

DIFFERENTLY ABLED AND DIGITAL INCLUSION: ROLE OF DIGITAL MEDIA IN ASSISTING DIFFERENTLY ABLED

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ABSTRACT

The paper differentiates three dimensions of access for digital inclusion: Firstly, digital media are understood as environments that offer multiple channels for interaction between persons with disabilities and their environment. This dimension is challenged by barriers that hinder people to use digital media. Peer support could be understood as a second dimension: Social media can empower people to act as social innovators and help people with disabilities. Barriers are identified in the effort that has to be done or in unsuitable ICT-applications. On a third dimension, the advantages of “space” are explored: Public internet access points can be understood as a “space” that offers ICT access, support for individual needs and competences, facilitated by specialized staff. The high costs, missing political backing and need for competences could be understood as main barriers here. The paper suggests capitalizing on social innovation approaches to design new support instruments for digital inclusion.

Keywords: Digital Media, Social Media, Public Access Point, People with Disability, Empowerment

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Introduction

People with disabilities have the same human rights to live with dignity and self-worth as those without disabilities. Yet, significant cultural, technological, political and economic barriers continue to limit the full societal participation of children and adults with disabilities in the digital age.

The Digital Society

Potentials and Barriers for People with Disabilities Computers are widely accepted as instruments for people with disabilities supporting their ADL (activities of daily living) tasks at home and at work. This is very much supported by the institutional support setting and accepted by people with disabilities. Digital media are entering the everyday life tasks of people with disabilities at two sides: Firstly, digital media are offering support for traditional offline tasks. Examples are digital devices that support communication or orientation. Secondly, with the ubiquity of digital media in every single social sub system (education, politics, economics, health etc), digital media establish a new access mode to societal offers and discourses. The education system strongly builds on ICT mediated learning environments, political decision making is increasingly affected by online discourses and economic procedures are widely transferred into online booking, shopping and selling. This transfer of social routines into digital net-works is supporting the participation of people with disabilities, as certain restrictions are decreased. At the same time, new barriers (accessibility, demand for new competences etc) arise and are about to dig new cleavages between mainstream and disadvantaged persons. It is an information society challenge to shape these environments in a way that persons with disabilities can exercise their rights in the same way than other people. Against this backdrop, this article discusses three access dimensions for instruments aiming at empowering disabled people to use digital media and participate in the digital society.

Networking Dimension

Social Media Besides pure information retrieval from the web and communication by means of telephones combined platforms create new options for information, communication, shared interests, expression of opinions, gaming, entertainment, business etc. Although there exist profound skepticism and criticism with regard to security and privacy of such platforms, they are well accepted and part of the daily lives of very many people. The published numbers of users of the most common networks underpin the widespread acceptance (e.g. Facebook is accessed by 1.19 billion active users every month

as of March 30, 2017. So, obviously for many people advantages of social networks outbalance the reservations. It is interesting to note that technical accessibility of social networks is still an issue which is not fully solved. An approach following the concept of universal design and computers seems to be necessary. A particular problem occurs in Web 2.0 applications, where users create content which does often not address accessibility at all. In user generated content, frequently used media like pictures and videos remain inaccessible. In this respect ATAG 2.01 Part B (candidate recommendation) introduces guidelines how to support authors to produce accessible content. Generally incomplete accessibility in user generated content seems to be more accepted compared to accessibility problems of the platforms and content of the providers. Therefore, the accessibility of the platforms and its content need to follow WCAG 2.02. Unfortunately, further non-technical barriers can be observed for people with restrictions in cognition. Among those barriers range financing combined with the living situation (e.g. in nursing homes), but also related to the content e.g. complexity, difficult language, orientation and navigation options, mass of information, etc. Parts of the problems are obviously related to the online content: the used language is too difficult and not easy to read; controls are ambiguous and inconsistent; websites provide too much content and too many operation options at a time.

Advantages of Information and Communication Technology (ICT) for differently Abled

Digital technologies break traditional barriers to communication, interaction, and access to information for persons with disabilities. The confluence of increasing public and private service provision through Information and Communication Technology (ICT) and the growing number of mainstream, everyday ICTs that can be used as accessible devices is changing the paradigm of technology-enabled development for persons with disabilities. This paper provides an overview of the opportunities presented by the internet and ICT for the full participation of persons with disabilities. Accessible ICT can level the playing field for persons with disabilities across life domains including education, employment, e-governance and civic participation, financial inclusion, and disaster management. However, earlier divides may persist and new divides may be created when ICT-enabled development is not accessible to persons with disabilities, leading to an uneven distribution of benefits. This paper reviews the main challenges to the realization of ICT-enabled inclusive development and presents cost-beneficial policy and practice recommendations for governments and development practitioners.

The first is that the Internet and Information and Communication Technology (ICT) are becoming common and popular channels for the delivery and implementation of governance, welfare, socioeconomic development, and human rights programming (Samant, Matter, and Harniss 2012). They are transforming pathways to poverty reduction by enabling direct interactions between producers

and markets globally, new methods of delivering personalized public and social services quickly, different channels for income generation, and innovations in asset accumulation and 4 access to finance (Omole 2013; Spence and Smith 2010). The internet also enables multiple channels to access and contribute information, with a global reach, which can improve transparency, accountability, and monitoring of development programs and services. Multiple delivery channels are being used for communication and service delivery including email, text messaging, voice communications, and video. The second is that a growing number of mainstream, everyday ICT such as mobile devices and desktop computers increasingly offer functionalities that facilitate communication and information access for persons with disabilities. Features such as text-to-speech and voice recognition, ability to change contrast and color schemes, touch and gesture input, and screen magnification which in the past required specialized standalone software and hardware are embedded within off-the-shelf ICT devices. Digital technologies enable persons with disabilities to receive information and content in the format that they can perceive and prefer. For example, a person with visual impairments can use speech-to-text functionality or software to read a website, a person with hearing impairments can use SMS or instant text messaging to communicate, and a person with mobility impairments can use voice recognition to operate and navigate their digital device.

The ICT opportunity for persons with disabilities ICT enables the use of multiple means of communication - voice, text, and gestures - to access information and engage with others, and hence can help to address longstanding barriers of communication and interaction. ICT is clearly identified as an enabler in the Convention on the Rights of Persons with Disabilities (2006) (hereafter the CRPD), the first human rights treaty specifically addressing the rights and needs of persons with disabilities (Lord, Samant Raja and Blanck, 2012). The CRPD which came into force in 2007, has been ratified by 152 countries as of March 12, 2015 (UN Enable 2015).

There are numerous examples in literature of ICTs driving learning and literacy for students with disabilities (Starcic and Bagon 2014; Trucano 2005). The World Bank and the Republic of Tunisia's Ministry of Social Affairs, Solidarity and Tunisians Abroad collaborated on the e-Disabled Project which used ICT to improve literacy and social inclusion of students with disabilities.

Conclusion

The internet and ICT can facilitate the social, economic, and civic participation of persons with disabilities. The use of multiple ICT channels to deliver services and multiple formats for the content delivered can allow persons with different disabilities to access information and communication in the manner in which they can comprehend and prefer. The internet and ICT are becoming a key driver of inclusive development because of their growing pervasiveness in the delivery of public and private services coupled and the increasing ability to use everyday consumer ICT devices as assistive devices.

The adoption and use of accessible ICT for inclusion is dependent on many actors in the ecosystem including government service providers, educators, employers, development practitioners, and the ICT industry. Efforts should focus on raising their awareness and building their capacity to successfully implement barrier-free digital environments and service provision. It is imperative that ICT enabled development programs become accessible, else the internet and ICT will become another source of marginalization and exclusion for persons with disabilities.

1. Paraguay, A.I.B.B.: eInclusion: Policies and Concepts Regarding Persons with Disabilities – Considerations about Brazil and Portugal. In: Stephanidis, C. (ed.) Universal Access in HCI, Part I, HCII 2011. LNCS, vol. 6765, pp. 507–516. Springer, Heidelberg (2011)
2. Kaletka, C., Pelka, B., Diaz, A., Rastrelli, M.: eScouts: Intergen-erational Learning in Blended Environments and Spaces (ILBES) for social inclusion. In: European Distance and eLearning network (EDEN) (Hrsg.), Conference, June 6-9. Book of abstracts, Porto (2012),
3. United Nations: The Convention on the Rights of Persons with Disabilities, CRPD (2008), <http://www.un.org/disabilities/default.asp?navid=13&pid=150>
4. Busemann, K.: Wer nutzt das Social Web? Ergebnisse der ARD/ZDF-Onlinestudie 2013 in Media Perspektive 7-8/2013 Frankfurt am Main (2013),
5. Bühler, C.: Universal Design - Computer. In: Stone, J., Blouin, M. (eds.) Center for International Rehabilitation Research Information and Exchange (CIRRIE): International Encyclopedia of Rehabilitation (2010).
6. Berger, A., et al.: Web 2.0 barrierefrei. Eine Studie zur Nutzung von Web 2.0 An-wendungen durch Menschen mit Behinderung. Aktion Mensch e.V. Online verfügbar unter, Bonn (2010), http://publikationen.aktion-mensch.de/barrierefrei/Studie_Web_2.0.pdf Google Scholar

7. Schaten, M., Lexis, M., Roentgen, U., Bühler, C., de Witte, L.: User Centered Design in Practice – Developing Software with/ for People with Cognitive and Intellectual Disabilities. In: Assistive Technology: From Research to Practice, AAATE 2013, pp. 815–822. IOS Press (2013)
8. Boschma, R.A.: Proximity and Innovation: A Critical Assessment. *Regional Studies* 39, 61–74 (2005)
9. Rissola, G., Garrido, M.: Survey on eInclusion Actors in the EU27 (2013), <http://ftp.jrc.es/EURdoc/JRC84429.pdf>
10. Lohrmann, L.: Trans eFacilitator comparative report (2013),
11. Pelka, B., Kaletka, C.: eFacilitators: Functional Hybrids between ICT Teaching and Community Management. In: Deitmer, L., Gessler, M., Manning, S. (eds.) Proceedings of the ECER VETNET Conference 2012: Papers Presented for the VETNET Programme of ECER 2012 at Cádiz, September 18-21. EERA Network: 02. Vocational Education and Training (VETNET), Wissenschaftsforum Bildung und Gesellschaft e.V, Berlin (2012a),
12. Howaldt, J., Schwarz, M.: Social Innovation: Concepts, Research Fields and International Trends. In: Henning, K., Hees, F. (eds.) Studies for Innovation in a Modern Working Environment - International Monitoring, vol. 5, p. 2011. Eigenverlag, Aachen (2010).
13. Howaldt, J., Kopp, R., Schwarz, M.: Social innovations as drivers of social change – Tarde’s disregarded contribution to social innovation theory building. *Social Frontiers. The next edge of social innovation research* (2014)