

Abstract Submitted  
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**Modeling self-organization of communication and topology in Social Networks** KIM SNEPPEN, Niels Bohr Institute — We introduce a model of self-organization of communication and topology in social networks with a feedback between different communication habits and the topology. To study this feedback, we let agents communicate to build a perception of a network and use this information to create strategic links. We observe a narrow distribution of links when the communication is low and a system with a broad distribution of links when the communication is high. We also analyze the outcome of chatting, cheating, and lying, as strategies to get better access to information in the network. Chatting, although only adopted by a few agents, gives a global gain in the system. Contrary, in a system with too many liars a global loss is inevitable.

References: M. Rosvall and K. Sneppen. “Modeling self-organization of communication and topology in social networks.” *Phys. Rev. E* 74:16108 (2006)

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