Assessing similarities and gaps in aging and disabilities: Towards better Assistive Technologies

Chairs: Maria Maia (Institute of Technology Assessment and Systems Analysis) and Erik Thorstensen (OsloMet)

Historically, ATs have been associated with disability and have often shunned by the ageing population, but the pervasiveness of technology in modern life suggests this has changed for both older people and respective caregivers. Nowadays, the connection between ATs for an ageing population as well as disabilities is often made. Society has witnessed the rapidly increasing need for assistive devices and services as people continue to live longer, irrespective of their health conditions and functional status. This is translated by a high demand for ATs provision, as they play an essential role to ensure older people's dignity and autonomy. Viewing these technologies as relevant only to disabled people is not an adequate approach.

ATs can enable older, disabled and impaired people to remain healthy, active and independent as long as possible. Thus, they should be accessible for everyone, independently of their age and functional limitations and should be recognize the important role in achieving healthy and functional ageing.

Following the Convention of the rights for people with disabilities, the United Nations is now working on a proposal for the Convention on the Rights of Older Persons. Likely to be the next major human rights treaty adopted, it will need to tackle existing barriers, already identified for people with disabilities, namely the need to reflect attitudinal changes into laws and regulations to address the specificities of care for older people and to raise awareness on elderly people needs and preferences. Also, goals to improve accessibility and equality for persons with disability can best and most cost-efficiently be achieved by leveraging both assistive and mainstream technologies for independent living.

In this session, we will address the similarities and gaps of ageing populations and disabilities and we will reflect on what lessons can be learned from the fields concerning the role and use of ATs. Some aspects to be addressed can be for instance: user-centred product design and development, universal design, unmet needs, accessibility, issues of stigmatization and stereotypes, inequalities and challenges for the different users' groups.

Furthermore, this session intends to bring together researchers that can share practical examples and conceptual approaches of the empirical field of such assessments on how these findings can be integrated into scientific and public debates.

The value of technologies: Setting Ageing and Assistive technologies in comparison

Authors: Linda Nierling and Bettina-Johanna Krings (Institute of Technology Assessment and Systems Analysis)

In a huge variety of applied research projects, technical solutions play an important role in the context of ageing societies. Often specific imaginaries of elderly persons are apparent ranging from "active agers" who should be supported in their active life by specific technologies to "frail elderly" persons which are co-surveyed or co-controlled by technologies. What is often neglected is the

specific value – support or stigma – technologies can have for the person who uses it, in active and/ or care stage of life. Technologies, thus, play a different role depending on the specific group, the specific person, the specific use they are dedicated to. However the specific value or connotation – supporting for an active engagement in life or compensating bodily defects – are often not considered when reflecting on technologies in the context of ageing societies. In this paper, these framings of technologies for the elderly are enriched by the debates on technologies in disability studies. For people with disabilities, technologies in general are strongly welcomed and play a central role for them, e.g. in the fields of education and employment. However, the role technologies play and how they are framed is subject of intensive debates in the community, especially discussing whether a medical or social connotation comes with its implementation and use. Often, there is the call to consider technologies as "mainstream", contributing to living a "normal" life rather than framing them as medical support, which is interpreted rather as stigmatization. In this paper, based on the comparison of the two different user groups the need to reflect on the value-leadenness and the context-relatedness of technologies for the elderly will be outlined.

Accessibility of assistive technologies as a factor in the successful realization of the labor potential of persons with disabilities: Russia's experience

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The paper considers the accessibility of assistive technologies as a factor in the formation and realization of the labor potential of persons with disabilities. For Russia the topicality of this issue is confirmed by the low level of employment of persons with disabilities. The analysis is based on the data from a comprehensive sociological study of the situation of persons with disabilities on the Moscow labor market carried out in 2018. It includes a mass survey of more than 1,000 persons with disabilities; expert survey of 5 expert groups - leaders of societies of persons with disabilities; employers; heads of rehabilitation centers and vocational education institutions; employees of non-governmental organizations engaged in employment of persons with disabilities; content analysis of information from 17 electronic and print media. In addition, there were used the data from a study carried out in 2017, that included a mass survey of visitors to the city employment service, as well as an expert survey of the heads of district departments of the Moscow Employment Service. The accessibility of assistive technologies was considered from four angles: accessibility of the education system, the urban environment, the environment in enterprises and the workplaces. It will be proved that the situation with the accessibility of assistive technologies is rather controversial. Although there are signs of progress, still, there are serious problems in each of the four aspects considered. These are: inclusive education insufficiently provided with resources, urban environment being still far from accessible, insufficient effectiveness of encouraging employers to create adapted jobs, high cost of modern assistive technology for persons with disabilities, and irrational budget expenditures due to the specifics of the system of public procurement.

Improving access to arm and leg prosthesis in Germany – perspectives from HTA and RRI

Authors: Martina Baumann and Maria Maia (Institute of Technology Assessment and Systems Analysis)

Limb amputation is often related with age-associated diabetes and vascular diseases, however older aged prostheses users are not the only segment of prosthesis users. When it comes to preferences

and needs there are several factors influencing the choice of a prosthesis by its user: individual factors play a major role such as age, general fitness of the user, utility given to the prosthesis (usage for daily basic tasks, work, sports…), aesthetics preferences or risks acceptance for certain kinds of prostheses (invasive control mechanisms).

In Germany, most of prostheses users have access to this medical device via health insurances frameworks for reimbursement. However, this regulatory framework may, especially for older people, represent a hurdle to access and in some cases reimbursement decision are finally negotiated in social courts.

Denied access to prosthesis is usually defended with arguments of eligibility and economic feasibility, often not considering quality of life gains by its user, namely inclusion and participation in social life and work, psychological well-being and human dignity and self-esteem. For this reason, most of the social court decisions are in favor of the potential user as insurances arguments are non-conform to the Social Code Book and disability rights. The issue of a "just" reimbursement of limb prostheses is thus an important social and ethical issue that should be carefully analyzed.

Based on the work being developed in the project INOPRO we want to cover this subject and look at medical devices assessment (health technology assessment) in Germany, which could provide a basis for priority setting and informed decision-making on resource allocation. For this purpose, we are conducting expert interviews with insurances, prosthesis developers, care providers, users and regulatory/medical aid evaluation bodies, in order to discuss regulatory and practical changes, needed to make reimbursement more acceptable and accessible to all stakeholders.

Our presentation will focus on the results retrieved from these interviews that will help us to provide some guidance on how current prosthesis assessment (HTA approach) can be improved in order to avoid distributive injustice and new kinds of social inequalities and discrimination. In addition, this analysis will also make reference to the Responsible Research and Innovation perspective, which aims at a more reflective, inclusive (deliberative) and responsive processes.

Assessments of Assistive Technologies: From how to where (and so what?)

Author: Erik Thorstensen (OsloMet)

Often the question regarding assessments of assistive technologies has been posed as a question of how to assess novelties in a given context. There are a range of methodologies that emphasize the correct or the good procedures for these forms of assessments. Based on experiences and research from a recent project, the Assisted Living project, I wish to enter more into detail on what happens if one moves from how to assess to where to assess such assistive technologies.

At different stages in the Assisted Living project, researchers have conducted interviews and sessions with different stakeholders and potential users in the field of assistive technology. During a series of focus groups with health professionals in Oslo, we found tendencies towards framing technologies' main function as being orientated towards safety and well-being. This framing was especially strong when it came to technologies provided by public authorities whereas private technologies tended to be framed as orientated towards communication and autonomy. In addition, potential users of assistive technologies similarly tend to value solutions that enhance communication and autonomy (and these might be the same devices that health professionals see as addressing safety and well-being).

In a different strand of interviews with decision-makers in assistive technologies, interviewees argued that there is a need for structured value debate among health professionals in order to achieve a better integration of assistive technologies into the services, but also to achieve the (often) disparate goals of assistive technologies that consist in increased well-being, increased quality of life and reduction in health costs.

Health professionals, often serving as gatekeepers with a professional ethos to introduction of assistive technologies, are then expected to take on multiple roles in assistive technologies. The presentation will discuss possibilities, limits, preconditions, consequences, and potentials of focusing assessments on this stakeholder category in public innovation processes, with references to thinking in Responsible Research and innovation.

Responsible innovation and technology assessment in social welfare organizations

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The usage of innovative technology is increasing in all kind of organizations. To assess how the deployment of such technologies is in accordance with human values is an important factor for its success. Especially, in welfare organization and social work human values are of great importance, as welfare organizations and social workers support people of vulnerable groups, such as the elderly, disabled people or children. Therefore, social welfare organizations and social work base their work on explicit norms and human values (IFSW, 2014). In line with their responsibility they are especially predestinated to assess innovative technologies in terms of human values.

Especially, the usage of assistive technology could be of great impact for social welfare organizations as some of the goals of assistive technologies are similar to the goal of social welfare organizations and social work like to "address life challenges and to enhance wellbeing" (IFSW, 2014). Therefore, it seems to be consequential for social workers to use more assistive technology, but at the same time they have to be aware of unintended consequences of such a usage. An intensive RI and TA could be of great impact to be aware of possible unintended consequences and aim to minimize them (Grunwald, 2010).

However, systematic concepts about the assessment of technology in such organizations are rare. In this paper I aim to outline an idea how to use the basics of RI and TA to assess innovative technologies in social welfare organizations. In accordance with the four dimensions "anticipatory, reflective, deliberative and responsive" of responsible innovations (Owen et al., 2013) I will discuss how they could be adapted for usage in innovation processes in social welfare organizations. The goal is to include all affected people of the innovation process in its development and to design the process in terms of transparency and democracy. During the innovation process the focus is on the specific human values of the organization as well as on the assessment of the innovation/technology in the light of those values.

As social welfare organizations are a practical field where human values are of practical importance and an integral part of the whole organization, its self-conception and its personal services, it should be of great interest for RI and TA researcher to work with social welfare organization during the process of technology assessment and to investigate the process of innovation and technology implementation in social welfare organizations. Such a cooperation should add value to the research of RI and TA researcher, to the development and deployment of innovative technology, to the personal services of social welfare organizations and should be a gain for the society.