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Internet activities and social and community participation among young people with learning disabilities

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Abstract

Background: A digital lag has been reported on access to the internet and performing internet activities for young people with learning disabilities in everyday life.

Aim: The aim of this study is to explore environmental opportunities and challenges when performing internet activities and how internet use influences social and community participation for young people with learning disabilities from the perspectives of the target group.

Methods: An inductive design was applied, with focused observations and follow-up interviews of 15 internet-using young persons with learning disabilities in their everyday settings. The data was analysed interpretatively using open coding.

Findings: The environment offered both opportunities and challenges in terms of the design of digital devices and digital support. Support from peers was often preferred. All participants performed internet activities related to social participation although not all used social media. Searching for information was performed, however, finding the information or understanding it was challenging and led to restricted participation in the community.

Conclusion: More examples of internet use positively influencing social participation were found, contrary to community participation. It is indicated that concrete learning situations when using the internet for social participation were more adapted to the participants and promoted this type of participation, contrary to situations of internet use influencing community participation.

KEYWORDS
adaptative methods, digital divide, digital inclusion, intellectual disability, technology

Accessible summary

- Doing activities online is part of everyday life.
- We explored opportunities and challenges in the environment when performing internet activities and how internet use influence participation for young people with learning disabilities.

- We observed and interviewed people in their everyday settings of school or activity service and home about their internet use.
- Young people prefer digital support from peers rather than staff when using the internet.
- People do internet activities to have contact with others, but it was a challenge to find and understand information online and to take part in activities in the community.

1 | INTRODUCTION

Using the internet is integrated in performing everyday activities for citizens in contemporary society (Statista, 2022). Internet research from Europe on young people without disabilities using the internet implies a shift taking place from the mere use of the internet in everyday life to adolescents living their everyday life online, mediated by the internet (Livingstone et al., 2018). However, the extent of making use of the internet and how it transfers into and mediates everyday life for young people with learning disabilities has not been examined according to a recent literature review by Glencross et al. (2021). Their review indicates that studies most often show use of the internet for social networking and entertainment and focus on the risks with internet use, rather than the benefits for people with learning disabilities (Glencross et al., 2021). Research comparing internet use of adolescents with learning disabilities with a reference group of adolescents without, show a digital lag in having access to digital devices, using the internet and performing internet activities (Alfredsson Ågren et al., 2020a). It was found that 70%–80% of young people with learning disabilities perform internet activities for entertainment purposes, while 50% use social media, compared with close to all in a reference group, and 20% were searching online for information compared with 84% among young people without learning disabilities (Alfredsson Ågren et al., 2020a). Further, this digital divide can be identified as inequalities in access to and use of the internet and reinforce inequalities in society (Scheerder et al., 2017). Therefore, research on digital divide has been called for focusing on different groups in society, for example, people with learning disabilities, that traditionally experience exclusion in many areas of everyday life and being participatory citizens.

Nevertheless, the increased use of mobile technology among people with learning disabilities may provide opportunities to develop social relations and contribute to a sense of belonging in the community (Danker et al., 2022; Darcy et al., 2016; Kim & Qian, 2022). Social media use has recently been shown to contribute to access to societal information for example keeping up to date on world events among young adults with learning disabilities (Kim & Qian, 2022). A review article specifically on social media use among young people with learning disabilities (Caton & Chapman, 2016) revealed positive experiences from using social media, as well as challenges. Examples of positive experiences were using social media to keep friends, and for the development of social identity, while challenges with online codes and net etiquette was also experienced (Caton & Chapman, 2016). Similar challenges of understanding social online codes have been reported by parents of young people with learning disabilities, together with challenges with technical and cognitive abilities for online participation (Sorbring et al., 2017). Further challenges that have been identified for people with learning disabilities are a lack of access to digital devices and internet connection in some settings, such as group homes (Alfredsson Ågren et al., 2020b; Danker et al., 2022) or challenges with handling the rapidly changing digital environment (Alfredsson Ågren et al., 2020b). To enable the digital participation of people with learning disabilities, Lussier-Desrochers et al. (2017) summarized five dimensions or requirements and address the above-found challenges. They are: access to devices and the internet; technical skills; sensorimotor skills; cognitive skills and an understanding of social online codes and conventions. Together these environmental and personal factors influence digital participation as challenges or opportunities (Lussier-Desrochers et al., 2017).

Although, there needs to be an awareness of the challenges and the risks with internet use and how to provide support for risk-taking on the internet (Borgström, 2021; Danker et al., 2022) recent studies have signalled the internet to be a less vulnerable place for people with learning disabilities than earlier anticipated. People with learning disabilities are motivated to use the internet and have some awareness of the online risks themselves (Alfredsson Ågren et al., 2020a; Chadwick, 2022). It has been highlighted that research on internet use and people with learning disabilities have been missing out on the possibilities that may come with using the internet, and there is a need of empirical research of internet usage and how online use is being translated into offline lives for the target group (Glencross et al., 2021). This has also been highlighted in research including parents who have identified online use as an opportunity for social participation and participation in society (Sorbring et al., 2017). This poses the question of how online use and reported digital lag influence the internet outcomes of social participation and community participation for young people with learning disabilities. Internet outcomes are described by Scheerder et al. (2017) as different beneficial outcomes from internet use that adds on to digital access, skills, and use and should be studied in upcoming research as a determinant of digital divides.

This calls for knowledge of how internet use influences outcomes on aspects of participation for young people with learning

disabilities from their own perspectives, as they are entering the unavoidable online use in everyday life. Definitions of participation have not yet reached a consensus among researchers, professionals, or people with disabilities, but participation has been deemed critical for health and well-being (Chang & Coster, 2014). In a conceptual model of participation by Chang and Coster (2014) aspects of everyday life are important in conceptualizing participation together with the need to categorize participation by either type or setting. The identified types of participation are three: productivity, social, and community, and the purpose of the activities within them define the type of participation rather than the settings in which they take place. In the current study, the focus is on types of social and community participation including roles as family members and friend in social participation and being a citizen and consumer of leisure time in the community as proposed by Chang and Coster (2014). Full and effective participation in society on equal terms as others are outspoken rights in the Swedish Act (SFS, 1993: 387) and the UN Convention on the Rights of Persons with Disabilities (UN, 2006). It involves being given the possibility to interact with others and perform activities as a participatory citizen, for example taking part in leisure activities in the community with others or taking part in the labour market (Chang & Coster, 2014). Further, it entails keeping updated on societal online information, to participate in society today, as most information is digital (Statista, 2022). As participation cannot be extracted from settings (Chang & Coster, 2014) with their different demands, environmental opportunities and challenges are crucial to explore with internet-using young people with both mild and moderate learning disabilities who perform internet activities to explore the internet outcomes on social participation and community participation in the digital society.

2 | AIM

This study aims to explore environmental opportunities and challenges when performing internet activities and how internet use influences social and community participation for young people with learning disabilities from the perspectives of the target group.

3 | METHODS

This study applied an inductive design, with focused observations and follow-up interviews of internet-using young people with learning disabilities in their everyday settings.

3.1 | Participants

Participants were recruited from six municipalities in Sweden, from special schools and work settings of daily activity services through purposeful sampling (Patton, 2015). Inclusion criteria were young people with mild or moderate learning disabilities, between 13 and 25 years old, and identified by staff at the special school or activity service as being internet users. In total 11 special schools and 6 activity services were approached but four special schools and two activity services declined to participate in the study due to a heavy workload and difficulties identifying young people who were internet users or willing to participate.

Participants are in total 15: 4 men and 11 women, between the ages of 13 and 24 years ($m = 18.5$) with mild ($n = 6$) and moderate ($n = 9$) learning disabilities. The severity of disability was verified by the type of school the participants were enrolled in or stated by health professional staff at the activity services. Two-thirds of participants were in special school ($n = 10$) and one-third worked at activity services ($n = 5$), and most participants lived in their parental home, and two lived in accommodated group homes.

3.2 | Procedure and data collection

Contact persons from seven special schools and four activity services identified participants based on the inclusion criteria and organized the first meeting between participant and researcher to establish rapport (Taylor et al., 2016). An initial pre-fieldwork visit was conducted with nine of the participants. For the remaining six participants the consent forms were sent to the first author from the contact person.

The focus of the data collection was on the internet devices including apps and the internet activities the participants performed in their everyday life, and the settings they performed them in. Data were collected through participant observations in two-three everyday settings per participant being at school or activity services and at home. A follow-up interview was done with each participant at the last observation. To get access to the target groups perspective cognitive adaptations were made to enable the participant's view. Photographs were taken during the observations and used as picture-based support during the follow-up interviews (Folkestad & Folkestad, 2000). Further, the questions asked during observations and the follow-up interviews were formulated with easier wordings or in either-or format (Taylor et al., 2016). All data collection was performed by the first author.

3.2.1 | Observations

Participants were observed between 1 and 6 hours per participant, in total 71 hours over 32 occasions, which included the follow up interview. The initial observations took place in the participants' school or activity service setting. The second observations were conducted either at the participants' home ($n = 8$) or on a second occasion in free time at school or the activity service at a suitable time for participants and within 2 weeks following the first observation. During the observations, the participant was followed in his or her ongoing events in the setting, for example, during teacher-led lessons at school or when being with friends during break

or their family at home. The observations included asking questions in a conversational style as recommended by Taylor et al. (2016) about their internet use in the settings from questions such as: *Can you show me more of what you do [on the Internet] here? Why do you do it?*

During observations, field notes of the participants performing internet activities in the different contexts were handwritten in a field notebook, alongside the observer's reflections (Taylor et al., 2016). The observation occasions were audio recorded and photographs were taken of the digital devices showing the screens when used by the participants, resulting in a total of 269 photographs, $m = 18$ per participant. The photographs were used as memory-aids and picture-based support during follow-up interviews and when transcribing the field notes. The first author made transcriptions of the audio recordings and fieldnotes, close in time to the actual observation.

3.2.2 | Follow-up interviews

During the follow-up interviews mainly three recurrent questions were asked about the observed performance of internet activities: *How come you do it? Whom do you do it with?* and, *Why do you do it?* The photos from the observations were printed or shown on the researcher's tablet to the participant as a cognitive adaptation during follow-up interviews (Folkestad & Folkestad, 2000). Further, participants used their own digital devices to show and clarify their answers and performed internet activities. Probing questions were formulated with easier wordings or in either-or format (Taylor et al., 2016) and were used alongside the three recurrent questions, for example: *What did you do here? [asked at the same time as looking at a photo], What do you have here? [on the starting screen) Why do you have that there? Is it because X or Y?* The follow-up interviews were audio-recorded and transcribed as part of the transcribed observations.

3.3 | Data analysis

The transcribed observational field notes with conversations and the follow-up interviews were analysed interpretatively using open coding in line with Taylor et al. (2016) and inductive analysis as proposed by Patton (2015). Initially, all the transcriptions were read through to get an overall understanding of the material. Subsequently in the analysis process, the transcribed material was read and re-read, starting with one participant at a time in all his/her settings to identify themes to answer the aim. Data from the specific cases of participants were analysed inductively for patterns, and writings were done in the margins to keep track of interpretations of the material (Patton, 2015). General patterns occurred from the case-specific analysis, for example, using online communication tools to interact with others as a way of socially participating. These findings were preliminarily organized and labelled in the ongoing discovery approach (Taylor et al., 2016) and themes were identified within opportunities and challenges in the environment and social and community participation. Thirdly, cases were compared in a cross-case analysis (Patton, 2015). This was done from the settings, analysing all cases from the school-setting, followed by the work setting, and finally, all cases at home and in free time, which generated further themes. They were marked with different colours and put together with drafts from the transcriptions to get an overview. In total the analysis process generated eight themes. Two were concluded from the environmental opportunities and challenges, being *Access to and design of digital devices* and *Support, digital competence, and rules*. Further, three themes of internet use and social participation were found: *Maintain and establish social contacts; Belonging to social groups*, and *Restrictions in social participation and social codes*, and finally three themes were found of internet use and community participation: *Searching, finding and understanding information in society*; *Using internet to take part in leisure activities in the community* and *Internet use and restrictions in community participation*. The themes were validated using quotes from the transcriptions, where the first author is referred to as *Observer* in the result section.

3.4 | Ethical consideration

The Regional Ethics Board of Linköping, Sweden approved the study (141201; Dnr: 2014/370-31). Ethical considerations on providing information to enable young people with learning disabilities to give informed consent to participate were specifically addressed, and information of the study was written in easy-read text supported with pictures (Folkestad & Folkestad, 2000). An initial pre-fieldwork visit was set up and conducted with nine of the participants in their school or work setting, as a possibility to meet before following them in their everyday settings. On this occasion, the field notebook was shown, and we tried the Dictaphone out. Additional verbal information was provided to ensure informed consent on the first meeting with the participant. The observations were open to everyone in the settings and for the second occasion at home or in free time, the parents were contacted for some participants who suggested it when asked. All data collection was performed by the first author, who needed to be flexible and respect integrity for all in the settings during observations. To secure anonymity all names in the study are pseudonyms.

4 | FINDINGS

4.1 | Environmental opportunities and challenges when performing internet activities

4.1.1 | Access to and design of digital devices

All participants had access to more than one digital device which provided an opportunity for performing internet activities. The digital devices most often used by participants were devices with touch screens with apps, mostly smartphones, and tablets. Few participants

had laptops with adaptations, but among those who had, the laptop was their most used digital device.

A challenge for some participants was to sensorimotor handle the small-sized digital devices, such as smartphones that often have small screens. For example, Cecilia had impaired vision and had to hold her smartphone very close to her eyes to see what was on the screen. Another challenge in the environment for some was not being able to open and use apps they had downloaded. These were apps that involved using a second app to finish off the activity, for example, when e-shopping or apps for buying bus tickets. The challenges were remembering passwords or to proceed inside the app due to difficulties following instructions in several steps. This reveals a need to focus on the need to design digital devices and apps to obtain optimal digital conditions to perform internet activities for the target group.

4.1.2 | Support, digital competence, and rules

Persons providing digital support served as opportunities in the immediate social environment for performing internet activities. These persons included staff and peers at schools or activity services and parents and siblings at home. Participants often preferred the support of someone of the same age as themselves and most often asked peers, siblings, or younger relatives for support. For example, Tina calls out to one of her peers at the activity service:

> *You, you help me. You have latest iPhone! You know more. Not him [nodding towards a staff member and giggles]. Her peer replies: "Yeah, yeah… I think I do actually*.

This shows that preferably young people with digital competence were chosen by the participants for digital support and could be a peer with learning disabilities. Further, it was found that the participants experience the digital competence of their peers with learning disabilities as more useful than that of staff. The often-limited digital competence of persons in the social environment were a challenge for the participants, as it often were only one or two persons having the competence to support the performance of internet activities.

Further, rules and regulations set up by others were a challenge and interfered with how internet activities were performed. Rules were, for example, regulating when to perform internet activities and to what extent. One rule many had, was that other activities had to be performed before internet activities, such as specific tasks during a lesson at school, eating at home, or walking the dog in free time. This was found in all settings, among both staff and parents and for all participants of all ages. This shows that performing internet activities was often seen by others as a rewarding extra activity, rather than integrated in most everyday activities. Although, it also shows that performing internet activities were highly valued by the participants themselves. Further, this indicates that performing internet activities was something that could be denied by others, revealing that attitudes of staff and parents on internet use can be a crucial challenge to the performance of internet activities, along with low digital competence.

4.2 | Internet use and social participation

4.2.1 | Maintain and establish social contacts

All participants used the internet to communicate and interact with others which enabled social participation and maintaining social contacts. Digital communication tools that were picture-based, such as FaceTime or Skype, were recurrently used by all, such as Cecilia who used Skype weekly to keep in contact with her parents and sister. Many participants, but not all, used social media, for example, Facebook, Instagram, Snap Chat, or KiK. The design of social media to be used asynchronously was pointed out as a possibility when communicating with others. For example, Amy, whose father was travelling in the United States, showed their ongoing short text conversations on Messenger, and pointed out the advantages of being able to have contact without having to phone or keep track of time zones.

A few were chatting in online gaming communities or having gaming apps downloaded and used to communicate and interact with others. One example is Ella, who plays Yatzy on the smartphone app with her aunt as a way of keeping in contact. In the follow-up interview with her she was asked:

> *Observer: "So who do you play [Yatzy] with?"*
> *Ella: "Eh….. My mother…. And then…_ _ _" Observer: "Aaa…. So you play with your mother and she plays on her smartphone?" Ella: "Yes! Eh …. And Aunt…And aunt wants …… Wants to play… If I do not play, she texts my Mum…. and asks …Where is Ella?"*

This shows that playing games using the internet influenced social participation, as a way to socialize and interact with someone known since before and to maintain a social connection. The digital communication tools, social media, or gaming apps were mostly used to keep in touch with friends and family and maintain ongoing relationships.

A few participants were establishing new contacts on social media and finding new friends. For example, Lisa was chatting with someone on KiK during the first observation occasion. She explained it was a boy she did not know, who had approached her on Instagram. Now they wrote privately to each other on Kik. This shows that social media is used as an arena to meet new people and establish social contacts, although the participants mostly used the internet to maintain contact with their existing social networks of family members and friends, and less for establishing new social contacts.

4.2.2 | Belonging to social groups

The digital devices of the participants were influencing social participation as they were referred to as artefacts that could demonstrate special interests shared with others and belonging to a specific group of friends or a public interest group or having a romantic relationship with someone. This was most often done by choice of pictures appearing on the starting screens that signalled interests and things one liked, for example, specific car brands, favourite football teams, or pictures of characters in online games one played. Many had pictures showing relationships with others for example private photos of themselves and their pets, family members, or oneself on a special event, such as a holiday trip. Only a few had a starting screen with a picture of a friend, and one had a photo of her boyfriend. Some had public photos of film stars and said it was their boy-/girlfriend. Most participants were keen on showing and explaining a lot about their starting screens. Further, the apps downloaded and appearing on the screen were of importance. Most who had social media apps downloaded opened them and showed their posts. Many had shared posts with photos from special occasions in everyday life, for example, photos of themselves in dresses from the high-school dance. Overall, this shows a sense of pride and belonging to an adolescent group of young people taking part in social activities for example at school and sharing these experiences, wanting others to know about them in the same way as most young people do through devices and on social media today. This was further highlighted as downloading the same apps as others had on their starting screens was performed. Molly was observed having some dating apps on her smartphone like Tinder. When asked about them she said she could not show them and continued:

> *Molly: "I don´t know much about them. For dating they are. I just have them here." Observer: "OK. Why did you download them?" Molly: "My sister had them. I also wanted to have them."*

This is an example of having apps that appear on the starting screen, even though they may not be used. This indicates that having the apps was an expression of wanting to belong to a group of young people who have dating apps on their smartphones and facilitated a sense of social participation.

4.2.3 | Restrictions in social participation and social codes

Some participants had experiences of being excluded from online groups on social media by people they knew and met offline, face to face, such as teachers, staff, or peers. This was described as influencing social participation in a restrictive way as participants described feeling sad and insecure when meeting face to face. For example, Ella had sent friend requests to teachers at her school on Facebook, but they had declined. After this Ella was reluctant to meet them at school. But Ella said her Mum had explained to her that they are working together at school, although not being friends. This indicates difficulties of understanding the social codes when using the internet. Another example of this is Shirin, who experienced exclusion from a social group of peers when using social media. Shirin and some friends at school looked at and discussed one of their posted videos from the weekend in a group on Snap Chat and through the discussion Shirin understood that she was no longer part of the group on Snap Chat.

> *Shirin says: "Can I see? Can I see?" One of her peers at school is holding the phone very close to herself saying to Shirin: "You´ve seen it already. Don´t go on about it. Did you know Lili [another peer at school] was erasing you from the group [on Snap Chat] this weekend because she found you so annoying on the film?" After this, the friend is holding her breath, looking at me, and then back at Shirin. Shirin looks down and says: "Oh ok…should I erase her too?" Her friend says: "No. Remember I erased you, but I put you back in again".*

This experience restricted Shirin's social participation, as she had been excluded from the group of friends in the social media app and this was still talked about the next week at school among peers. Further, Shirin expressed an uncertainty on how to handle the situation. Both the above examples seemed to serve as a learning experience of online social codes and behaviour that can be learnt both with parents and peers. Further, this indicates that participating in social groups using the internet can be a quickly changing arena of participation, with social codes that may be difficult to understand for young people with learning disabilities.

4.3 | Internet use and community participation

4.3.1 | Searching, finding, and understanding information in society

Searching for information was performed on the internet by most participants using search engines, for example, Google, Bing, and apps like YouTube. Information searched for was of varying sorts, for example, some looked at the news and read newspapers on the internet to be updated on local and global happenings. Someone searched the internet for prices of merchandise. Different apps were used, for example, to search for information about the weather or for information on upcoming TV-programs. Further, a few participants identified the need to be able to search for information on internet for everyday life activities as society is getting increasingly digitalized, for example, Marcus, who wanted to apply for further studies. He had been searching for and finding information of the different courses online, and he found an application form to fill in. Even though he could not fill it in or print it, he said: *But now I know…That is how you*

*do it, you know. Look for it on the internet… Now I can tell my dad…*This indicates that he had knowledge, that perhaps his father lacked, to search for information on the internet, to be able to get information on how to pursue his wish to participate in the community and enrol in further studies.

4.3.2 | Using internet to take part in leisure activities in the community

Information to take part in activities in the local community were searched for online by most participants, for example, about movies at the local cinema or checking opening hours of the local swimming pool or shopping malls. Further, some used social media as a medium to be able to take part in leisure activities. One example of this is Kylie who shows a group for online communication on KiK where every member of her football team is participating. In the group, they send messages to decide on car rides to trainings. Kylie says: *It is good because I can´t go on the bus on my own… If my Dad can't take me I can look here… as my Mum don't drive…* This indicates that using the social media app and being a member of the KiK group enabled her to take part in both trainings and matches of the football team and facilitated Kylie's possibilities for participation in the community.

Further, participants were searching online for information related to feeling more secure to take part in activities in the community. Molly's class was going on a field trip within a week and Molly was hesitant to go. During the break at school, she went to the stationary computer, started Google, and said:

> *Molly: "The Factory of Fun, do you know how it is spelt? " Observer: "I think you have written it the right way there" Molly: "Ah… OK… You know we are going there and I don't know… I have never been there…. " She presses Pictures in the search engine. "Oh look, here is the house and different rooms…". She is clicking on different pictures on the homepage. "Oh look here is the park. I think it is opened…. Yes it is! _ _ _This will be fun …. I think…. We´ll see…"*

This shows that she was searching for the homepage of the place, as a tool for knowing more about a place she was going, where she had never been before. She searched for, found, and seemed to understand the information and could use it for preparation and being less hesitant and decide to take part in the field trip, which contributed positively to Molly's possibilities for community participation.

Internet activities were even performed as a substitute to attend physically at community activities. For example, when the local football team in the highest league played Simon watched the games live on a streaming channel. Simon explains that he does not want to attend physically, but likes to see the matches and follow the team:

> *It is too loud for me, you know. The game. And there are the supporters too. Too much to worry about. My ears hurt. Here [shows on the device] I can put it down [the volume] or up….and I get to see the re-runs too….*

This showed an example of how performing internet activities of streaming live-sent services for entertainment enabled taking part in a community activity that otherwise Simon would not have taken part in.

4.3.3 | Internet use and restrictions in community participation

Many were searching for information online to enable participation in activities, but it was challenging for most to find what they were searching for and even more so, understand it. Some who found information on the internet were not able to pursue the activity to completion, for example, Marcus, who was checking out the bus timetables to travel to and from a friend on the local bus. He took a bus to his friend but did not understand the information on the internet correctly to be able to take the bus back home and said he had to phone his dad to get picked up. This led to experiences of restrictions in community participation. This was also the experience of Kylie, who had ordered cinema tickets online, but when she got to the local cinema, she could not get the tickets out of the machine. She explained that she had phoned her dad who tried to help her but that she and her friend didn't figure it out and did not make it to the cinema in time. These examples indicates that participants' learning disabilities limited the possibilities to understand community information and gave limited possibilities for exercising citizenship.

Banking business was an activity hard to pursue for most and Marcus explained that he had difficulties to get an idea of the amount of money on his bank account:

> *It now costs money to get a paper out from the bank. As I don't have an internet bank. I may get it soon; my dad will try. But he doesn't know if it will work for me…*

This indicates that performing the everyday activity of knowing the amount of money one had without using the internet meant an increase in costs compared to using the internet. However, it also shows that performing the banking business using the internet may not even be possible for this young man. These community participation restrictions showed obvious limitations when using the internet and was hindering participation in going to the cinema, using public transportation, and performing banking businesses. Further, these activities were described by participants has having become more difficult in today's digitalized society and this reveals examples of restrictions in exercising citizenship and managing daily life due to internet use.

5 | DISCUSSION

This study set out with the aim to explore and describe environmental opportunities and challenges when performing internet activities and how internet use influences social and community participation for young people with learning disabilities from their own perspectives. The findings show that all participants performed internet activities that influenced social participation by communicating and interacting online with others, although not all used social media. Yet, more examples of internet use influencing social participation were found than examples of community participation, meanwhile, restrictions were found within both. This supports the need to expand the research focus toward internet outcomes as determinants of digital divides as proposed by Scheerder et al. (2017) also for people with learning disabilities. The examples of internet use influencing social participation, interacting with others, mostly to maintain and occasionally establish new relations, show that the internet is used in similar ways as among young people in general and that young people with learning disabilities now belong to the digital generation (Borgström et al., 2019). Further, the finding of performing internet activities relating to posting on social media and belonging to social groups are in line with previous research on identification processes supported by internet use for young people with learning disabilities (Molin et al., 2017). However, restrictions were found in difficulty to understand social online codes, as has previously been reported (Caton & Chapman, 2016; Lussier-Desrochers et al., 2017).

Fewer examples of internet use that enabled participation in community were found, although examples of using internet to feel more secure to take part in events in community or streaming the football matches of the favourite team were found. The latter enabled taking part in the activity without being physically present at the arena, but rather in the safe place of home. This possibility of being active online at home has been suggested to contribute to enhanced feelings of being active in society (Spassiani et al., 2022). This shows that internet use made it possible to take part in community activities exercising citizenship on equal terms as others in line with acts and laws (SFS, 1993: 387; UN, 2006). However, the digitalization of society in the community and at the global level were identified in our study as influencing the performance of internet activities in a restrictive way often with difficulties on how to proceed to complete an activity. In line with this the knowledge in our study points out that most offline possibilities related to community participation have been removed from society for example the possibility to buy cinema tickets at the cinema, bus tickets on the bus or visit the bank for banking businesses without an extra cost added. Replacing these services with only online services is an environmental challenge for people with learning disabilities that obstruct community participation. Our study can be regarded as a contribution to this research area, though further studies are warranted in this unexplored field of how to translate internet use into offline possibilities for people with learning disabilities (Glencross et al., 2021).

An unexpected finding in our study was the preference of the participants to get digital support from their peers with learning disabilities rather than from staff. Similar findings of participants turning to younger people when they needed technical support has been reported (Molin et al., 2017). However, it has not been found in studies including young people with moderate learning disabilities, to our knowledge. The result from our present study indicates that the digital competence among staff and older people, for example, parents, is viewed upon as insufficient among young people with learning disabilities and are in line with Molin et al. (2017). Further, it was found in our study that support persons often managed to create a concrete and suitable learning situation for the young person with learning disabilities when using the internet for social participation, for example explaining about social codes on the internet. This was occurring both together with parents and peers, with the latter being in line with earlier studies that reported on people with learning disabilities turning to their peers when encountering difficulties with comments on social media (Kim & Qian, 2021; Molin et al., 2017). This type of concrete learning situation was not found when using the internet related to community participation. Those situations could rather be characterized as abstract and with a lack of social support, for example, having to find out about further studies oneself. This shows that there are different conditions regarding the type of learning situations for social and community participation. This highlights that using the internet and its outcomes to participate in today's digitalized society is more challenging among people with learning disabilities than performing internet activities for social participation, as has been previously reported by parents of young people with learning disabilities (Sorbring et al., 2017). Our result implies that the proposed shift referred to of young people living their everyday life through the internet (Livingstone et al., 2018) is still not reached for young people with a learning disability. However, the performance of internet activities related to social participation may be a starting point to elaborate and make use of internet for community participation to a greater extent for young people with learning disabilities. Similar findings indicate that with support to enhance one's digital skills to use the internet possibilities beyond social connectedness may be offered (Barlott et al., 2020).

Further, the findings in this study on environmental opportunities and challenges show that these often go hand in hand and are intertwined for people with learning disabilities using the internet. The challenges of understanding the social online environment with new social codes to learn may contribute to restrictions in social participation. Solutions, for example, individualized support for learning, has been recommended, but not tested (Lussier-Desrochers et al., 2017). People in the social environment providing digital support may challenge or create opportunities for using the internet. Their attitudes toward internet use and digital competence have been reported as a possibility to both lower and increase the barriers to internet use in general for people with learning disabilities (Sorbring et al., 2017). When it comes to the physical and digital environment, participants often used more than one digital device which has been highlighted previously to promote social participation

through internet use among people with learning disabilities (Martin et al., 2021). However, the finding also reveals accessibility challenges regarding the design of devices, apps, and websites where actions in several steps needs to be taken, which are in line with earlier studies (Barlott et al., 2021; Darcy et al., 2016). These findings need to be communicated to digital product and web-designers, together with a call for using principles of universal design for all, that is, that products, or services in a specific environment should be designed to meet the needs of all people who wish to use it (Centre for Excellence in Universal design, 2022). This is emphasized in the CRPD (UN, 2006) as a strategy for a society being inclusive of all.

5.1 | Methodological considerations

The aim was reached through the study design of observations in the participants everyday settings and the use of cognitively adapted follow-up interviews to ensure the perspective of the target group. The data collection design was vigorous but relevant to get access to the participants perspectives. All participants in this study were internet users and the findings are not transferable to the general population of people with learning disabilities. The findings indicate more situations of internet outcomes when performing internet activities influencing social participation, rather than community participation. This could be a circumstance depending on the young age of the participants with a mean age of 18.5 years and a range from 13 to 24. Activities in the community related to being an adult for example handling banking business, may not have been appropriate everyday life activities for all participants. There is a need to further explore aspects of community participation related to performing internet activities in future research, and include young adults with learning disabilities, from the age of 18 and above.

6 | CONCLUSION

The research reveals this group of young people with learning disabilities as active internet users that highly valued performing internet activities and were motivated to use the internet as has been found previously (Chadwick, 2022). They were performing internet activities on their own and together with others and preferred digital support from peers rather than support from family or staff. More examples of internet use positively influencing social participation were found, contrary to community participation. These findings demonstrate the relevance of a distinction within the concept of participation as described by Chang and Coster (2014), who separate between social and community participation. Further, the results indicate that concrete learning situations in combination with social support when using internet for social participation were adapted to the participants and promoted this type of participation. Community participation situations can be described as the opposite and restricted opportunities to participate in society. Due to this, concrete learning situations including social digital competent support are recommended for different types of internet use for influencing social and in particular community participation.

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CONFLICT OF INTEREST STATEMENT

The authors report no conflicts of interest.

DATA AVAILABILITY STATEMENT

Research data are not shared.

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