THE WILD WEST OF ANONYMOUS COMMUNICATION

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POINT-TO-POINT

Snail Mail ©

Distributes physical messages without proof of identity. High latency limits scalability.
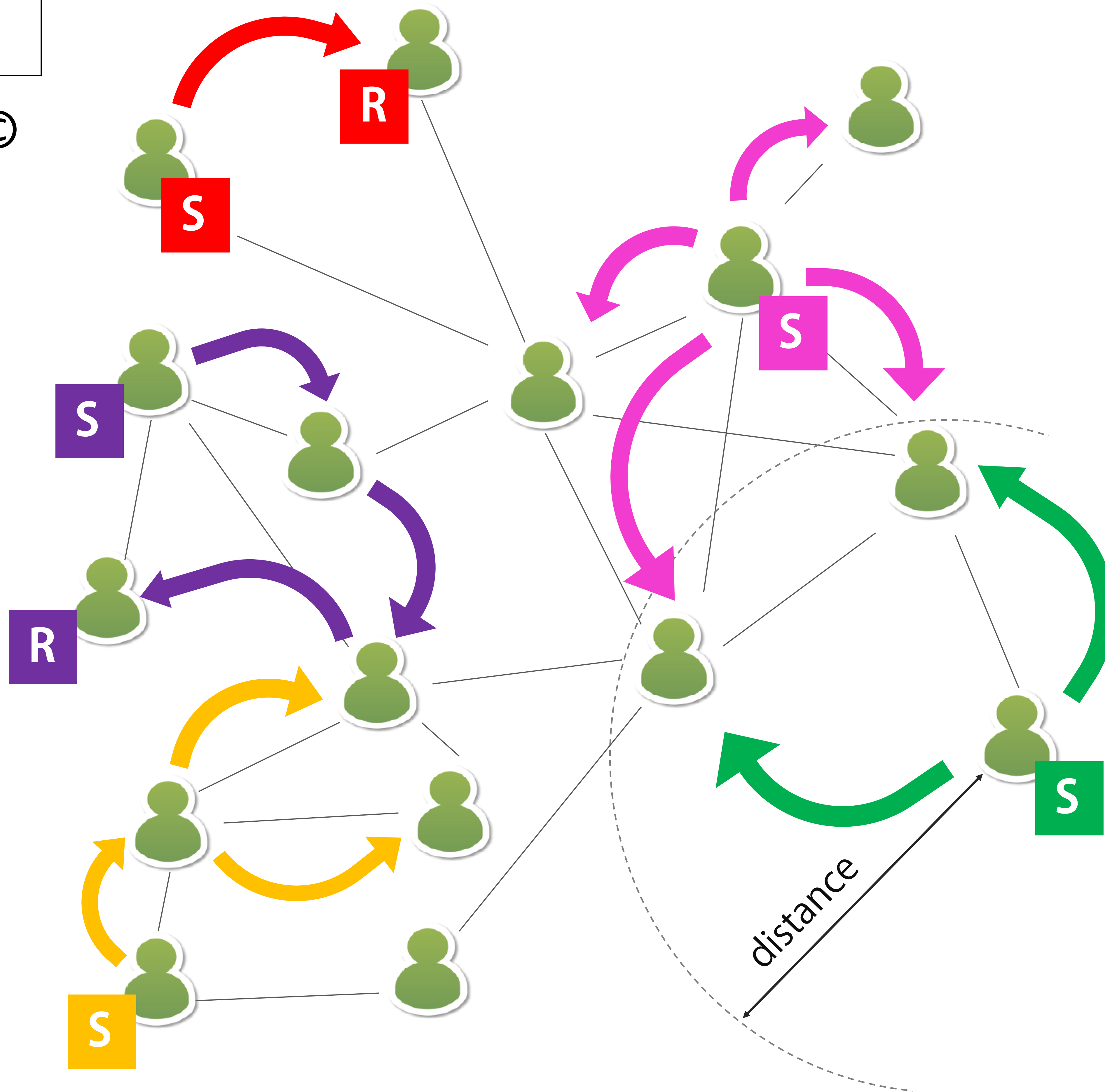
Tor Crowds Tarzan OneSwarm

Routes messages through proxy servers before delivering them to the recipient. Timing-based attacks can compromise anonymity.

[Dingledine 2004, Reiter 1998, Freedman 2002, Isdal 2010]

© Centralized

— Social graph

S Sender

R Receiver

BROADCAST

© Secret © Rooms

Passes messages to social contacts without authorship information. Centralized infrastructure compromises anonymity.

© Yik Yak © Whisper FireChat

Passes messages to geographically close neighbors. Triangulation leads to deanonymization.

DC Nets

Gives information-theoretic anonymity guarantees, but is susceptible to "badactors." Not widely deployed.

[Chaum 1988]

Wildfire

Strong anonymity guarantees with distributed spreading.

distance

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