weaving [38], co-reading [119] or running together [11]; contexts and settings such as less controlled environments [132], research settings [53, 88, 90], maker-spaces [6] and through different interaction types such as trusted networks [117], support networks and communities [9], close circles [65], ability-diverse/mixed-ability interactions (e.g. [104, 107, 133]), staff-customer interactions [75] as well as through different technologies such as VR (e.g., [50, 93, 117]), accessible crafting technologies [19] or AT (e.g., [64, 127]), (also see 3.4.3). For example, Higgins et al., highlighted the interdependent collaboration of different stakeholders: *"Our study has provided an example of how HCI researchers, government organizations, and individuals who need AT can work together [...], how these three roles are interdependent upon one another"* [64].

Similarly, Crawford et al. showed the importance of interdependent support networks: *"We also highlighted the crucial role of friends and support networks [...] and underscored the significance of promoting interdependence in community centers."* [34]. Other illustrative examples show how interdependence takes place in mixed-ability activities: *"[...] understand the interdependent relationship between visually impaired runners and sighted guides in-situ and unpack the communication strategies that these pairs employ [...]."* [11]. Here, we observe that the papers adapt the perspective and definition of interdependence and demonstrate **how it operates within their specific use cases:** How it manifests across diverse activities, contexts, and technologies. However, they do not, in turn, engage in a deeper conceptual discussion or contribute to the further development of the concept itself.

4.4.2 Expansions of the Concept of Interdependence. A small-er number of papers (n=17) **effectively expanded upon the concept of interdependence** in a way that widened our understanding of interdependence in HCI by either contributing to the original definition or frame that was first introduced to HCI by Bennet et al. [14]. These papers meaningfully discussed interdependence in relation to other concepts and critically evaluated the term, going beyond merely illustrating how the concept appears within the specific research focus of each paper.

As an illustrative example, Teng et al. [122] focus on mixed-ability interactions in the context of supporting face-to-face help, and discover how assistive technology (AT) can support interaction between blind and low vision (BLV) and sighted strangers. Through a research-through-design process, they explore *"The design space for a new category of assistive technologies [...] whose purpose is to accompany both BLV and sighted people in person to address the social barriers that prevent help."* ([122], page 2). They organize the design goals around two phases of assistance: A connection phase, where a blind person or person with a low vision (BLV) and a sighted stranger initiate contact, and a collaboration phase, where they work together in person [122]. Through a research-through-design process, they highlight different configurations of interdependence and discover users' attitudes toward them: In combination with the initial work by Bennett et al. [14], they provide a "reproduction of the interdependence framework" ([122], see figures on page 19) for both phases. First, interdependence becomes a process of initiating collaboration, where the assistive technology acts as an active facilitator, coordinating relations among all actors. Second, the sighted person becomes the primary facilitator between the blind person or person with a low vision (BLV) and the environment, while the technology supports mutual understanding. Overall, the work by Teng et al. [122] is significant in two ways: First, it applies the interdependence framework in a mixed-ability setting, serving as a representative example of how interdependent dynamics manifest in real-world HCI use cases. Second, and more importantly, the paper extends the existing framework by illustrating the mechanisms through which technology can meaningfully mediate interdependent interactions. Specifically, it highlights **how AT does not simply serve as tool for disabled users, but also redistributes access labour and facilitates coordination among all participants.** In this way, the paper advances the framework beyond theoretical application, offering concrete insights for designing AT that supports collaborative, interdependent interactions across diverse abilities [122].

Further, Wu et al. extend the existing definitions by showing different strategies for affording accessibility: *"[...] our study extends the framing of interdependence by highlighting the work people do to align and realign their relations [...]. [...] it is not simply that people and things are interdependent, but that people gain awareness, and weave and align different people and things together so that accessibility is afforded"* [132]. Interestingly, Janicki et al. showed how interdependence may look like in more-than-human relationships in the case of disability, expanding the original definition of interdependence being between humans and technology [70]. In some cases, researchers established meaningful connections with other relevant concepts (also see 4.2.2) in a way that updates our understanding of interdependence (e.g., [15, 23, 74]). For example, Kameswaran et al. highlighted the notion of **equity** in interdependent relationships, and how it is also connected with the "perceived sense of independence": *"It is the way that these interdependencies play out -with greater or lesser equity- that gives us our sense of independence despite our practical day-to-day interdependence. In our study, our participants' sense of independence in part stemmed from an interdependent relationship with the driver."* [74].

Finally, another way of expanding upon the original framing was through engaging in a critical appraisal of the concept of interdependence, or reflecting on its possible limitations (n=10). For example, concerning the nature of the interdependent relationships, Hamidi et al. problematize and criticize the *"the particular form it takes as care work"* [59], i.e., questioning power hierarchies and dependencies between people. Similarly, it is also highlighted that interdependent relations *"can be subject to breakdown"* [127], which is something that needs to be accounted for when leveraging the

concept in technology design. This consideration extended to specific contexts, such as use of security-related technologies (e.g., *"are some classes of technology fundamentally in conflict with the concept of interdependence for accessibility?"* [76]), to settings where there is a language barrier that blocks social interactions [134], or in professional contexts, when it means relying on others without **agency** to choose when to do so [3]. Further differentiating between **"meaningful interdependence"** and **"potentially undemanded dependency"**, Gerling and Spiel highlight that *"[...] if people with physical disability depend on the help of others to set up a system that is ultimately intended to provide single user experiences, it does not lead to meaningful interdependence, but increases potentially undesired dependency [...]"* [50]. This reflects considerations by Bennett et al., who demonstrated that interdependence may not be empowering if it emerges from a **lack of structural support** [15]. These critiques reveal that interdependence is not inherently liberatory and its value depends on whether the surrounding infrastructures enable agency.

5 DISCUSSION

In this section, we first revisit our research questions (RQs) and provide answers to them. We then discuss the concept of interdependence to show how accessibility studies in HCI build on insights from Disability Studies, and we critically reflect on how our community engages with concepts adopted from other disciplines, particularly Disability Studies.

5.1 RQ1: In which ways does the accessibility community in HCI conceptualize and apply the concept of interdependence?

Our work shows that the concept of interdependence already is a **complex and multifaceted** one within the fields and movements from which it emerged, including Disability Studies and disability activism. Reflecting this, our analysis of accessibility research in HCI reveals a similar pattern: There is no single, agreed-upon way of conceptualizing or applying interdependence (see Subsections 4.1 and 4.2). Instead, our analysis shows that there are currently a range of approaches to conceptualizing interdependence. Within different theoretical frameworks and from different fields (e.g., Disability Studies, Rehabilitation Studies, or other fields of Social Sciences), the meaning of the concept slightly changes (see Subsections 4.1 and 4.3). This is reflected in the accessibility research within our corpus in various ways, particularly in how interdependence is used and framed (see Subsection 4.2). Collectively, these perspectives offer a diverse picture of the **form, nature, and participants of interdependent interactions** (see Subsection 4.2). While the term is theoretically grounded in diverse sources spanning multiple disciplines (see Subsection 4.1.1), we also note that the majority of works strongly rely on the foundational HCI reference by Bennett et al. [14] that first introduced the concept to the field. This risks limiting theoretical and conceptual diversity by repeatedly anchoring interdependence to a single interpretation rather than exploring alternative or expanded interpretations. Yet, despite this common reference point, our corpus demonstrates a range of divergent interpretations of interdependence. For example, while many papers emphasized collaboration between people (e.g., in the use of technologies), the relational qualities of this collaboration widely varied: Some framed them as *mutual and care-based*, while others portrayed a hierarchical dynamic, positioning the non-disabled person as the *helper* and the disabled person as the *care receiver*.

This resulted in varying interpretations of interdependence, spanning from **reciprocal** to **hierarchical** to **collective** forms, each involving different configurations of power relations, ranging from more equally distributed to more uneven, and creating distance from the original definitions of the concept from ethics [51, 63, 94], and Disability Studies and disability activism [31, 45, 91], including the foundational HCI work by Bennett et al. [14] (see Subsections 2.2 and 2.3). This may be connected with the general trend of leveraging the concept in a cursory way, with many papers making reference to interdependence without in-depth definition thereof or contextualization in relation to their work, which we discuss in more detail in the following subsection. Another reason may relate to Reindal's emphasis on the differing perspectives of professionals and the disabled community regarding interdependence - framed as self-care versus control and decision-making [105]. Here, the majority of the papers that frame interdependence as a **socio-techno relational concept** highlight the relevance of interaction and collaboration, but they often treat these interactions as inherently positive or ideal. This framing tends to foreground coordination, teamwork, or dyadic interaction without interrogating how these interactions are structured, who sets the terms, and whose labor sustains them. As a result, the socio-technical framing frequently captures the presence of interdependence but not its politics (see Subsection 4.2.2).

In contrast, papers which frame the concept as a **political and philosophical concept** (see Subsection 4.2.2), did underscore the relevance of mutual care, the role and labor of disabled people and especially question the notion of **equity** in interdependent relationships, more closely echoing Mingus's arguments on power imbalances in interdependent relationships [91] and Bennett et al.'s framing [14] that highlighted the importance of *equal and active* participation and *self-determination* of disabled persons in interdependent interactions with technology (see Subsections 4.2.2 and 4.3). Finally, our analysis shows that HCI research has applied interdependence across **diverse technologies and use-cases,** (see Subsection 3.3), and has demonstrated how various modes of interaction can be shaped by it. Here, our analysis shows how interdependence is conceptualized is directly in relation to how it is applied, showing that conceptual choices in HCI not only reflect understanding of the concept, but actively shape the nature of interdependent practices (see Subsections 4.1 and 4.4. Overall, we believe that this practical approach to interdependence illustrates a strength of HCI research in applying interdependence, which we discuss in more detail below.

5.2 RQ2: What are the strengths and shortcomings of how interdependence is currently conceptualized in HCI?

In terms of strengths, our analysis shows that the HCI community has effectively demonstrated how accessibility research can benefit from the interdependence perspective, showing how it can be used

in diverse ways, also informing the research process and/or technology design (see Subsection 4.2.1). Further, papers in our corpus offer real-world examples demonstrating how interdependence can foster positive outcomes or, conversely, present challenges, as illustrated across various use cases (see Subsections 4.4 and 4.4.2). Building on the insights of Disability Studies scholars such as Shakespeare [112] and the work of disability activists such as Mingus [91], Bennett et al. [14] note in their foundational work that interdependence can give rise to "both positive and negative experiences" (page 3). For example, the features of **different technologies** shaped how interdependence could be approached [76], or **characteristics of different interactions** [74]) introducing practical challenges to our understanding of the concept (see Subsection 4.4). This may lead us to view interdependence as a **contextual rather than a fixed concept**, one that calls for rethinking across different contexts and circumstances. Here, HCI research critically questions the nature of the concept and how technology design should approach it (see Subsection 4.4.2). HCI research further demonstrates value of interdependence as a practical tool for the design and evaluation of (assistive) technologies, while also revealing the strengths and limitations, as well as complexities and tensions of the concept in this applied context. Further, through different use-cases and technologies, accessibility research also shows when interdependence fails, and critically evaluates the limitations of the concept (see Subsection 4.4.2). Here, we note that HCI research successfully illustrates the contingent and context-sensitive nature of interdependence.

However, there are also some shortcomings that we have identified through our analysis that need attention for further development and integration of interdependence within our field. First, given the multiple layers and dimensions of the concept discussed above, when authors mention interdependence only by citing a reference but without a direct or interpreted definition (see Subsection 4.1.2), it remains unclear which specific meaning of interdependence they are invoking and also how the paper positions itself in applying and/or extending the concept. Additionally, solely relying on Bennett et al.'s work [14] without tracing interdependence back to its original sources (see Subsections 2.2 and 2.3) risks narrowing the understanding of the concept, missing the nuances, and **overlooking its conceptual development.** To properly **conceptualize and even reexamine** the concept, we argue that it is essential to first examine its origins, trace its development, and understand its relationship to other concepts and/or other theories that have adopted it. This limitation becomes visible in how interdependence is framed as a dichotomy of independence, despite how Bennett et al. argue for the opposite by highlighting "independence and interdependence are not dichotomous or mutually exclusive" ([14], page 3.), or how as Cohen puts it, interdependence could be perceived as an integral part of independence [33]. Interestingly, our analysis reveals the tendency in HCI research to frame interdependence as standing in contrast to, and even as an antidote to traditional ideals of independence (see Subsection 4.3), **overlooking the fluidity of the two concepts and instead placing them at opposite ends of a spectrum.**

Nevertheless, there are also accessibility papers in HCI that focus on "independence" but define it in terms of control and autonomy, or sometimes agency, rejecting the dependence-independence dichotomy [80]. Some papers in our corpus frame interdependence as an enabler of access in case of inaccessible infrastructure, even though previous work has emphasized that "interdependence does not ensure access" ([14, 91]), and that independence and interdependence are in fact complementary [128]. Here, Hegel highlights the importance of "meaningful choice" [63] and Mingus underscores the need to acknowledge "power imbalances" to prevent interdependent care relationships from reinforcing systemic inequalities [91]. There are only a few papers in our corpus [83, 126] that addressed **how technology design could accommodate this flexibility between independence and interdependence, based on the choice and preferences of disabled people** (e.g., disabled self determination [25]), even though there are significant amount of papers that reflected on the limitations of the concept as discussed above. This represents a missed opportunity for HCI accessibility research to position **(assistive) technology as a key tool for self-determination,** enabling "meaningful choice" [63] for disabled users to decide how and when to rely on independence or/and interdependence (see Subsection 2.2).

This also relates to how concepts of autonomy, power, and choice are represented during research processes, and **how an interdependence perspective may play a role in transforming the research process itself.** Only a few papers in our corpus reflected on this (see Section 4.2.2). When viewing research as an interdependent process in which both the researcher's and the participant's expertise are valued, boundaries can be collaboratively and flexibly developed, and the research space becomes an opportunity for mutual sharing, learning, and growth. Adopting the perspective and principles of participatory design (PD) [109] together with the interdependence perspective may have potential here as PD's emphasis on shared decision making aligns with interdependence's focus on relational access, enabling more equitable research collaborations. Finally, a large share of papers in our corpus focus on people who are blind or have low vision. This pattern mirrors broader trends in HCI accessibility research [87, 120, 133], and has epistemological implications for whose experiences are centered. Specifically, in our case, it shows that even within research focused on interdependence, the diversity of disability experiences is not fully represented. This risks shaping the concept in HCI research in ways that are strongly informed by some communities of disabled people, while neglecting the experiences and perspectives of others.

Table 2: A Refined Framework for Meaningfully Integrating Interdependence in HCI Accessibility Research

	Guiding Questions
1. Theoretically Grounding and Defining Interdependence Reading a core paper that introduces a concept to HCI is a good start. However, to avoid restricting your research to a single perspective and to ensure that the concept remains rich and grounded in its original roots and field of research, it is important to go back to the original sources (see Subsections 4.1 and 4.4).	(1) Have you engaged with the original scholarship from the field in which the concept originated? Reviewing the references cited in key HCI works (e.g., Bennett's foundational paper [14]) is a starting point for tracing the concept's origins. Ensure that the theoretical and political roots of the concept in Disability Studies and activism remain visible. (2) Based on the theoretical grounding, which definitions of interdependence are you adopting, and why? Are you somehow redefining interdependence? If so, in which ways? This can help situate your work and position it to contribute to interdependence rather than limiting itself to application.
2. Conceptual Positioning and Framing of Interdependence Concepts are never static or absolute with fixed meaning, but relative ones [78]: New and emerging perspectives, discussions, and related concepts continuously shape them. Keeping track of contemporary debates and critically evaluating a concept's relationship with other theories is crucial (see Subsections 4.1 and 4.3).	(1) Does your work reflect how the concept is developed and evolved in Disability Studies and HCI? How does this map to your research? Understanding which publications followed the introduction of the concept by Bennett et al. [14] may be helpful. Keeping up with current discussions on its transformation in Disability Studies is also important. (2) How do you position independence and interdependence? What is the role of (assistive) technology in supporting flexibility between these two? This contributes to the discourse on independence vs. interdependence and/or dependence (e.g., [78, 95]) and advances our understanding of technology's nuanced role. (3) What other concepts, frameworks, and theories are related to interdependence, and how are these represented (or absent) in your adoption of interdependence? Why?
3. Continuous Reflection on the Application of Interdependence To ensure that the multi-layered nature of interdependence is properly represented in technological research and design, it is crucial to reflect on the dynamics of real-life use cases both during and after the research period (see Subsections 4.2 and 4.4).	(1) How does the nature of the interactions your research focuses on (e.g., norms and power dynamics in the relationship) shape or challenge how interdependence operates? Asking critical questions about whether interdependence supports disabled self-determination helps maintain grounding in Disability Studies and activism. (2) Do you conduct evaluation studies to examine what kinds of interdependent relationships your technology leads to? How do these relationships manifest in real-life settings over time? (3) How does using interdependence as a framework influence your research design, e.g., methodological choices, participant recruitment, research process, and researcher-participant relationship?

5.3 Reflections on Leveraging Disability Studies in Accessibility Research In HCI: The Case of Interdependence

With the aim of expanding HCI's view of assistive technologies and their place in the "complex world of disability", Mankoff et al.'s core paper [89], (page 9) had a substantial influence on how HCI research engages with Disability Studies, particularly Critical Disability Studies. Further, specifically for the concept of interdependence, Bennett et al. also show practical examples of how the concept might be useful for shifting our understanding in assistive technology design and research [14]. Here, we argue that, instead of viewing the adoption process as complete once researchers first introduce a concept or theory, it also needs to be explicitly understood as an ongoing process of engagement, which involves continuous critical reflection, adaptation, and dialogue with its original context and evolving interpretations. This raises the question of how accessibility research in HCI adopts and applies theories, concepts and frameworks from Disability Studies literature. In this context, our analysis shows that it is crucial to attend to how concepts and theories evolve over time. This is in line with ongoing discussions in HCI community on the process of adopting theories and concepts from other fields [36, 65, 89, 111, 123, 129]. For example, Sengers et al. argue that theoretical positions adopted in HCI carry deeply rooted values and traditions shaped by their often-contested histories [111]. Yet, when taken up by other disciplines, there is a risk that these rich histories and the nuanced practices they embody may be overlooked or diminished (ibid.), a concern that our review also highlights in relation to interdependence (see Subsections 5.1 and 5.2). This risks narrowing the scope of what interdependence can offer as a conceptual lens and as a practical design orientation.

Here, for accessibility scholars in HCI, Hofmann et al. advocate for moving beyond acknowledgment toward fostering meaningful, sustained, and reciprocal collaborations with Disability Studies [66]. For the case of interdependence, more meaningful integration would require not only citing the concept, but also engaging with its origins, its conceptual relationships to related ideas (e.g., disabled self-determination [92], agency [44], autonomy [43], equity [2]), and its potential tensions with other constructs such as independence [101]. Beyond Disability Studies, we emphasize the vital contributions of disability activists to shaping the notion of interdependence, recognizing that previous research has already underscored the imperative of citational justice in acknowledging their work [121]. Keeping up with contemporary discussions around the concept in Disability Studies and activism is also crucial, especially integrating critiques of scholars (e.g., [45, 78, 91, 95]) that allow for a more nuanced perspective on interdependence: One that acknowledges the ethical and epistemological significance of both interdependence and dependency, and considers how power, asymmetry, collaboration, care as well as autonomy and self-determination are constitutive elements of accessibility work in HCI. Finally, since accessibility research in HCI continues to adopt new perspectives from Disability Studies literature and disability activism (e.g., messy dependency [95]), it is important to remain aware of how these diverse yet related concepts speak to each other.

5.4 A Refined Framework for Meaningfully Integrating Interdependence in Accessibility Research in HCI

Building on these arguments and informed by our literature analysis, we propose a three-part framework that maps to our analysis (see Section 4). Within each category, we provide an explanation, along with guiding questions - an approach previously applied in accessibility research in HCI [130] - for other researchers to reflect on the way they integrate the concept of interdependence in their research, that is presented in Table 2.

6 LIMITATIONS AND FUTURE WORK

Several limitations should be considered when interpreting our literature review. First, as our work focused on HCI research, we restricted our search to the ACM Digital Library Guide to Computing Literature. This may have led to the exclusion of relevant work on technology design and disability published in other venues. Second, we excluded papers that mentioned interdependence only in their background section without further engagement in the main body of the text, as our aim was to capture studies that actively use and apply the concept rather than merely cite it. However, this approach might have resulted in the exclusion of papers where interdependence plays an implicit yet significant role, or where its influence is embedded in related concepts without being explicitly named. Previous work [133], along with our analysis, indicates that the use of the concept of interdependence in HCI literature is on the rise. Future research could build on this by systematically tracking and analyzing how this trend evolves over time.

Further, building on the growing discussions around how the HCI accessibility community integrates concepts and theories from Disability Studies [65, 89, 129], future work should continue to explore other concepts (e.g., invisible work of access/access labor, collaborative access) to broaden and deepen the conversation. Finally, our review heavily relies on Bennett et al. [14], which is understandable given its foundational role in translating interdependence from Disability Studies into HCI. To ensure a more nuanced conceptual grounding, we also incorporated additional perspectives from Disability Studies (drawing both on sources frequently cited by the papers in our corpus and on works cited in Bennett et al. [14]) However, this reliance on a single foundational text introduces a limitation: centering one conceptual lineage can narrow the theoretical diversity of our analysis by foregrounding certain interpretations of interdependence while sidelining alternative framings that might emerge from other perspectives.

7 CONCLUSION

In this literature review, we examined 70 papers from ACM Digital Library Guide to Computing Literature that engage with the concept of interdependence, aiming to understand how interdependence is conceptualized and applied in HCI and to identify strengths and shortcomings in current conceptualizations. Our analysis highlights four key areas: 1) theoretical grounding and definitions, 2) use and framing, 3) connections to related concepts and theories, and 4) contributions to interdependence. Our analysis shows that while HCI broadens the scope of interdependence by demonstrating its contextual, relational, and design-relevant dimensions across

diverse technologies and interactions, the integration of the concept remains partial due to inconsistent definitions, limited engagement with its theoretical roots, and a tendency to frame it in reductive contrast to independence rather than as fluid and evolving. We conclude by reflecting on the value of drawing more deeply on Disability Studies in accessibility research in HCI and by offering **a refined framework with guiding questions** to support researchers in meaningfully integrating the concept of interdependence in their work.

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REFERENCES

[1] Julio Abascal. 2002. Human-computer interaction in assistive technology: from" Patchwork" to" Universal Design". In *IEEE International Conference on Systems, Man and Cybernetics*, Vol. 3. IEEE, 6–pp.

[2] J Stacy Adams. 1965. Inequity in social exchange. In *Advances in experimental social psychology*. Vol. 2. Elsevier, 267–299.

[3] Taslima Akter, Yoonha Cha, Isabela Figueira, Stacy M. Branham, and Anne Marie Piper. 2023. "If I'm supposed to be the facilitator, I should be the host": Understanding the Accessibility of Videoconferencing for Blind and Low Vision Meeting Facilitators. In *The 25th International ACM SIGACCESS Conference on Computers and Accessibility*. ACM, New York NY USA, 1–14. https://doi.org/10.1145/3597638.3608420

[4] Rahaf Alharbi, Robin N. Brewer, and Sarita Schoenebeck. 2022. Understanding Emerging Obfuscation Technologies in Visual Description Services for Blind and Low Vision People. *Proceedings of the ACM on Human-Computer Interaction* 6, CSCW2 (Nov. 2022), 1–33. https://doi.org/10.1145/3555570

[5] Rahaf Alharbi, Pa Lor, Jaylin Herskovitz, Sarita Schoenebeck, and Robin N. Brewer. 2024. Misfitting With AI: How Blind People Verify and Contest AI Errors. In *The 26th International ACM SIGACCESS Conference on Computers and Accessibility*. ACM, St. John's NL Canada, 1–17. https://doi.org/10.1145/3663548.3675659

[6] Katherine H. Allen, Audrey K. Balaska, Reuben M. Aronson, Chris Rogers, and Elaine Schaertl Short. 2023. Barriers and Benefits: The Path to Accessible Makerspaces. In *The 25th International ACM SIGACCESS Conference on Computers and Accessibility*. ACM, New York NY USA, 1–14. https://doi.org/10.1145/3597638.3608414

[7] Christine Ashby. 2010. The trouble with normal: The struggle for meaningful access for middle school students with developmental disability labels. *Disability & Society* 25, 3 (2010), 345–358.

[8] Christine Ashby, Eunyoung Jung, Casey Woodfield, Katherine Vroman, and Fernanda Orsati. 2015. 'Wishing to go it alone': the complicated interplay of independence, interdependence and agency. *Disability & Society* 30, 10 (2015), 1474–1489.

[9] Saminda Sundeepa Balasuriya, Laurianne Sitbon, and Margot Brereton. 2022. A Support Worker Perspective on Use of New Technologies by People with Intellectual Disabilities. *ACM Transactions on Accessible Computing* 15, 3 (Sept. 2022), 1–21. https://doi.org/10.1145/3523058

[10] Mark S. Baldwin, Sen H. Hirano, Jennifer Mankoff, and Gillian R. Hayes. 2019. Design in the Public Square: Supporting Assistive Technology Design Through Public Mixed-Ability Cooperation. *Proceedings of the ACM on Human-Computer Interaction* 3, CSCW (Nov. 2019), 1–22. https://doi.org/10.1145/3359257

[11] Giulia Barbareschi, Tarika Kumar, Christopher Changmok Kim, George Chernyshov, and Kai Kunze. 2024. "Speech is Silver, Silence is Golden " Analyzing Micro-communication Strategies between Visually Impaired Runners and their Guides. In *Proceedings of the CHI Conference on Human Factors in Computing Systems*. ACM, Honolulu HI USA, 1–16. https://doi.org/10.1145/3613904.3642388

[12] Giulia Barbareschi, Ben Oldfrey, Long Xin, Grace Nyachomba Magomere, Wycliffe Ambeyi Wetende, Carol Wanjira, Joyce Olenja, Victoria Austin, and Catherine Holloway. 2020. Bridging the Divide: Exploring the use of digital and physical technology to aid mobility impaired people living in an informal settlement. In *Proceedings of the 22nd International ACM SIGACCESS Conference on Computers and Accessibility*. ACM, Virtual Event Greece, 1–13. https://doi.org/10.1145/3373625.3417021

[13] Colin Barnes and Geof Mercer. 2006. Independent futures. Creating user-led disability services in a disabling society.

[14] 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*. ACM, Galway Ireland, 161–173. https://doi.org/10.1145/3234695.3236348

[15] Cynthia L. Bennett, Daniela K. Rosner, and Alex S. Taylor. 2020. The Care Work of Access. In *Proceedings of the 2020 CHI Conference on Human Factors in Computing Systems*. ACM, Honolulu HI USA, 1–15. https://doi.org/10.1145/3313831.3376568

[16] Patricia Berne, Aurora Levins Morales, David Langstaff, and Sins Invalid. 2018. Ten principles of disability justice. *WSQ: Women's Studies Quarterly* 46, 1 (2018), 227–230.

[17] Patricia Berne, Aurora Levins Morales, David Langstaff, and Sins Invalid. 2018. Ten principles of disability justice. *WSQ: Women's Studies Quarterly* 46, 1 (2018), 227–230.

[18] Filip Bircanin, Margot Brereton, Laurianne Sitbon, Bernd Ploderer, Andrew Azaabanye Bayor, and Stewart Koplick. 2021. Including Adults with Severe Intellectual Disabilities in Co-Design through Active Support. In *Proceedings of the 2021 CHI Conference on Human Factors in Computing Systems*. ACM, Yokohama Japan, 1–12. https://doi.org/10.1145/3411764.3445057

[19] Katya Borgos-Rodriguez, Maitraye Das, and Anne Marie Piper. 2021. Melodie: A Design Inquiry into Accessible Crafting through Audio-enhanced Weaving. *ACM Transactions on Accessible Computing* 14, 1 (March 2021), 1–30. https://doi.org/10.1145/3444699

[20] Valeria Borsotti, Andrew Begel, and Pernille Bjørn. 2024. Neurodiversity and the Accessible University: Exploring Organizational Barriers, Access Labor and Opportunities for Change. *Proceedings of the ACM on Human-Computer Interaction* 8, CSCW1 (April 2024), 1–27. https://doi.org/10.1145/3641011

[21] Inga Bostad and Halvor Hanisch. 2016. Freedom and disability rights: Dependence, independence, and interdependence. *Metaphilosophy* 47, 3 (2016), 371–384.

[22] Virginia Braun and Victoria Clarke. 2019. Reflecting on reflexive thematic analysis. *Qualitative research in sport, exercise and health* 11, 4 (2019), 589–597.

[23] Robin N. Brewer and Vaishnav Kameswaran. 2018. Understanding the Power of Control in Autonomous Vehicles for People with Vision Impairment. In *Proceedings of the 20th International ACM SIGACCESS Conference on Computers and Accessibility*. ACM, Galway Ireland, 185–197. https://doi.org/10.1145/3234695.3236347

[24] Emeline Brulé, Oussama Metatla, Katta Spiel, Ahmed Kharrufa, and Charlotte Robinson. 2019. Evaluating Technologies with and for Disabled Children. In *Extended Abstracts of the 2019 CHI Conference on Human Factors in Computing Systems*. ACM, Glasgow Scotland Uk, 1–6. https://doi.org/10.1145/3290607.3311757

[25] Sabrina Burtscher and Kathrin Gerling. 2024. Neurodivergence and work in human-computer interaction: Mapping the research landscape. In *Proceedings of the 3rd Annual Meeting of the Symposium on Human-Computer Interaction for Work*. 1–14.

[26] Rafael A Calvo, Dorian Peters, Daniel Johnson, and Yvonne Rogers. 2014. Autonomy in technology design. In *CHI'14 Extended Abstracts on Human Factors in Computing Systems*. 37–40.

[27] Cathy Cassell and Gillian Symon. 2012. Qualitative organizational research: core methods and current challenges. (2012).

[28] Cameron Tyler Cassidy, Isabela Figueira, Sohyeon Park, Jin Seo Kim, Emory James Edwards, and Stacy Marie Branham. 2024. Cuddling Up With a Print-Braille Book: How Intimacy and Access Shape Parents' Reading Practices with Children. In *Proceedings of the 2024 CHI Conference on Human Factors in Computing Systems*. 1–15.

[29] Joye Wai Peng Chan and Jenny OL Phillips. 2023. Factors influencing disability inclusion practice on social media. In *Proceedings of the 2023 14th International Conference on E-business, Management and Economics*. 131–139.

[30] James I Charlton. 1998. *Nothing about us without us: Disability oppression and empowerment*. Univ of California Press.

[31] Andreas Chatzidakis, Jamie Hakim, Jo Litter, Catherine Rottenberg, Care Collective, et al. 2020. *The care manifesto: The politics of interdependence*. Verso Books.

[32] Karen Christensen. 2009. In (ter) dependent lives. *Scandinavian Journal of Disability Research* 11, 2 (2009), 117–130.

[33] Andrew Jason Cohen. 2000. Does communitarianism require individual independence? *The journal of ethics* 4, 3 (2000), 283–304.

[34] Kirk Andrew Crawford, Katta Spiel, and Foad Hamidi. 2023. Complex Dynamics: Disability, Assistive Technology, and the LGBTQIA+ Community Center Experience in the United States. In *The 25th International ACM SIGACCESS Conference on Computers and Accessibility*. ACM, New York NY USA, 1–15. https://doi.org/10.1145/3597638.3608401

[35] Elaine Czech, Paul Marshall, and Oussama Metatla. 2022. "Just like meeting in person"-Examination of interdependencies in dementia-friendly virtual activities.. In *Proceedings of the 24th International ACM SIGACCESS Conference on*

Computers and Accessibility. 1–15.

[36] Peter Dalsgaard and Christian Dindler. 2014. Between theory and practice: bridging concepts in HCI research. In *Proceedings of the SIGCHI conference on Human Factors in Computing Systems*. 1635–1644.

[37] 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 (Nov. 2019), 1–26. https://doi.org/10.1145/3359293

[38] Maitraye Das, Darren Gergle, and Anne Marie Piper. 2023. Simphony: Enhancing Accessible Pattern Design Practices among Blind Weavers. In *Proceedings of the 2023 CHI Conference on Human Factors in Computing Systems*. ACM, Hamburg Germany, 1–19. https://doi.org/10.1145/3544548.3581047

[39] Aashaka Desai, Jennifer Mankoff, and Richard E. Ladner. 2023. Understanding and Enhancing The Role of Speechreading in Online d/DHH Communication Accessibility. In *Proceedings of the 2023 CHI Conference on Human Factors in Computing Systems*. ACM, Hamburg Germany, 1–17. https://doi.org/10.1145/3544548.3580810

[40] Peter Dorrington, Christopher Wilkinson, Lorna Tasker, and Andrew Walters. 2016. User-centered design method for the design of assistive switch devices to improve user experience, accessibility, and independence. *Journal of Usability Studies* 11, 2 (2016).

[41] Emani Dotch, Avery Mavrovounioti, Weijie Du, Elizabeth Ankrah, Jazette Johnson, Aehong Min, and Gillian R Hayes. 2024. Accessibility through Awareness of Noise Sensitivity Management and Regulation Practices. In *The 26th International ACM SIGACCESS Conference on Computers and Accessibility*. ACM, St. John's NL Canada, 1–12. https://doi.org/10.1145/3663548.3675630

[42] Claire Edwards and Cliona Loughnane. 2024. 'Plenty of Disabled People Care': Revealing Reciprocity and Interdependence in Disabled People's Everyday Caregiving Practices. *Scandinavian Journal of Disability Research* 26, 1 (2024).

[43] Carolyn Ells. 2001. Lessons about autonomy from the experience of disability. *Social theory and practice* 27, 4 (2001), 599–615.

[44] Mustafa Emirbayer and Ann Mische. 1998. What is agency? *American journal of sociology* 103, 4 (1998), 962–1023.

[45] Michael Fine and Caroline Glendinning. 2005. Dependence, independence or inter-dependence? Revisiting the concepts of 'care'and 'dependency'. *Ageing & society* 25, 4 (2005), 601–621.

[46] Nancy Fraser and Linda Gordon. 1994. A genealogy of dependency: Tracing a keyword of the US welfare state. *Signs: Journal of women in culture and society* 19, 2 (1994), 309–336.

[47] Susanne Frennert, Johanna Persson, and Sarah Skavron. 2024. A Critical Narrative Review of Assistive Robotics and Call for a Systems and User-Centered Approaches to Enhance Quality of Life of Individuals with Disabilities. In *Adjunct Proceedings of the 2024 Nordic Conference on Human-Computer Interaction*. ACM, Uppsala Sweden, 1–11. https://doi.org/10.1145/3677045.3685495

[48] Felix Fussenegger and Katta Spiel. 2022. Depending on Independence An Autoethnographic Account of Daily Use of Assistive Technologies. In *Proceedings of the 24th International ACM SIGACCESS Conference on Computers and Accessibility*. ACM, Athens Greece, 1–6. https://doi.org/10.1145/3517428.3551354

[49] Vinitha Gadiraju, Olwyn Doyle, and Shaun Kane. 2021. Exploring Technology Design for Students with Vision Impairment in the Classroom and Remotely. In *Proceedings of the 2021 CHI Conference on Human Factors in Computing Systems*. ACM, Yokohama Japan, 1–13. https://doi.org/10.1145/3411764.3445755

[50] Kathrin Gerling and Katta Spiel. 2021. A Critical Examination of Virtual Reality Technology in the Context of the Minority Body. In *Proceedings of the 2021 CHI Conference on Human Factors in Computing Systems*. ACM, Yokohama Japan, 1–14. https://doi.org/10.1145/3411764.3445196

[51] Carol Gilligan. 1993. *In a different voice: Psychological theory and women's development*. Harvard university press.

[52] David Gonçalves, André Rodrigues, and Tiago Guerreiro. 2020. Playing with Others: Depicting Multiplayer Gaming Experiences of People with Visual Impairments. In *Proceedings of the 22nd International ACM SIGACCESS Conference on Computers and Accessibility (ASSETS '20)*. Association for Computing Machinery, Athens, Greece (Virtual), 1–12. https://doi.org/10.1145/3373625.3418304

[53] Laura Gonzales. 2019. Designing for intersectional, interdependent accessibility: a case study of multilingual technical content creation. *Communication Design Quarterly* 6, 4 (Jan. 2019), 35–45. https://doi.org/10.1145/3309589.3309593

[54] David Gonçalves, André Rodrigues, Mike L. Richardson, Alexandra A. De Sousa, Michael J. Proulx, and Tiago Guerreiro. 2021. Exploring Asymmetric Roles in Mixed-Ability Gaming. In *Proceedings of the 2021 CHI Conference on Human Factors in Computing Systems*. ACM, Yokohama Japan, 1–14. https://doi.org/10.1145/3411764.3445494

[55] Mary Griffiths. 1998. Disability and the City: International Perspectives. *Housing Studies* 13, 4 (1998), 589.

[56] Josh Guberman. 2023. #ActuallyAutistic Twitter as a Site for Epistemic Resistance and Crip Futurity. *ACM Transactions on Computer-Human Interaction* 30, 3 (June 2023), 1–34. https://doi.org/10.1145/3569891

[57] Florian Güldenpfennig, Peter Mayer, Paul Panek, and Geraldine Fitzpatrick. 2019. An autonomy-perspective on the design of assistive technology experiences of people with multiple sclerosis. In *Proceedings of the 2019 CHI Conference on Human Factors in Computing Systems*. 1–14.

[58] Hannah Gurr, Louise Oliver, Orlanda Harvey, Madhusudan Subedi, and Edwin van Teijlingen. 2024. The importance of positionality for qualitative researchers. *Dhaulagiri Journal of Sociology and Anthropology* 18, 01 (2024), 48–54.

[59] Foad Hamidi, Tsion Kidane, Patrick Mbullo Owuor, Michaela Hynie, and Melanie Baljko. 2023. Supporting Social Inclusion with DIY-ATs: Perspectives of Kenyan Caregivers of Children with Cognitive Disabilities. *ACM Transactions on Accessible Computing* 16, 3 (Sept. 2023), 1–27. https://doi.org/10.1145/3616378

[60] Aimi Hamraie. 2017. *Building access: Universal design and the politics of disability*. U of Minnesota Press.

[61] Aimi Hamraie. 2017. Designing collective access: A feminist disability theory of universal design. In *Disability, Space, Architecture: A Reader*. Routledge, 78–297.

[62] Aimi Hamraie, Kelly Fritsch, Gabriele Stera, Lucie Camous, Lucas Fritz, and Chosson Etienne. 2025. Crip technoscience manifesto. (2025).

[63] Georg Wilhelm Fredrich Hegel. 1991. *Hegel: Elements of the philosophy of right*. Cambridge University Press.

[64] Erin Higgins, Marie E Sakowicz, and Foad Hamidi. 2024. An Ecosystem of Support: A U.S. State Government-Supported DIY-AT Program for Residents with Disabilities. In *The 26th International ACM SIGACCESS Conference on Computers and Accessibility*. ACM, St. John's NL Canada, 1–16. https://doi.org/10.1145/3663548.3675667

[65] Megan Hofmann, Devva Kasnitz, Jennifer Mankoff, and Cynthia L Bennett. 2020. Living Disability Theory: Reflections on Access, Research, and Design. In *Proceedings of the 22nd International ACM SIGACCESS Conference on Computers and Accessibility*. ACM, Virtual Event Greece, 1–13. https://doi.org/10.1145/3373625.3416996

[66] Megan Hofmann, Devva Kasnitz, Jennifer Mankoff, and Cynthia L Bennett. 2020. Living disability theory: Reflections on access, research, and design. In *The 22nd International ACM SIGACCESS Conference on Computers and Accessibility*. 1–13.

[67] Jeremy Zhengqi Huang, Hriday Chhabria, and Dhruv Jain. 2023. "Not There Yet": Feasibility and Challenges of Mobile Sound Recognition to Support Deaf and Hard-of-Hearing People. In *Proceedings of the 25th International ACM SIGACCESS Conference on Computers and Accessibility*. 1–14.

[68] Rob Imrie. 1997. Rethinking the relationships between disability, rehabilitation, and society. *Disability and rehabilitation* 19, 7 (1997), 263–271.

[69] Sins Invalid. 2017. Skin, tooth, and bone–the basis of movement is our people: a disability justice primer.

[70] Sylvia Janicki, Nassim Parvin, and Noura Howell. 2024. Crip Reflections on Designing with Plants: Intersecting Disability Theory, Chronic Illness, and More-than-Human Design*. In *Designing Interactive Systems Conference*. ACM, IT University of Copenhagen Denmark, 1044–1058. https://doi.org/10.1145/3643834.3661509

[71] Lucy Jiang, Mahika Phutane, and Shiri Azenkot. 2023. Beyond Audio Description: Exploring 360° Video Accessibility with Blind and Low Vision Users Through Collaborative Creation. In *The 25th International ACM SIGACCESS Conference on Computers and Accessibility*. ACM, New York NY USA, 1–17. https://doi.org/10.1145/3597638.3608381

[72] Julie Jung. 2014. Interdependency as an ethic for accessible intellectual publics. *Reflections* 14, 1 (2014).

[73] Alison Kafer. 2005. *Accessible futures? Disability, feminist and queer theory, and progressive politics*. The Claremont Graduate University.

[74] Vaishnav Kameswaran, Jatin Gupta, Joyojeet Pal, Sile O'Modhrain, Tiffany C. Veinot, Robin Brewer, Aakanksha Parameshwar, Vidhya Y, and Jacki O'Neill. 2018. 'We can go anywhere': Understanding Independence through a Case Study of Ride-hailing Use by People with Visual Impairments in metropolitan India. *Proceedings of the ACM on Human-Computer Interaction* 2, CSCW (Nov. 2018), 1–24. https://doi.org/10.1145/3274354

[75] Vaishnav Kameswaran, Vidhya Y, and Megh Marathe. 2023. Advocacy as Access Work: How People with Visual Impairments Gain Access to Digital Banking in India. *Proceedings of the ACM on Human-Computer Interaction* 7, CSCW1 (April 2023), 1–23. https://doi.org/10.1145/3579596

[76] Shaun K. Kane, Anhong Guo, and Meredith Ringel Morris. 2020. Sense and Accessibility: Understanding People with Physical Disabilities' Experiences with Sensing Systems. In *Proceedings of the 22nd International ACM SIGACCESS Conference on Computers and Accessibility*. ACM, Virtual Event Greece, 1–14. https://doi.org/10.1145/3373625.3416990

[77] Eva Feder Kittay. 2011. The ethics of care, dependence, and disability. *Ratio juris* 24, 1 (2011), 49–58.

[78] Eva Feder Kittay. 2015. Centering justice on dependency and recovering freedom. *Hypatia* 30, 1 (2015), 285–291.

[79] Lindy Le. 2024. "I Am Human, Just Like You": What Intersectional, Neurodivergent Lived Experiences Bring to Accessibility Research. In *The 26th International ACM SIGACCESS Conference on Computers and Accessibility*. ACM, St. John's NL Canada, 1–20. https://doi.org/10.1145/3663548.3675651

[80] Sooyeon Lee, Madison Reddie, and John M Carroll. 2021. Designing for independence for people with visual impairments. *Proceedings of the ACM on Human-Computer Interaction* 5, CSCW1 (2021), 1–19.

[81] Brittany Lewis, Tina-Marie Ranalli, Alexandra Gourley, Piriyankan Kirupaharan, and Krishna Venkatasubramanian. 2023. "I... caught a person casing my house... and scared him off:" The Use of Security-Focused Smart Home Devices by People with Disabilities. In *Proceedings of the 2023 CHI Conference on Human Factors in Computing Systems*. ACM, Hamburg Germany, 1–16. https://doi.org/10.1145/3544548.3581007

[82] Brittany Lewis and Krishna Venkatasubramanian. 2021. "I...Got my Nose-Print. But it Wasn't Accurate": How People with Upper Extremity Impairment Authenticate on their Personal Computing Devices. In *Proceedings of the 2021 CHI Conference on Human Factors in Computing Systems*. ACM, Yokohama Japan, 1–14. https://doi.org/10.1145/3411764.3445070

[83] Leon Lu, Karen Anne Cochrane, Jin Kang, and Audrey Girouard. 2023. "Why are there so many steps?": Improving Access to Blind and Low Vision Music Learning through Personal Adaptations and Future Design Ideas. *ACM Transactions on Accessible Computing* 16, 3 (Sept. 2023), 1–20. https://doi.org/10.1145/3615663

[84] Alasdair MacIntyre. 1999. *Dependent rational animals: Why human beings need the virtues*. Open Court.

[85] Kelly Mack, Maitraye Das, Dhruv Jain, Danielle Bragg, John Tang, Andrew Begel, Erin Beneteau, Josh Urban Davis, Abraham Glasser, Joon Sung Park, et al. 2021. Mixed Abilities and Varied Experiences: a group autoethnography of a virtual summer internship. In *The 23rd International ACM SIGACCESS Conference on Computers and Accessibility*. 1–13.

[86] Kelly Mack, Maitraye Das, Dhruv Jain, Danielle Bragg, John Tang, Andrew Begel, Erin Beneteau, Josh Urban Davis, Abraham Glasser, Joon Sung Park, and Venkatesh Potluri. 2021. Mixed Abilities and Varied Experiences: a group autoethnography of a virtual summer internship. In *Proceedings of the 23rd International ACM SIGACCESS Conference on Computers and Accessibility*. ACM, Virtual Event USA, 1–13. https://doi.org/10.1145/3441852.3471199

[87] Kelly Mack, Emma McDonnell, Dhruv Jain, Lucy Lu Wang, Jon E. Froehlich, and Leah Findlater. 2021. What do we mean by "accessibility research"? A literature survey of accessibility papers in CHI and ASSETS from 1994 to 2019. In *Proceedings of the 2021 CHI Conference on Human Factors in Computing Systems*. 1–18.

[88] Kelly Mack, Emma McDonnell, Venkatesh Potluri, Maggie Xu, Jailyn Zabala, Jeffrey Bigham, Jennifer Mankoff, and Cynthia Bennett. 2022. Anticipate and Adjust: Cultivating Access in Human-Centered Methods. In *CHI Conference on Human Factors in Computing Systems*. ACM, New Orleans LA USA, 1–18. https://doi.org/10.1145/3491102.3501882

[89] 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.

[90] Joy Ming, Sharon Heung, Shiri Azenkot, and Aditya Vashistha. 2021. Accept or Address? Researchers' Perspectives on Response Bias in Accessibility Research. In *Proceedings of the 23rd International ACM SIGACCESS Conference on Computers and Accessibility*. ACM, Virtual Event USA, 1–13. https://doi.org/10.1145/3441852.3471216

[91] Mia Mingus. 2011. Changing the framework: Disability justice. *Leaving evidence* 12 (2011).

[92] Edward M Morgan. 1987. The Imagery and Meaning of Self-Determination. *NYUJ Int'l L. & Pol.* 20 (1987), 355.

[93] Martez Mott, John Tang, Shaun Kane, Edward Cutrell, and Meredith Ringel Morris. 2020. "I just went into it assuming that I wouldn't be able to have the full experience": Understanding the Accessibility of Virtual Reality for People with Limited Mobility. In *Proceedings of the 22nd International ACM SIGACCESS Conference on Computers and Accessibility*. ACM, Virtual Event Greece, 1–13. https://doi.org/10.1145/3373625.3416998

[94] Jennifer Nedelsky. 2011. *Law's relations: A relational theory of self, autonomy, and law*. OUP USA.

[95] Akemi Nishida. 2022. *Just care: Messy entanglements of disability, dependency, and desire*. Temple University Press.

[96] Mike Oliver. 1989. Disability and dependency: A creation of industrial societies. *Disability and dependency* (1989), 6–22.

[97] Elsa M Orellano-Colón, Stephanie Harrison-Cruz, Edith López-Lugo, Stephanie Ramos-Peraza, Alexandra Meléndez-Ortiz, Johan Ortiz-Torres, and Janice Rodríguez-Marrero. 2020. Assistive technology self-management intervention for older Hispanics: a feasibility study. *Disability and Rehabilitation: Assistive Technology* 15, 8 (2020), 862–870.

[98] Matthew J Page, Joanne E McKenzie, Patrick M Bossuyt, Isabelle Boutron, Tammy C Hoffmann, Cynthia D Mulrow, Larissa Shamseer, Jennifer M Tetzlaff, Elie A Akl, Sue E Brennan, et al. 2021. The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. *bmj* 372 (2021).

[99] Alexander S.W. Parent. 2024. Crip Material Exploration as an Assistive Technology Research Framework: Situating Interdependence in Empowered Disabled Making. In *The 26th International ACM SIGACCESS Conference on Computers and Accessibility*. ACM, St. John's NL Canada, 1–5. https://doi.org/10.1145/3663548.3688508

[100] William Christopher Payne, Eric Xu, Izabella Rodrigues, Matthew Kaney, Madeline Mau, and Amy Hurst. 2024. "Different and Boundary-Pushing:" How Blind and Low Vision Youth Live Code Together. In *Creativity and Cognition*. ACM, Chicago IL USA, 627–637. https://doi.org/10.1145/3635636.3656200

[101] Fred Pelka. 2012. *What we have done: An oral history of the disability rights movement*. Univ of Massachusetts Press.

[102] Mahika Phutane, Crescentia Jung, Niu Chen, and Shiri Azenkot. 2023. Speaking with My Screen Reader: Using Audio Fictions to Explore Conversational Access to Interfaces. In *The 25th International ACM SIGACCESS Conference on Computers and Accessibility*. ACM, New York NY USA, 1–18. https://doi.org/10.1145/3597638.3608404

[103] Leah Lakshmi Piepzna-Samarasinha. 2018. *Care work: Dreaming disability justice*. arsenal pulp press Vancouver.

[104] Venkatesh Potluri, Maulishree Pandey, Andrew Begel, Michael Barnett, and Scott Reitherman. 2022. CodeWalk: Facilitating Shared Awareness in Mixed-Ability Collaborative Software Development. In *Proceedings of the 24th International ACM SIGACCESS Conference on Computers and Accessibility*. ACM, Athens Greece, 1–16. https://doi.org/10.1145/3517428.3544812

[105] Solveig Magnus Reindal. 1999. Independence, dependence, interdependence: Some reflections on the subject and personal autonomy. *Disability & Society* 14, 3 (1999), 353–367.

[106] Kathryn E. Ringland, Elin Carstensdottir, Matthew Tung, Bhavani Seetharaman, Tessa Eagle, Leya Breanna Baltaxe-Admony, and Kevin Weatherwax. 2024. Together in the Mikrokosmos: Exploring Disabled Embodied Experiences in Designed Sociotechnical Worlds. *Proceedings of the ACM on Human-Computer Interaction* 8, CSCW2 (Nov. 2024), 1–39. https://doi.org/10.1145/3686974

[107] Filipa Rocha, Filipa Correia, Isabel Neto, Ana Cristina Pires, João Guerreiro, Tiago Guerreiro, and Hugo Nicolau. 2023. Coding Together: On Co-located and Remote Collaboration between Children with Mixed-Visual Abilities. In *Proceedings of the 2023 CHI Conference on Human Factors in Computing Systems*. ACM, Hamburg Germany, 1–14. https://doi.org/10.1145/3544548.3581261

[108] Janice Sandjojo, Winifred A Gebhardt, Aglaia MEE Zedlitz, Joop Hoekman, Jeanet A den Haan, and Andrea WM Evers. 2019. Promoting independence of people with intellectual disabilities: A focus group study perspectives from people with intellectual disabilities, legal representatives, and support staff. *Journal of Policy and Practice in Intellectual Disabilities* 16, 1 (2019), 37–52.

[109] Douglas Schuler and Aki Namioka. 1993. *Participatory design: Principles and practices*. CRC press.

[110] Jonathan A Schulz, Lyndsie M Koon, Lillie Greiman, Hayley A Steinlage, and Jean P Hall. 2023. Understanding successful transition to independent living: A qualitative study of young adults with disabilities. *Children and youth services review* 145 (2023), 106691.

[111] Phoebe Sengers, John McCarthy, and Paul Dourish. 2006. Reflective HCI: articulating an agenda for critical practice. In *CHI'06 extended abstracts on Human factors in computing systems*. 1683–1686.

[112] Tom Shakespeare. 2006. *Disability rights and wrongs*. Routledge.

[113] Tom Shakespeare et al. 2006. The social model of disability. *The disability studies reader* 2 (2006), 197–204.

[114] Pranali Uttam Shinde and Aqueasha Martin-Hammond. 2024. Designing to Support Blind and Visually Impaired Older Adults in Managing the Invisible Labor of Social Participation: Opportunities and Challenges. In *Proceedings of the CHI Conference on Human Factors in Computing Systems*. ACM, Honolulu HI USA, 1–14. https://doi.org/10.1145/3613904.3642203

[115] Kristen Shinohara and Jacob O Wobbrock. 2016. Self-conscious or self-confident? A diary study conceptualizing the social accessibility of assistive technology. *ACM Transactions on Accessible Computing (TACCESS)* 8, 2 (2016), 1–31.

[116] Alessandro Soro, Margot Brereton, Laurianne Sitbon, Aloha Hufana Ambe, Jennyfer Lawrence Taylor, and Cara Wilson. 2019. Beyond Independence: Enabling Richer Participation through Relational Technologies. In *Proceedings of the 31st Australian Conference on Human-Computer-Interaction*. ACM, Fremantle WA Australia, 149–160. https://doi.org/10.1145/3369457.3369470

[117] Laura South, Caglar Yildirim, Amy Pavel, and Michelle A. Borkin. 2024. Barriers to Photosensitive Accessibility in Virtual Reality. In *Proceedings of the CHI Conference on Human Factors in Computing Systems*. ACM, Honolulu HI USA, 1–13. https://doi.org/10.1145/3613904.3642635

[118] Katta Spiel, Eva Hornecker, Rua Mae Williams, and Judith Good. 2022. ADHD and Technology Research – Investigated by Neurodivergent Readers. In *CHI Conference on Human Factors in Computing Systems*. ACM, New Orleans LA USA, 1–21. https://doi.org/10.1145/3491102.3517592

[119] Kevin M. Storer and Stacy M. Branham. 2019. "That's the Way Sighted People Do It": What Blind Parents Can Teach Technology Designers About Co-Reading with Children. In *Proceedings of the 2019 on Designing Interactive Systems Conference*. ACM, San Diego CA USA, 385–398. https://doi.org/10.1145/3322276.3322374

[120] Lukas Strobel and Kathrin Gerling. 2025. HCI, Disability, and Sport: A Literature Review. *ACM Transactions on Computer-Human Interaction* (2025).

[121] Cella M. Sum, Franchesca Spektor, Rahaf Alharbi, Leya Breanna Baltaxe-Admony, Erika Devine, Hazel Anneke Dixon, Jared Duval, Tessa Eagle,

Frank Elavsky, Kim Fernandes, Leandro S. Guedes, Serena Hillman, Vaishnav Kameswaran, Lynn Kirabo, Tamanna Motahar, Kathryn E. Ringland, Anastasia Schaadhardt, Laura Scheepmaker, and Alicia Williamson. 2024. Challenging Ableism: A Critical Turn Toward Disability Justice in HCI. *XRDS: Crossroads, The ACM Magazine for Students* 30, 4 (June 2024), 50–55. https://doi.org/10.1145/3665602

[122] Yuanyang Teng, Connor Courtien, David Angel Rios, Yves M Tseng, Jacqueline Gibson, Maryam Aziz, Avery Reyna, Rajan Vaish, and Brian A. Smith. 2024. Help Supporters: Exploring the Design Space of Assistive Technologies to Support Face-to-Face Help Between Blind and Sighted Strangers. In *Proceedings of the CHI Conference on Human Factors in Computing Systems*. ACM, Honolulu HI USA, 1–24. https://doi.org/10.1145/3613904.3642816

[123] April Tyack and Elisa D Mekler. 2020. Self-determination theory in HCI games research: Current uses and open questions. In *Proceedings of the 2020 CHI conference on human factors in computing systems*. 1–22.

[124] April Tyack and Elisa D Mekler. 2024. Self-determination theory and HCI games research: Unfulfilled promises and unquestioned paradigms. *ACM Transactions on Computer-Human Interaction* 31, 3 (2024), 1–74.

[125] Bert Vandenberghe, Kathrin Gerling, Luc Geurts, and Vero Vanden Abeele. 2022. Maker Technology and the Promise of Empowerment in a Flemish School for Disabled Children. In *CHI Conference on Human Factors in Computing Systems*. ACM, New Orleans LA USA, 1–18. https://doi.org/10.1145/3491102.3501853

[126] Krishna Venkatasubramanian, Jeanine L. M. Skorinko, Mariam Kobeissi, Brittany Lewis, Nicole Jutras, Pauline Bosma, John Mullaly, Brian Kelly, Deborah Lloyd, Mariah Freark, and Nancy A. Alterio. 2021. Exploring A Reporting Tool to Empower Individuals with Intellectual and Developmental Disabilities to Self-Report Abuse. In *Proceedings of the 2021 CHI Conference on Human Factors in Computing Systems*. ACM, Yokohama Japan, 1–13. https://doi.org/10.1145/3411764.3445150

[127] Beatrice Vincenzi, Alex S. Taylor, and Simone Stumpf. 2021. Interdependence in Action: People with Visual Impairments and their Guides Co-constituting Common Spaces. *Proceedings of the ACM on Human-Computer Interaction* 5, CSCW1 (April 2021), 1–33. https://doi.org/10.1145/3449143

[128] Glen W White, Jamie Lloyd Simpson, Chiaki Gonda, Craig Ravesloot, and Zach Coble. 2010. Moving from independence to interdependence: A conceptual model for better understanding community participation of centers for independent living consumers. *Journal of Disability Policy Studies* 20, 4 (2010), 233–240.

[129] Rua M Williams. 2025. Disability Theory in HCI: Research Reform through Community, Learning, and Play. In *Proceedings of the 2025 Conference on Research on Equitable and Sustained Participation in Engineering, Computing, and Technology*. 160–166.

[130] Rua Mae Williams, Louanne Boyd, and Juan E Gilbert. 2023. Counterventions: a reparative reflection on interventionist HCI. In *Proceedings of the 2023 CHI Conference on Human Factors in Computing Systems*. 1–11.

[131] Eileen Wolkstein and JR Harding. 2010. The rehabilitation movement. *Journal of Jewish Communal Service* 85, 2/3 (2010), 310–319.

[132] Yiying Wu, Xianghua(Sharon) Ding, Xuelan Dai, Peng Zhang, Tun Lu, and Ning Gu. 2022. Alignment Work for Urban Accessibility: A Study of How Wheelchair Users Travel in Urban Spaces. *Proceedings of the ACM on Human-Computer Interaction* 6, CSCW2 (Nov. 2022), 1–22. https://doi.org/10.1145/3555165

[133] Lan Xiao, Maryam Bandukda, Katrin Angerbauer, Weiyue Lin, Tigmanshu Bhatnagar, Michael Sedlmair, and Catherine Holloway. 2024. A Systematic Review of Ability-diverse Collaboration through Ability-based Lens in HCI. In *Proceedings of the CHI Conference on Human Factors in Computing Systems (CHI '24)*. ACM, Article 961, 21 pages. https://doi.org/10.1145/3613904.3641930

[134] Zeynep Yildiz, Caroline Karmann, and Kathrin Gerling. 2024. Not a "Typical Expat": An Autoethnographic Account on Accessible Relocation. In *The 26th International ACM SIGACCESS Conference on Computers and Accessibility*. ACM, St. John's NL Canada, 1–6. https://doi.org/10.1145/3663548.3688546

[135] Zeynep Yildiz and Ozge Subasi. 2023. Virtual Collaboration Tools for Mixed-Ability Workspaces: A Cross Disability Solidarity Case from Turkey. In *Proceedings of the 2023 CHI Conference on Human Factors in Computing Systems*. ACM, Hamburg Germany, 1–11. https://doi.org/10.1145/3544548.3580937

[136] Matteo Zallio and Takumi Ohashi. 2022. The evolution of assistive technology: a literature review of technology developments and applications. *arXiv preprint arXiv:2201.07152* (2022).

[137] Mireya Zapata, Kevin Valencia-Aragón, and Carlos Ramos-Galarza. 2023. Experimental evaluation of Emkey: an assistive technology for people with upper limb disabilities. *Sensors* 23, 8 (2023), 4049.

[138] Aziz N Zeidieh. 2024. "Seven Stitches Later": A Technologically Interdependent Travel Experience From The Perspective Of A Visually Impaired Individual. In *The 26th International ACM SIGACCESS Conference on Computers and Accessibility*. ACM, St. John's NL Canada, 1–6. https://doi.org/10.1145/3663548.3688544

A APPENDIX: FULL LIST OF RELATED CONCEPTS THAT APPEARED AT LEAST IN 2 PAPERS IN OUR CORPUS

Related Concepts	# of Papers
Independence	26
Collaboration and Cooperation	19
Care	13
Autonomy	13
Agency and Mutual Agency	8
Empowerment	5
Mixed-Ability	5
Dependence	4
Intersectionality	3
Collective Access	3
Trust	2
Power Dynamics	2
Relational Technology	2

Table 3: Frequently used related concepts and the number of papers in which they appear.