V. Conclusion

The paper describes a conceptual and technological design of a novel class of environments, providing means for human-machine collective intelligence for decision support. The proposed environment is rooted in modern research in ad hoc team coordination and ontology-based smart spaces technology.

The core of the proposed environment is an ontology-based representation of the decision-relevant information that can be processed (and augmented) by both human and machine participants. The ontology-based representation is built via the combination of natural language processing and GUI-based nudging participants to precisely connect information to the ontology-structured description. The integration of software services is implemented with a help of ontology-based smart space technology.

The proposed environment can be used for decision-making support in a variety of domains characterized by high levels of uncertainty and dynamics (emergency and natural disaster response, government and business scenarios).

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