



CIHISI VIRTUAL INTELLIGENT SPACE FOR COLLABORATIVE INNOVATION

Principal Investigators: Kristiina Kumpulainen, Petri Myllymäki, Riitta Smeds

The CIHISI project researches communication and knowledge co-construction processes in virtual teams, and studies how modern ubiquitous technologies can be used to support innovation and co-creation of knowledge in business and educational settings.

The project develops and tests several prototypes of web-based virtual spaces for collaborative innovation in an iterative manner. Utilizing a user-centered approach, the project aims to support human interaction and collaborative knowledge creation with novel, intelligent technologies. The project explores how adaptive and personalized technology works as an enabler in learning and innovation processes, encouraging creativity and self-expression among individuals. It produces new knowledge on how individuals from different backgrounds interact, communicate and collaborate in virtual spaces to co-construct knowledge and to create innovations.

The research project will have several scientific and practical outcomes impacting both science and society:

- New scientific knowledge on models and principles for supporting technology enabled innovation processes in virtual teams, in industrial and academic settings
- Experimental research knowledge on creation of virtual collaboration spaces, innovation facilitating technologies, and their design
- Practical experience on user requirements for virtual collaborative innovation spaces, students' collaboration and learning in virtual teams, and inter-company innovation in virtual teams
- Dissemination of acquired knowledge through doctoral dissertations, journal articles, scientific conferences, books and software demonstrations
- Intensive international and national research collaboration
- New improved technologies for virtual collaboration and innovation, distributed as open-source software

The CIHISI research consortium is highly multi-disciplinary and includes researchers with background from computer science, information technology, education and behavioral sciences, interaction design, linguistics and communication, as well as industrial engineering and management sciences.



KEY PUBLICATIONS TO DATE:

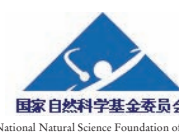
- J. Perkiö and P. Myllymäki, *Magrathea: Building and Analyzing Ubiquitous and Social Systems*. In *Proceedings of the 2009 IEEE/WIC/ACM International Conference on Web Intelligence*.
- Kumpulainen, K., & Renshaw, P. (2007). *Cultures of Learning. A special theme issue. International Journal of Educational Research*, 46(3-4), 109-115.
- Smeds, R., Pöyry-Lassila, P., Pyykkö, E. and Korpela, L. (2008) *Virtual Process Simulation for Teaching Networked Innovation*. In Johann Riedel, Priya Johal, Riitta Smeds and Jens Ove Riis (Eds.) *Learning and Evaluation in Manufacturing, Innovation and Networking. Proceedings of the 12th IFIP 5.7 Special Interest Group on Experimental Interactive Learning in Industrial Management*. Centre for Concurrent Enterprise, Nottingham University Business School, Q3 Digital/Litho, UK. pp. 21-28.

CONTACT:

Kristiina Kumpulainen, kristiina.kumpulainen@helsinki.fi, +358 (0)40 3487670
 Patrik Floreén, patrik.floreen@cs.helsinki.fi, +358 (0)40 5700444
 Petri Myllymäki, petri.myllymaki@cs.helsinki.fi, +358 (0)40 5531162
 Riitta Smeds, riitta.smeds@tkk.fi, +358 (0)9 47023640

www.visci.fi

Programme web pages: www.aka.fi/motive



国家自然科学基金委员会
National Natural Science Foundation of China



ACADEMY OF FINLAND
RESEARCH FUNDING AND EXPERTISE