



PRO-VE 2022

23rd IFIP/SOCOLNET Working Conference on Virtual Enterprises
Collaborative Networks in Digitalization and Society 5.0

Special Session on Dynamic interplay of Humans and AI in collaborative networks

Scope

Collaborative networks are more and more becoming AI-integrating environments. AI-based agents co-account for collaborative functions such as information sourcing, planning and decision-making, risk assessment or quality management. They are attributed the capability to act as increasingly independent, self-directed and, in specific cases, even as some kind of a social entity. However, from a human factor perspective, whatever makes AI-based systems being perceived as intelligent, smart, efficient, helpful or even social, may on the one hand lie in the eye of the beholder and may on the other hand be influenced by a complex set of variables and determinants. These influences are e.g. technical interface design, actual physical presence of AI-based agents or systems, algorithms' capabilities or non-technical aspects like e.g. human's experience with technology-enabled collaboration and decision making. In addition, the cultural setup as well as more complex demands regarding sustainability issues within collaborative value creation networks frame humans' perceptions of the collaborative AI. This understanding of an AI-integrating collaborative network, which can be determined by a dynamic interplay of humans' and AI-based systems' capabilities, brings up both, well known and new questions about how to understand and conceptualize trust, leadership, competence, learning, performance, sustainability as well as accountability in these highly dynamic socio-technical settings – to mention just a few possible fields of interest.

Based on the above outline this special session about the interplay of humans and AI-based systems in collaborative networks is aiming to provide an interdisciplinary platform for researchers and professionals with the objective to share and discuss latest experience, novel insights and explorations that address the above outlined topic. We are as well inviting innovative approaches and critical reflections about the mutual relationship of Humans and AI. Thus, with this special session we also seek to contribute to a better understanding about how to manage and open up Human-AI boundaries in order to enable and support further enhancement of sustainability of collaborative networks. In particular, we are looking for contributions that consider, but are absolutely not limited to, the following topics:

- Transformation of work systems and (re-)design of socio-technical systems as AI becomes “social”
- Human perceptions and acceptance of AI-based agents in work and societal settings
- Human competences enabling or supporting a constructive Human-AI collaboration
- Human performance issues from a Human Factors Engineering (HFE) perspective
- Conceptions, measurements and effects of Human-AI heterogeneity/diversity
- Decision-making in AI-integrating collaborative networks
- Variations and effects of transforming data relations in Human-AI interaction (i.e. audio in – video out).

A mix of theoretical studies, empirical insights and applied cases would allow us to move forward in establishing research based best practices in AI-integrating collaborative networks.

Session Organizers

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Topics/ Keywords

- Human factor in collaborative networks
- Human-AI Collaboration
- Human-AI boundaries
- Collaborative Socio-Technical (Work) System
- AI-based agents & systems for collaborative networks
- AI-supported decision making
- Human-AI interface design
- Human-AI performance

Submission procedure

Special sessions are included in the main Conference and follow the same reviewing process.

Short abstracts submission (100-150 words): March, 19th, 2022

Full papers submission: April, 16th, 2022

Acceptance Notice: May, 28th, 2022

Final version Submission: Jun 11th, 2022

Acceptance of papers is based on the **full paper** (Technological development and case application papers up to 8 pages and Foundational Research papers up to 12 pages). Each paper will be evaluated by three members of the International Program Committee.

When submitting on the web site, you have to indicate the name of the special session.

Submission procedure via EasyChair available on: <http://www.pro-ve.org>, with copy by email to the chairs of the special session.