u^b

CSLS-Vortrag vom 23. Mai 2012
Unitobler, Lerchenweg 36, 3012 Bern
18 Uhr, Raum F -121

Strategies for imitation and innovation in social networks

Prof. Dr. Robert Goldstone
Indiana University

We have developed various internet-based experimental platforms that allow groups of 2-200 people to interact with each other in real time on networked computers. I will describe experiments using this platform that explore how people attempt to solve simple problems while taking advantage of the developing solutions of other people in their social network. In one series of experiments we study the dissemination of innovations in a networked group for a multi-dimensional search problem with many local minima. In a real-world extension of this work, we study how parents in the United States name their babies. Using a historical database of the names given to children over the last century in the United States, we find that naming choices are influenced by both the frequency of a name in the general population, and increasingly by its "momentum" in the recent past. By this momentum bias, names which are growing in popularity are preferentially chosen. Across both laboratory and real-world studies, we find evidence for several strategies for determining whether to imitate or innovate based on: similarity, choice popularity, timing, and success. We also describe the effect that these individual-level choices have on group-level outcomes such as diversity, problem space coverage, and overall group performance.