Federal Department of Economic Affairs, Education and Research EAER State Secretariat for Education, Research and Innovation SERI

Swiss Confederation



Brief overview

The ability to use language to express oneself and to communicate sets humans apart from all other species. To date, there is still much we do not know about the evolutionary origins of language, the biological prerequisites and their development. At the same time, language is undergoing profound changes in the light of technological advances and digital transformation. This has social, psychological and evolutionary consequences that are still barely understood. New digital possibilities, ubiquitous online knowledge databases and developments in the field of artificial intelligence are changing the way in which language is used and learned, and how it will develop in the future.

The Evolving Language National Centre of Competence in Research (NCCR) is researching the evolution of language more broadly than any other research centre to date. The NCCR is using an interdisciplinary approach bringing together research groups from the humanities (linguistics, philosophy), biology, neurosciences, psychology and computer sciences. Researchers are focusing on three issues: firstly, the dynamics of language structures and their evolution; then the biological prerequisites for language, including the related question of whether and how neurotechnologies could or should be used to influence language capabilities; and lastly, the social meaning of language and how it is likely to change with new means of communication. The NCCR promises innovations and transfer services in medical fields (e.g. diagnosis and treatment of speech disorders) and in the application of digital instruments (human-machine communication, artificial intelligence, complex voice recognition).

The NCCR is based at the University of Zurich (primary home institution; 17 research groups) and at the University of Geneva (second home institution; 10 research groups). The national network also involves three research groups at the University of Neuchâtel, two research groups at the ETH Zurich, two research groups at the EPF Lausanne, as well as a research group at the universities of Basel, Fribourg and Lausanne. The artificial intelligence research institute IDIAP (Institut Dalle Molle d'intelligence artificielle perceptive, Martigny) is also involved in the project with two research groups.

Further information http://www.isle.uzh.ch www.sbfi.admin.ch/nccr-e

Facts and figures

Total funding: CHF 34.6m (2020–2023) Federal funding: CHF 17m (2020–2023)

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Home institutions (number of groups)
University of Zurich (17)
University of Geneva (10)

Network (number of groups) University of Neuchâtel (3) ETH Zurich (2) EPF Lausanne (2) IDIAP, Martigny (2) University of Basel (1) University of Fribourg (1) University of Lausanne (1)