The Value of the Human Touch: Human-Computer Interaction for Value Co-Creation in Business and Computational Systems

Prof. Dr. Jasminko Novak
Fachhochschule Stralsund

Approaches such as interactive value creation, crowdsourcing, human computation or gamification involve customers or general users as task-solvers contributing to the creation of different forms of value in business processes or computational systems. Interactive value creation combines customer knowledge with company intelligence to solve tasks that are hard for business organizations but easy for customers (e.g. finding out personal preferences of individual customers to create personalized products and services for large numbers of customers). Human computation and games-with-a-purpose combine machine and human intelligence to solve tasks that are hard for computational systems but easy for human users (e.g. semantic interpretation of multimedia content). While these two classes of approaches are commonly addressed as separate kinds of problems, investigated by very different research communities, they also share important structural similarities. In this talk, I will show how both kinds of approaches can be conceptualized as collaborative systems in a way that can inform the design of effective interactive systems and human-computer interfaces to support them. I will present a theoretically grounded and empirically evaluated conceptual design framework that integrates knowledge from HCI, CSCW and IS disciplines into a generalized model of human-human and human-computer value co-creation. I will present prototypical implementations illustrating the application of this model to the development of interactive systems for value co-creation in several application domains, such as cooperative travel advisory, social analysis of historical multimedia collections and fashion trend analysis from social networks. In doing so, I will focus on the challenges and lessons learned regarding specific HCI aspects that can impact the success of such models (e.g. hedonic stimulation), the role of underlying interaction technologies to support them (e.g. large displays, mobile devices) and the different kinds of “value of the human touch” that can emerge from such models of user involvement in co-creative business and computer systems.