

## **EUROPE LEADS THE WAY IN EYE GAZE COMMUNICATION**

Every year more than 100 000 people are diagnosed with motor neurone diseases. Typically, even when all other ways of communicating are either severely damaged or completely lost, the eyes still function. Communication by Gaze Interaction (COGAIN) is a Network of Excellence designed specifically to help people with these disabilities to communicate more effectively with eye gaze.

Current eye tracking equipment allows users to generate text on a computer by using eye gaze. Users are able to select letters and numbers by looking at a keyboard on a screen with their eyes, and can construct words and sentences that can be spoken aloud by the system. Using these systems both empowers and enables people with disabilities as they can now communicate without the need for an assistant or helper, giving the users greater freedom in their lives.

Eye tracking systems that allow text entry by eye gaze have been in existence for about two decades, but the technology is still only available to a small portion of the potential user population. Obstacles for more wide-spread use currently include: the high cost of eye tracking equipment, the limitation that gaze communication applications may only work with a particular dedicated eye tracking device, and finally that eye tracking devices are often hard to use and require experts to operate them.

The COGAIN consortium (members of which are listed below) is formed from cutting-edge research groups and companies who have joined forces for a common goal: empowering people with disabilities. There are over 100 researchers in the Network of Excellence. The project aims to make research results and commercial solutions known and available, at an affordable cost, to the user community. The five-year project has received 2,9 million euros from the European Union and was launched in a kick-off meeting in September in Finland.

The coordinator of COGAIN, Kari-Jouko Rähkä, Professor of Computer Science at the University of Tampere, said: “We are excited with this Network of Excellence which we believe can lead to real advances in eye tracking technology and applications for people with disabilities. We hope this project will also lead us to mainstream applications that would benefit all. COGAIN believes that assistive technologies are most successful when they provide applications that are both empowering and fun to use, and this is one of our main aims.”

The following twenty organisations from Europe and Japan are involved in the COGAIN project:

Finland	University of Tampere (coordinator)
Denmark	Bisbebjerg University Hospital Danish Centre IT University of Copenhagen Risø National Laboratory Technical University of Denmark
Germany	Dresden University of Technology University of Koblenz-Landau University of Lübeck
Italy	Hewlett-Packard Italiana Politecnico di Torino
Japan	Tokyo Institute of Technology
Lithuania	Siauliai University
Sweden	Permobil AB Tobii Technology AB
Switzerland	University of Zurich
UK	ACE Centre De Montfort University University of Cambridge University of Derby

In addition the consortium aims to expand, and will be inviting new potential partners to join via an open call in the Internet sites of the Sixth Framework Programme.

For more information please contact

COGAIN Network Coordination Office  
e-mail: [office@cogain.org](mailto:office@cogain.org)  
web: <http://www.cogain.org>