Online social networks are increasingly popular as a means to establish identities, create relationships, and share content and information. With the emergence of powerful mobile devices that enable wireless ad hoc communication, it is time to extend social networking to the mobile world. Such an ad hoc social networking environment is full of opportunities, and social networking applications can be deployed in a delay-tolerant manner using opportunistic social contacts as in a peer-to-peer networks and content recommendation engines.

The Prose project is a collective and multi-disciplinary effort to design opportunistic content sharing schemes in such mobile environments. This includes the characterization of the environmental conditions, the usage constraint, and the algorithmic and architecture principles that can be leveraged to push social networking applications to nomadic usage in opportunistic networks.

Example: SAFEBOOK
Decentralization through a P2P architecture where cooperation is enforced by leveraging on users’ real-life trust

CONCLUSION AND PERSPECTIVES
PROSE initiated a multidisciplinary approach to studying content sharing in opportunistic mobile and social networks. Through a behavioral study we have seen that indeed social network activity in mobile environments is a realistic scenario. We have proposed mechanisms for sharing and consistency in this environment and have proposed a privacy-preserving decentralized social network.

In the future we will consider how the dynamicity of the mobile environment and of the social networks affects our mechanisms. We will also investigate on how trust and influence in social networks can be leveraged for efficient content dissemination. Analysis of real network data and experimentation on real social and mobile networks will be carried out.