

Organisational Overview: Institute for Design and Assessment of Technology, Vienna University of Technology (TU Wien)

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The *Institute for Design & Assessment of Technology* (IGW) is part of the Faculty of Informatics at the Vienna University of Technology and is historically comprised of two groups: *Multidisciplinary Design* and *Human Computer Interaction*, which also includes the *Centre for Applied Assistive Technology*. The institute is highly interdisciplinary, within a traditional computer science faculty. Members come from various backgrounds, enabling us to merge technical engineering and social sciences research with people-centred design. The Institute includes 35 employed faculty/researchers/students and over 10 associated PhD students, engaged in 30 projects funded by the EU and national funding agencies, and supported by administrative staff (Fig. 1).



Fig. 1. Members of IGW at an inter-group workshop in 2014.

The *Institute* can look back on more than two decades of research about end-users' participation, acceptance and adoption of new technologies, their motivations and experiences, and about ethics and the social impact of information and communication technologies. Our research is grounded in understanding the challenges of everyday contexts and our contributions are technical, theoretical and practical. We have particular expertise in mobile, tangible and sensor-based technologies and in applying participatory and co-design approaches, with access to cutting-edge technologies, such as eye-trackers, 3D printers, laser cutters and electronics labs. The groups of IGW are

united by a commitment to put technology in the service of people, that is, all design activities are initiated with people and contexts in mind.

We complete the second half of this overview by outlining each group's specialties and highlighting exemplary research projects.

The *Multidisciplinary Design Group* studies work practices and organization to design supporting technologies. Besides design thinking, the major intellectual work of the group is to achieve a deeper understanding of (collaborative) work practices and technology in use, e.g., in health care, architecture/urban planning, and other professional contexts. In the project *TOPIC*¹, the group seeks to offer a platform for informal carers' cooperation with formal carers by improving, integrating, making mobile multimodal communication easier and accessible.

The *Human Computer Interaction* group covers a broad agenda including: exploratory design, games design, information visualisation evaluation (in the Laura Bassi project, *CVAST*²), selfcare/healthcare, health/wellbeing, social interaction, older people, sustainability and local communities. Much of our research explores alternative approaches to more technology-driven agendas. An example is the *Give & Take*² project, exploring an ICT platform to enable senior citizens to reciprocally exchange services in their local communities. The *Outside the Box*² project, similarly steps back from the deficit-oriented view of much assistive technology work to explore possibilities with autistic children to create technologies that are fun and meaningful to the child.

The *Centre for Applied Assistive Technology* (AAT) designs and builds assistive technologies, not exclusively but mainly, for elderly people. The group runs an AAL laboratory for close-to-real-life user-centred research. An example project is *Hobbit*³, which focuses on assistive robots and is currently running final trials in older people's homes in three EU countries. The robot designed and built as the project's outcome supports older people in living independently and hence aging well at home. AAT also has ethics expertise around these technologies.

¹ <https://media.tuwien.ac.at/project/>; <http://www.topic-aal.eu/>.

² <http://igw.tuwien.ac.at/hci/index.php/projects>; <http://givetake.eu/>; <http://outsidethebox.at/>.

³ <http://www.aat.tuwien.ac.at/de/project.html>; <http://hobbit-project.eu/>.