

## Adding universal design in ICT student curricula

Norway – Oslo and Akershus University College of Applied Sciences

### SUMMARY OF PROJECT

The project aims to promote knowledge on universal design principles in ICT among undergraduate and graduate students. This is achieved through research on universally designed healthcare technology, intersectional perspectives on web accessibility, and learning and research methods. The research and teaching focuses on identifying barriers that people with disabilities encounter when using ICT systems and services.

### QUOTE

*"We educate, innovate, and create new knowledge in universal design to promote equal access to ICT for everyone."*

—Ms. Weiqin Chen, Oslo and Akershus University College of Applied Sciences

### FACTS & FIGURES

- Enrolment of students in 2013–2015: 12 (83% international); in 2014–2016: 20 (75% international); in 2015–2017: 25 expected. The first six students graduated from the programme in 2015.
- The research group consists of 12 people, including one professor, five associate professors, four assistant professors, and two PhD students.
- Of the six graduates who have completed the programme, three are employed.

### PROBLEMS TARGETED

The Universal Design of ICT programmes attempts to promote equal opportunities for all persons by removing barriers to the use of ICT through raising awareness, creating new knowledge and ensuring competent ICT professionals. The program adopts the United Nations Convention on the Rights of Persons with Disabilities (UN CRPD) as a guide for implementation. Universal design relates to accessibility – enabling persons with disabilities to live independently and participate fully in all aspects of life.

### SOLUTION & METHODOLOGY

The project uses active learning approaches to ensure that all students studying technology gain knowledge on the universal design of ICT. Active learning involves student-centred teaching methods

and adaptive and individualized support. At the graduate level universal design is a requirement for all technology students; in order to graduate from the Master's programme, technology students must conduct applied research in the area of universal design as part of their thesis. The faculty and students also cooperate with regional, national, and international stakeholders, such as NGOs, government agencies, businesses, and other research and educational institutions. The programme actively recruits students from around the world with diverse social, cultural, and educational backgrounds. This approach enriches the scope and quality of the programme and provides an opportunity for students to act as ambassadors of universal design. In order to increase the rate of employment of the graduates, NGOs, government agencies, industries, and disability organizations are actively involved in both undergraduate and graduate projects.

### OUTLOOK & TRANSFERABILITY

Projections indicate that enrolment will continue to increase over the coming three years. In addition, efforts will be made to reduce attrition and increase employment rates among graduates. The faculty continues to expand: in 2015 three full-time permanent positions were awarded in addition to several contract positions. The programme can be cost-effective and easily implemented in other countries. The primary recommendation is to make computer science education interdisciplinary and collaborative. In most contexts, the funds already exist, and implementation becomes a matter of overcoming institutionalized biases and utilizing expenses in a different way.

Photo: Yes

### CONTACT

Oslo and Akershus University College of Applied Sciences (HiOA)

Mr. Weiqin Chen

Norway

[www.hioa.no](http://www.hioa.no)

+47 67238671

[weiqin.chen@hioa.no](mailto:weiqin.chen@hioa.no)

tags: universal design, ICT, university and higher education