**NexComm 2013 – Tutorial Proposal**

**Title**  
Requirements Meet Interaction Design

**Instructor**  
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**Short bio-sketch**  
Hermann Kaindl joined the Vienna University of Technology in Vienna, Austria, in early 2003 as a full professor. Prior to moving to academia, he was a senior consultant with the program and systems engineering division of Siemens Austria. He is a Senior Member of the IEEE, a Distinguished Scientist member of the ACM, Fellow of the IARIA and a member of the AAAI and the INCOSE, and is on the executive board of the Austrian Society for Artificial Intelligence..

**Previous tutorial experience**  
Previously, I held tutorials at CAiSE’00, RE’01, RE’02, HICSS-36, INCOSE’03, RE’03, CADUI-IUI’04, INCOSE’04, RE’04, HICSS-38, IRMA’05, INCOSE’05, AAAI’06, HCI’06, OOPSLA’06, HICSS-40, CONSIS’07, INCOSE’07, AAAI’07, IFIP Interact’07, OOPSLA’07, HICSS-41, ICCGI’08, RE’08, ICSEA’08, ICIW’09, Interact’09, SMC’09, HICSS-43, ACHI’10, ICSEA’10, TdSE’10, HICSS-44, SAC’11, INCOSE’11, AAAI’11, RE’11, HICSS-45, SAC’12, ACM CHI’12, PROFES’12, BCS HCI’12 and APSEC’12..

**Topics**  
When the requirements and the interaction design of a system are separated, they will most likely not fit together, and the resulting system will be less than optimal. Even if all the real needs are covered in the requirements and also implemented, errors may be induced by human-computer interaction through a bad interaction design and its resulting user interface. Such a system may even not be used at all. Alternatively, a great user interface of a system with features that are not required will not be very useful as well.

So, the main topics of this tutorial are requirements and (communicative) interaction design, as well as their joint modeling through discourse models and ontologies. Our discourse models are derived from results of human communication theories, cognitive science and sociology (even without employing speech or natural language). While these models were originally devised for capturing interaction design, it turned out that they can be also viewed as specifying classes of scenarios, i.e., use cases. In this sense, they can also be utilized for specifying requirements. Ontologies are used to define domain models and the domains of discourse for the interactions with software systems. User interfaces for these software systems can be generated semi-automatically from our discourse models, domain-of-discourse models and specifications of the requirements. This is especially useful when user interfaces for different devices are needed. So, requirements meet interaction design to make applications both more useful and usable.

**Prerequisite knowledge**  
The assumed attendee background is primarily some interest in requirements engineering or user interfaces. There are no prerequisites such as knowledge about any of the results of Human Communication theories, Cognitive Science, Sociology or HCI in general.
Related publications of the proposer


the 41nd Annual Hawaii International Conference on System Sciences (HICSS-42), Big Island, HI, USA, 2008, IEEE Computer Society Press.