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"Break the Barriers, Design the Future"

Research and Development in ICT for better Inclusion of People with Disabilities

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Abstract

Information and Communication Technologies (ICT) are changing society. They enter into all aspects of our lives. They are disruptive in a sense that they question established structures and thinking in all domains where ICT gets used – and it is used everywhere. It provokes paradigmatic changes and establishing new socio-economic structures. This offers in many ways new possibilities and potentials and is of course also in many ways risky and provokes concerns.

People with disabilities are one of the groups where ICT shows a very high potential. **Assistive Technologies** get available allowing almost all people with disabilities to overcome or compensate their functional limitations. These new methods and skills can be used in particular for interaction and communication with the standardize **Human-Computer Interface (HCI)** which is used interacting and using almost all systems and services in our environment. All traditional interfaces more and more merge and use the standard HCI and thereby, traditional barriers, which lead to exclusion for people with disabilities can be addressed with the same principles of **Accessibility** known in the ICT context and W3C/WAI's WCAG2.1. This AT/Accessibility/ICT interplay forms a new method and provides a universal tool for facilitating and advancing inclusion. When the 21st century is named the information age, accessibility for all, including those with disabilities using AT, has to be named its fundamental human right, as expressed in the UN-Convention for the Rights of People with Disabilities.

But technology itself is never a solution. Disability is a social construct and embedded in personal and environmental factors, which have to be taken into account to exploit the enormous potential we get at hand.

This talk will

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a)outline this fundamental role of AT/Accessibility/ICT for inclusion,
b)discuss the legal, social and economic implications, in particular related to the EU/Austrian context
c)structure a comprehensive agenda for scientific research and development needed for a user-driven implementation of eInclusion
d)include some examples of R&D and work of supporting students with disabilities at university using an accessible ICT/AT infrastructure.

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