

Call for Papers - Special issue "Adaptation in Spatial Communication"

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Motivation and Scope

Spatial communication is a type of pragmatic communication, taking a variety of forms: from verbal or pictorial descriptions and depictions to instructions for agents about actions required to interact with their environment. People adapt their communication in form and content to the situation and communication partner dynamically during communication by reacting to changing situations.

Today's spatial assistance systems (e.g., car navigation systems and internet route planners) lack this flexibility. The identification and presentation of the relevant data to humans remains relatively crude and the structure of the communication processes is often based on ad-hoc observations and vague assumptions about the users' needs. Consequently, such systems are experienced as awkward, cognitively inadequate or patronizing.

This special issue covers research advances pertinent to informed design of spatial assistance systems and present state-of-the-art research results. It aims at issues and open questions in adaptation in human spatial communication and emerging principles for human-machine spatial communication. The main objective is to draw parallels between human-to-human communication and human-machine interaction in order to inform further research, design and development towards adaptive spatial assistance systems. The key interest is in exploring the avenues to improve automatic processes that implement adaptive behavior in assistance systems and services.

We solicit contributions from researchers with interests in spatial cognition and communication and researchers in the field of artificial intelligence, location based services and human-computer interaction and related areas. Contributions may address any communication modality, i.e., visual, text/speech, gestures, and combinations thereof. Questions targeted in the special issue include, but are not limited to:

- Empirical findings supporting the development of adaptive communication behavior in artificial systems;
- Comparative studies of spatial communication forms and their content;
- Investigation of communication strategies, including pragmatic spatial communication theories;

- Implementation of these strategies for communication adaptation (including targeted modalities and forms);
- (Spatial) representations and data structures for adaptive spatial communication behavior;
- Applications showing adaptive communication behavior;
- Empirical studies illustrating the power of adaptive spatial communication in systems and services.

Important dates

12.10.09 Deadline for submissions to the Guest Editors

18.12.09 First notification of authors

01.02.10 Revised versions due

15.03.10 Final notification of authors

Guest Editors

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