

CCI
CENTRE FOR COGNITIVE INFORMATICS

CENTRE FOR COGNITIVE INFORMATICS (CCI)

CCI has been set up as a centre for research in cooperation between Risø National Laboratory and Roskilde University. The centre has two interrelated research objectives. The first is to conduct research on the problems which arise at the interface between humans and advanced information technology. The second is basic research in cognition. This basic research supports the more application-oriented research on the human-machine interface.

CCI was established in 1991 with support from a grant from the National Programme in Informatics and Information Technology under the Ministry of Research and Education. CCI comprises the Cognitive Systems Group of Risø National Laboratory and the Centre for Cognitive Science of Roskilde University.

A large part of CCI's research is being financed by Danish and international research programmes. Research is done in close contact with other national universities and research institutions. In addition, CCI has research contracts with organisations and private companies.

CCI is headed by Professor Niels Ole Bernsen (Dr. phil., Director), Leif Løvborg, Risø (M.Sc., Head of Section, the Cognitive Systems Group) and Associate Professor Brynja Svane (Dr. phil., Head of Centre for Cognitive Science).

CCI has an academic staff of about 25 people with research backgrounds in cognitive psychology, engineering, linguistics, computer science, sociology and work analysis, mathematics, information science and systems analysis.

CCI's activities are followed by an advisory committee including representatives from research and private business.

ADDRESSES

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COGNITIVE SCIENCE AND THE INTERFACE BETWEEN HUMANS AND MACHINES

Increasingly advanced computer systems have become a natural part of contemporary work and leisure. This imposes entirely new demands on the design of systems as well as on their users. It is therefore mandatory to achieve a better understanding of the interface between humans and machines in parallel with the development of new technologies.

Cognitive science investigates the processing of information underlying intelligent behaviour and action. This research contributes to the design of advanced information technologies as well as to the discovery of principles for the design of usable and efficient information technology. Such research is highly interdisciplinary.

RESEARCH ACTIVITIES AT CCI

Research at CCI ranges from the development of IT system prototypes to basic research in human reasoning, communication and language understanding. Systems and concepts are developed for, i.a., cooperation via computer networks, simulation of medical work contexts, and dialogue with users in spontaneous speech. CCI's multimedia laboratory provides an environment for the development of experimental interfaces to IT systems in different work contexts. Human cognitive processes are modelled and simulated using a range of techniques. The cognitive processes of operators and other users of advanced information technologies are analysed for the purposes of training and systems development.

DISSEMINATION AND TRAINING

CCI disseminates results and information through workshops for researchers and partners in collaboration, an electronic news service, a newsletter, several publication series and a comprehensive lecturing programme. Ongoing research projects constitute an excellent framework for Ph.D. training. On CCI's initiative, a Ph.D. training programme has been established in cooperation with Copenhagen University, the Technical University of Denmark and Copenhagen Business School.

COOPERATION WITH SECTORIAL RESEARCH, BUSINESS AND PUBLIC ORGANISATIONS

In a number of collaborative R&D projects, CCI's experience in the cognitive aspects of the human-machine interface has proved to be an important complement to technological R&D, adaptation of systems to end-users, systems evaluation, and the training of personnel.

CCI has a continuing interest in establishing collaboration with sectorial research, business, and public organisations in fields such as: introduction of information technologies in companies and organisations, task and work analysis, development and evaluation of systems and interfaces, decision support systems and computer-supported communication and cooperative work.

NATIONAL AND INTERNATIONAL RESEARCH PROJECTS

CCI is at the moment coordinating or participating in 9 international projects in basic and applied research, technological development, training, technology transfer and re-use of

software resources. At the national level, CCI coordinates or participates in three framework programmes financed by three research councils.

The participation in national and international research programmes serves to strengthen CCI's position in European research. CCI has contacts with about one hundred research institutions in Europe as well as with institutions in the U.S. and Japan. This comprehensive network affords many opportunities for exchange of knowledge and expertise with researchers around the world.

INDSÆT KORT OVER ROSKILDE, DER VISER RUC OG RISØ I FORHOLD TIL LUFTHAVN osv.