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1/2021	Partizipation verwirklichen - Zur Weiterentwicklung Sozialer Dienste im analogen und digitalen Raum

Sven Bittenbinder, Fabiano Pinatti, Claudia Müller, Volker Wulf

Caring for Inclusivity

Accessibility as a Determinant Factor for Benefiting from Social Services both in Analogue and Digital Spaces

Abstract

Over the past few years, an increasing attention is being paid on how to include people with different profiles, backgrounds and conditions in different sectors of society. This is being mainly driven by public and social sector, with governments and non-profit organisations putting forward different agendas for inclusivity, as for example, the one related to migrants, the one related to gender and the one related to impairments. These movements have spilled over the business sector, forcing companies to start thinking of how to be more inclusive in many different aspects. This paper focuses on aspects concerning accessibility of visually impaired people to workplaces and reflects upon how those aspects can be transferred to getting access to social services both in analogue and in digital spaces. We draw on a phenomenological account of the experiences of a visually impaired person with getting access and becoming included in the workplace, discussing spatial, temporal, embodied and social aspects of her experience. The case presented is part of a research and development project funded by the German Ministry of Labour and Social Affairs, which aims at sensitising people about accessibility and providing ways for people to engage in assessing and promoting accessibility of software systems, which are an integral part of modern workplaces.

Introduction

Accessibility is an aspect that transcends the dichotomy between digital and analogue spaces. It refers to removing barriers that may prevent people experiencing certain conditions to access a particular service or resource ('Behindertengleichstellungsgesetz (BGG)', 2002; The United Nations, 2006). Manifold examples can be found in people's everyday lives: from the installation of ramps to allow people sitting in a wheelchair to access buildings, to the preparation of digital texts that can be properly read aloud for visually impaired people. Accessibility is therefore a relevant aspect for inclusivity, as extensively discussed in literature (Mankoff, Hayes and Kasnitz, 2010; Oliver, 2013; Frauenberger, 2015), and arguably a determinant factor for the access of social services.

This article sets out to discuss the role of accessibility in the creation of more effective and stronger communities, mitigating inequalities and enhancing opportunities. In particular, it attempts to answer the question concerning what steps should be taken towards the provision of accessible spaces, so that people with impairments can benefit from social services in hybrid spaces. Based on the results of a community-based participatory research (CBPR) study (Finley, 2008; Holkup et al., 2009), involving people with and without impairments involved in the construction, provision and use of information technology (IT) -based workplaces, we go on to discuss how accessibility is a determinant aspect for social interaction and, therefore, a key aspect of social services. In addition to that, we reflect on the relevance of accessibility to the future of social services, by illustrating the trend towards better including people with impairments in society.

We bring on board views from designers, developers, consultants, employees and employers on the issue of accessibility in realising that the issue is highly relevant to the concept of participation. We will introduce many challenges reported by our co-researchers in discussing the elaboration of an inclusive work environment, through a phenomenological analysis of a case that has been documented across the data collection activities that we have been carrying out for our study, which is part of the project iDESkmu (Inclusive DMS and ECMS in Small and Medium Enterprise - kmu, in the German acronym).

The article also draws attention to the fact that the demographic change affects all of us. In age there is a higher possibility to get ill or to get an impairment. When this happens, it is essential to have accessible services that do not hinder further participation in society. By introducing this discussion, we aim at highlighting future directions on research and developments towards inclusion and participation of people in general in foundational activities of society.

Relevance of Accessibility

We all somehow face digital and analogue barriers in our everyday lives from time to time. However, a variety of barriers pose a greater challenge for people with impairments. This does not only affect people with congenital impairments, but also those people who developed an impairment in the course of their (working) lives, due to illness or accident. With the demographic change being caused by and increasing aging population, the likelihood of an acquired impairment also increases (WHO, 2011). The need for accessible workplaces can therefore affect us all. Therefore, we and many others - e.g., WHO, 2011; Branham and Kane, 2015; Bennett, 2018; Crabb et al., 2019,- argue that accessibility is becoming more and more relevant in current times.

Accessibility, as explained above, removes the barriers that may prevent people to have access to services and resources. It consequentially contributes to equal access to these services and resources and hence to mitigate potential inequalities between people with different profiles. In work contexts, removing these barriers means to give more people the possibility to engage in productive activities (Oliver, 2013; Frauenberger, 2015; de Carvalho et al., 2020; Bittenbinder et al., 2021). In particular, it supports people suffering from different types of impairments to be included in economic activities.

There are many reasons for companies to hire people with impairments, especially in times of shortage of skilled workers in order to maintain the company's skills (Baumgärtner et al., 2015; Bundesagentur für Arbeit, 2019). The costs of filling a new position should not be underestimated (Smettan and Kleineidam, 2018). It is therefore advisable to adapt the existing workplaces of the increasingly aging employees to the respective requirements that increase with age, thus to keep them in the company in order to save the substitution costs for hiring new employees. The offer of suitable (accessible) jobs is therefore for both aspects, the acquisition of new skilled workers from the group of people with impairment to maintain the competence of the company and the preservation of jobs for experienced professionals from the aging workforce, thus has the potential to help to counteract the shortage of skilled workers.

Towards Sensitising People about the Relevance of Accessibility

Despite numerous activities, regulations and institutions to promote inclu-

sive workplaces, the employment level of people with impairment lags behind (WHO, 2011; Gudlavalleti et al., 2014; Grussenmeyer et al., 2017). There are conventions and laws at national and international level that regulate the inclusion of people with impairments in the world of work ('Behindertengleichstellungsgesetz (BGG)', 2002; The United Nations, 2006; Trenk- Hinterberger, 2012). However, the concrete implementation at the operational level is mostly driven by initiatives such as projects (e.g. DIAS, www.dias.de) and (social) associations (Landschaftsverband Westfalen-Lippe -LWL-, 2018). However, there is not yet an initiative focused on practical awareness raising to promote accessible software using an acessibility tool to create more inclusive workplaces.

The project iDESkmu (www.projekt-ideskmu.de), whose results of ongoing activities have inspired this contribution, set out to contribute to mitigate this gap. The project investigates the challenges faced by people with impairments in work contexts. This concerns not only digital and analogue barriers directly related to the workplace set up or aids used, but also primarily analogue (social) factors on the part of companies and (possibly future) colleagues. In particular, the project focuses on creating and maintaining accessible IT-based workplaces for blind and visually impaired people. The project concentrates on the development and use of document- management- systems (DMS) and enterprise- content- management-systems (ECMS), investigating the extent to what existing systems are prepared to be used by blind and visually impaired people in work contexts.

The goal of the project and our research is to provide outcomes for different levels to create a more inclusive work environment (de Carvalho et al., 2020; Bittenbinder et al., 2021). At the micro level, the project focuses on inclusive research and design methods, to understand people's experiences with accessibility and the extent to which they are engaged with it. At a meso level the project aims at the sensitisation of individuals and groups in terms of the relevance of accessibility. At a macro level, the goal is to bring change into society and work culture concerning the inclusion of people with impairment in it.

The project, which is predicated on the premises of CBPR (Finley, 2008; Holkup et al., 2009), engages representative from different stakeholder groups in the collection, analyses and use of relevant data for the project activities. Since the project is oriented towards the Grounded Design (GD) research paradigm (Rohde et al., 2017), it pays particular attention to the understanding of practices for design, development and assessment of solutions to support people in accomplishing their goals. GD is a research paradigm rooted on a practice-theoretical scholarship and, as such, brings theory and practice together in order to assess the quality of existing solutions, so to further develop them or come up with new and innovative solutions, which can support current practices or the development of (hopefully) improved ones.

The project draws on the Design Case Study (DCS) framework introduced by Wulf and colleagues (2011), which entails the use of ethnographic, participatory, and user-centred evaluation methods (Muller and Kuhn, 1993; Nielsen, 1993; Mayhew, 1998; Sharp, Rogers and Preece, 2006; Finley, 2008; ISO, 2018) to implement a GD project. The use of participatory methods in accessibility projects is key, especially in terms of involving people with impairments. Integrating people with impairments into research and design processes is, according to the motto „*nothing about us without us*" (Charlton, 1998), mandatory (Magnusson, Hedvall and Caltenco, 2018; Vollenwyder et al., 2020), despite of the associated challenges and difficulties (Bittenbinder et al., 2021).

The Path to Work: A Phenomenological Account of Accessibility Issues Experienced by Workers with Visual Impairments

In this article, we set out to present a phenomenological account of accessibility issues experienced by workers with visual impairments. For that, we refer to a case documented and analysed within the project iDESkmu, by means of a hermeneutic phenomenological approach (Finlay, 2014). Put differently, we address experiential aspects within our case as we try to understand how the account of lived experiences reveals dimensions of the lifeworlds of informants of the study (Ashworth, 2003). We refer to Van Manen's (1990) four dimensions of lifeworld - i.e., spatiality; temporality; sociality; and corporeality or embodiment (Langdridge, 2008).

The case refers to the experiences of one of our co-researchers, Stephanie[1], with getting access to her last workplace. Stephanie is 31 years old and severely visually impaired. She is considered legally blind and suffers from the so-called cone-rod dystrophy[2]. She cannot visually perceive particularly targeted sections of the environment, other sections are very blurred, so that normal reading without aids - e.g., magnifier - is not possible. She currently holds an office job in an institution from the public sector that was out of walking distance for her for almost a year. At work she administrates and organises project work with the help of some assistants. She is responsible for distributing project tasks to her assistants and project partners and for completing them herself. Mainly this involves research, conception and writing work. She also takes care of administrative tasks for the project, does a lot of telephone articulation work with project participants and is also on the road for the project.

The analysis herein presented has been carried out by the two first authors. For our own purposes, we draw on Finlay's (2014) approach to phenomenological analysis which entails four general key processes: (1) embracing the phenomenological attitude; (2) dwelling in the data; (3) explicating the phenomenon; and (4) languaging. The phenomenology reduction sought in embracing the phenomenological attitude has been exercised by applying epoché. This has been done by bracketing our pre-conceptions about the theme through critical discussions between the analysists where experiences and thoughts on the findings have been shared and exchanges with our co-researcher as the analysis progressed. We have dwelled on the data by means of a thematic analysis according to the approach introduced by Braun and Clarke (2012) and explicated the phenomenon taking into consideration the lifeworld dimensions that we refer to above and articulated this explanation in the language we use across the contribution.

The insights into the work path of Stephanie highlight the analogue and digital barriers that people with visual impairments face in their everyday worklives. The analogue barriers refer to structural and, in many cases, social aspects that suggest a lack of understanding and knowledge for needs and practices of people with impairments. Digital barriers, especially when working with PCs, are also pervasive. On the other hand, mainly due to the advancement of technology, there are new digital tools that enable people with impairments to overcome analogue barriers as well. For example, the magnification app or a read-aloud app on the smartphone, which can be used to make analogue texts accessible to the blind and visually impaired (almost) regardless of location. As will become evidence by the analysis of the findings, the identified barriers are directly connected to the spatial, temporal, social and corporeal dimensions of our participant's lifeworld.

Mobilising Bodies across (Un)Familiar Contexts

Physical mobility is a notion that inherently involves motion of bodies across spaces in a given time. In the case of Stephanie, her journey begins at home. She leaves familiar surroundings, where she has no difficulties to find her way around, and enters a world that can be quite unknown at times. For instance, she has no difficulties to move in her apartment or leave the building where is located. Even the stairs in the building are no problem, as she is used to them. The same applies to her way to the nearby bus stop. Choosing the right bus, however, can be a hurdle for her, especially when she has a destination other than the office, such as a meeting taking place in some other venue. She usually checks the bus schedule and whether she is at the right stop for the line with a magnification app on her phone. Unfortunately, the bus stop is often very busy and not only one bus line stops there. Although she can have the time read aloud through her smartphone and compare it with the departure time she researched beforehand, the buses are not always on time, showing that temporality can be critical issue in her lived experiences. To make sure she does not get on the wrong bus, when she boards, she always has to ask the bus driver if she is on a bus for the right route. Since she does not use a cane for blind people, because she can still see curbs and other edges, very often the bus driver does not realise that Stephanie is blind and cannot read the display on the bus:

Yes, you are often labelled as stupid because you ask questions, because you can't read or see something. Everyday example is, of course, when I ask a bus driver, please excuse me, go to, what do I know, up to the university? And then something like that happens quite often: Yes, it says on it. Or what's on it, right? Then I say: Yes, sorry, I just can't read that, that's why I ask. Excuse me, I am visually impaired. Yes, that's just difficult.

The lack of embodiment of her impairment hence leads to a sociality problem and Stephanie finds herself in a position where she has to continuously explain herself, which is a source of inequality and at times of discrimination. In particular, the excerpt makes transparent that, even when she receives an apology from the driver, she has the feeling that she is being blamed because she is not using a cane for blind people. Disability emerges from her experiences, which could be avoided if people were educated to know that (legally) blind people do not necessarily have to use a white cane, because they can see enough to move around without stumbling, although they cannot see enough to identify information on displays or printed placards. There is a perception of lack of tolerance, which adds a level of stress to her day which people without her impairment do not have to experience.

Since information about the bus stop is usually only provided via a visual display at the very front of the bus, where no one is allowed to stand, she also relies on the bus driver to tell her where to get off. This reinforces sociality as an important aspect of overcoming analogue barri-

ers such as those observed in the excerpt above. Other types of buses have an additional audio announcement of the next stop, but even this auditory information is often inaccessible in practice due to loud noise levels (engine, people).

Mobilising Minds

People with visual impairments not only have to overcome challenges concerning mobilising their bodies across difference spaces in specific times, but they also have to work on mobilising minds, as the findings previously presented have already suggested. This aspect of sociality come out was strongly evidenced in our data, as discussed in the following. When it comes to the path to work, two sub-themes became visible as we worked through our TA: going through the management level and connecting and working with colleagues.

Going through the Management Level

The analysis of our data suggests that the path to work is not only constrained to the physical or temporal mobility from one's home to the workplace, but it also concerns the path until they have access to the workplace. Here, the journey starts with people convincing their employers that they are capable of delivering what is required for the position they envision. During her interview, Stephanie recounted the difficulties that she already faced applying for a job. One of the experiences that marked her the most, was her experience of applying for a job in a food market. In that occasion, she almost had to beg to prove herself able to do the job. The manager interviewing her clearly demonstrated serious concerns about her being independent from the beginning.

I'm there to see the boss and to introduced me. And he was totally sceptical. And he did, he told me openly, he doesn't think I can do that. And I persuaded him and said, „Please, please, let me do a trial working day here, free of charge. I'll show you that I can do it". That's how he got too broad-minded, but super sceptical. So really offensively sceptical too.

The account above shows how hard people with impairments have to fight to show that their impairment will not prevent them to accomplish things. Stephanie had to go to a very emotional level in order to have the opportunity to prove on a factual level that she can work just like a normal-sighted person.

I worked there for one day. The people who worked with me in the store were all totally surprised and positive, really pleased that I managed so well and impressed.

Although Stephanie was able to report on a success history, it is sensible to think that many people would not be fierce enough to transpose this initial barrier. Further analysing her case, we found evidence that this barrier is a common place. In her current job, for instance, there were similar reservations before she was hired, in this case, not at the level of the person who would be supervising her work, but in the company's level. It is also worth mentioning that there was also a complete lack of knowledge and experience of how to deal with the hiring of an employee with impairment:

[The boss] said the whole company was completely overwhelmed with hiring me because nobody expected that I should be hired [...] „Yes, what, you really want to hire an impaired person here? What? But we had that not yet. Huh? How is that supposed to work now? „ [...] But somehow it was very clear to everyone [so far] that I would be rejected [as a person with impairment]. [...] And when I was supposed to be accepted, the whole company was completely overwhelmed. And yes, nobody really knew how to do it now.

In this case, not only was Stephanie's company overwhelmed by how to hire, but also by the potential aids that would be needed to prepare the workplace for her. There was a strong concern about the types subsidies that would be available for the employment of people with impairments. This is not restricted to Stephanie's current employer. Findings coming from other participants of our study corroborate the aspects from Stephanie's case. One emblematic example refers to the account of the CEO of an IT service company that we had the opportunity to interview, who reported how shocked he was during an interview with a potential visually impaired employee, when he realised how little he knew about employing people with impairments.

And she has already explained that to us and also said that she will bring almost everything with her. She has enlargement software, she got the license on her computer from the employment agency, which she brings with her. Then she may need a lamp that hovers over her so that there is lighter. She has extra glasses. Yes, and basically described the workplace to us and said: Okay, I still have a device, like an overhead projector, where you can put something on it so that documents can then be digitized again. That means she would like to have a workplace, which is at least so big that this device still fits on it. Or a side table. So, she had very specific ideas because she is also working on this project and simply knows when an employer is not familiar with it. They also had the right forms where you can apply for help, integration allowance and so on. So, she was exemplary. [...] Since, as I said, I hadn't had any contact with it before, it was of course charming that we had an applicant where we knew she was concerned with the subject of integration or inclusion.

(Manuel, IT service company, CEO, sighted)

Unfortunately, this is not an isolated case; our findings suggest that there is no knowledge within companies about the specific needs of people with impairment. Stephanie goes on to tell how her employer lacks knowledge and awareness of the individual requirements of the workplace and the aids, despite the fact that she has been working for them for a while now:

[...] he said, „You're visually impaired, yes we might have to put stronger lamps there again..." And then I also say, „Yes, but no! That's not my need!" That's... that's exactly what I mean. Again, that's not individual. That's just, „Okay, somebody has bad vision. Then huh. What are we going to do cliché-wise? More light, always more light!"

Connecting and Working with Colleagues

Sociality issues concerning the path to the work goes beyond the management level, as already suggested above. Stephanie goes on to say that nowadays, she feels welcome in her workplace as she is warmly greeted by her colleagues when she arrives. She often finds herself with a smile in her face when she thinks back to her early days at the company and the challenges she faced working with sighted colleagues as she walks to her workstation. Part of those challenges concerned work practices in place, which would not be feasible to collaborate with a person with severe visual impairment. It was visible that her colleagues were not used to think about collaborating with people with impairments. One example was the way that they used annotations to mark digital documents:

I mark the yellow. Just mark it in Word and yellow. [...] my supervisor always likes to make it red. So red writing, where I then say, „Okay, but then I don't necessarily see it".

Marking in documents was not the only one where working practices differed in such a way that it was inaccessible to certain people. Another example was the „track changes" mode in text documents, which cannot be used effectively and as desired in interaction with the assistive systems Stephanie used:

In our team, it has actually been common practice to show revisions in Word with Track Changes. I have the problem that when I use ZoomText to read out a document like this, even if the track changes are not displayed, i.e., hidden, not visible, it still reads them out. So, I can't just have it read to me because the document doesn't make sense there anymore.

The *embodiment* of the work practices in the artefacts used for work hence emerges as a barrier for people's path to work. This demands an extra layer of effort from people with impairments in terms of communication. Stephanie feels that the communication is key to sensitising people. Sensitisation, on the other hand is key for making the path to work viable. Therefore, Stephanie tends to openly communicate about her limitations, so that others do not take them for granted.

Of course, I always have to do a lot of educational work. Where my problems are, what is not so accessible to me, or how people should communicate things to me. [...] I work differently, I would say. And those in the team, that took a bit of time. First of all, of course, until I had the self-confidence to say to them, „Here, please adjust to me". [...] In the end, however, they also recognized this and said, „Well, you work the way you can work best [...] you have to cope with it. Okay, we'll adjust to it somehow."

Through *sociality,* Stephanie made her colleagues aware of her limitations and the needs stemming from them. Raising awareness in a real-life context is a decisive factor in the quality of sensitisation, because only then one can really understand the consequences of certain things.

There are always a few things that you sometimes only become aware of when you... when you are really confronted with them, where you think to yourself, „Oh, that's right, that's normal for the others. But not necessarily for me."

This finding resonates with findings coming from other participants as well. Timo, a consultant and project manager of an IT service company goes on to report on a similar experience, but from the perspective of a sighted person:

I could imagine that if, for example, a department thinks that they will all move closer together, because you help each other somehow and I could imagine that this simply has a positive effect on the overall climate, which then leads to better work performance etc. at some point, so I guess for, probably even over all, for the company.

All the above demonstrate how complex and difficult the path to work for a visually impaired person can be and how issues of spatiality, temporality, corporeality and sociality emerge from it and help to illuminate relevant matters.

Transferring Accessibility Issues at the Workplace to Social Services

Social services are usually available and accessible in both analogue and digital form. On the basis of our findings, presented in the previous section, various challenges for social services can be observed.

For instance, in order to use a local social service, it is necessary to get there. Comparable to the path to work, this way to social services can contain barriers for people with impairments, which block the use or, if necessary, even the information about a social service in the first place. Not all matters can be discussed over the telephone; after all, these are very often very personal matters and are related to existence. These analogous obstacles „on the way“ are not directly part of social services, nevertheless these practical hurdles for people with impairments are a very relevant factor in the use of social services, so we consider this aspect within the context of „barriers of social services“. A social service can only fulfil its mission if the people who need support can reach the service. Otherwise, the service has failed in its task. In the context of workplaces Bonaccio et al. (2020) underline this fact by analysing the hiring process. For example, they show that if the channel for a job offer is not even accessible, the job offer does not even reach the intended recipient. In principle, this is the same challenge for social services to make them accessible to everyone via accessible channels.

Something similar applies to digital access to social services. Information and services offered on the Internet must also be accessible, i.e., reachable, for people with impairments. For example, the software used in the company, which Stephanie must be able to operate in order to perform their job tasks. The company software must meet certain accessibility requirements in order to be fully usable by people with impairments. If it does not, that application cannot be used. Transferred to, for example, social services websites, the principle is arguably the same. Websites must also be accessible in order to be operable and usable by people with impairments. In the field of software and websites, there are „accessibility guidelines“ (W3C Web Accessibility Initiative, 2013; Tollefsen and Ausland, 2017; ISO, 2018) to ensure accessibility of digital services in general. Although compliance with these guidelines is already binding for websites of public institutions in EU (‘Richtlinie (EU) 2016/2102’, 2016; Lang, 2018), by far not all websites have been implemented in an accessible manner. In addition, the regulation does not apply to private providers, in whose hands, however, social services are often located (Grunow, 2011).

Another aspect, which is also not directly related to the performance of the social service, but can also be a decisive barrier to the use of social services, is ignorance. We use „ignorance“ here because it is not a matter of pure unawareness, but also because people do not want to deal with the issue at all without concrete pressure. The findings coming from Manuel’s quote above suggest that, in the professional environment, companies often ignore the provision of accessible workplaces which could include people with impairments. Neither the knowledge of assistive systems is widespread in the corporate context, nor the knowledge of funding and related institutions. Without the knowledge that there are even agencies that support and promote companies in creating and equipping accessible workplaces, these services are not used at all. The same premise can be applied to social services. Without people who could benefit from the performance of a social service knowing about this service, they will not make (direct) use of it.

Human interaction also plays a major and crucial role in the use of social services. The social barrier to using social services mentioned by Oelerich et al. (2019) refers to the fear of not being properly understood or stigmatized and therefore not using social services. Misunderstanding can occur quickly and unintentionally due to ignorance of the exact situation. The insight into the results in the work context shows how difficult it is for inexperienced persons to (correctly) understand their counterpart. Examples of such learning behaviour can be found in the theory of „social learning“ (Gundry, 1992; Reed et al., 2010) and the „symmetry of ignorance” (Fischer, 2000), among others. Only collaboration can ensure that knowledge and understanding of the colleague‘s practices, in both directions, emerge. However, this beginning in a real context always requires prior experience or, as seen in Stephanie‘s case, a confident demeanour and „claiming“ understanding through proof. It is quite conceivable that especially in the context of social services exactly this self-confident appearance is usually initially not present. This demonstrates the relevance of participatory approaches as the one used for the research study where the findings introduced here were originated. Involving impaired people is hence extremely important to identify and reduce some of potential barriers, independent if those barriers concern workplaces or social services (Charlton, 1998; Magnusson, Hedvall and Caltenco, 2018; Vollenwyder et al., 2020).

In the context of the development of accessible software, the relevance of the integration of people with impairments has already been recognized and is also increasingly used and perceived successes in recent years (Kane et al., 2014; Vollenwyder et al., 2020; Mack et al., 2021). However, these experiences can potentially be transferred to the creation or improvement of „social services“ if this is to be seen as a development process. Naturally, the outcome is different and the development strategies will differ, nevertheless, we argue that important lessons can be learned from accessible software development in terms of involving people with impairment in design, development and evaluation of accessible social services which can be effectively used by them. Missing knowledge about individual needs of people with specific impairments, which currently often exists in development organisations, could be generated through collaboration. Certain types of barriers could thus be uncovered and eliminated at an early stage. We therefore feel that it makes sense to involve relevant stakeholders in the design of social services in order to raise awareness of the needs and practices of people with impairments by sharing experiences and building on the knowledge of the relevant stakeholders.

Conclusions

The path to work of people with impairments reflects in many areas the barriers also of social services. Differentiated by analogue and digital barriers, people with impairments face similar barriers when pursuing work and using social services. Broadening the view of barriers beyond the social service itself is a relevant broadening of perspective. Without also considering these aspects, the analysis of barriers of social services always refers only to the interaction with people who have already mastered the access up to the social service. However, people who do not gain access to social services in the first place are not considered in the analysis of Oelerich et al. (Oelerich et al., 2019), for example, and thus their needs and requirements for social services are not taken into account.

The results presented in this article, which are based on a qualitative analysis of the barriers to creating and maintaining accessible IT workplaces and the transfer of these barriers to the use of social services, open up a broader view of real barriers for people with impairments in the context of social service use and participation, as our findings highlight, for example, physical accessibility, electronic accessibility, and knowledge about services, and thus makes a valuable contribution to future considerations of „barriers to social services“.

In the future, further work could deal more specifically with the design of social services and ensure that the methodology not only takes into account all relevant groups of people, including people with impairments, but is also incorporated into the conception and design processes. One field could be the targeted application of participatory design methods, which primarily originate from the software sector, to social services. An interesting aspect here would be a socio-technical approach including an appropriation phase in order to evaluate the sustainability and success of the services not only according to functional aspects, but also according to accessibility features.

Another research direction that could be identified here is how to generally sensitize society to the existence of different impairments, thus making dealing with them more natural and tolerant. The examples of the bus driver and the large coordination effort in the office give reason to minimize or avoid such behaviour through education in advance.

Annotations

[1] Fictional name to comply with the confidentiality agreement firmed with participants.

[2] Governments usually refer to a common visual acuity scales, in order to decide whether someone is entitled to receive some benefits from programmes sponsored by it. For instance, the US government use a scale that includes the categories partially sighted, low vision, legally blind and totally blind. How each of these categories are defined usually varies depending on the country. In Germany, for example, legally blind refers to people whose visual acuity is lower than 1/50 (Rohrschneider, 2018).

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