

Epistemic Protocols for Distributed Gossiping

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Gossip protocols aim at arriving, by means of point-to-point or group communications, at a situation in which all the agents know each other secrets. We consider distributed gossip protocols, building upon the recent work of Attamah, Van Ditmarsch, Grossi and Van der Hoek. These protocols are expressed by means of epistemic logic.

We provide an operational semantics of such protocols and set up an appropriate framework to argue about various aspects of their correctness. Then we analyze specific protocols both for a ring and for complete graphs.

This is a joint work with Wiebe van der Hoek and Davide Grossi.