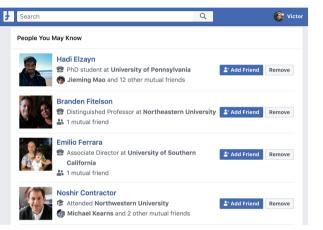
Fighting Opinion Control in Social Networks via Link Recommendation

Victor Amelkin (University of Pennsylvania) and Ambuj K. Singh (UC Santa Barbara)

• Link recommendation in online social networks: maximizing link acceptance likelihood – *local goal*



• Strategic link recommendation with a global goal?

Problem

strategically recommend links to recover
eigencentrality-weighted average user opinion
in a network from external attacks on user opinions

(*technically:* optimizing a function of eigencentrality vector by strategically adding edges to the graph)

- Many other applications
 - boosting node subset eigencentrality / PageRank
 - "viral marketing" via link recommendation

• To Learn More

- poster session: research track poster 128 (Aug 6, 7-9:30pm, Eklutna Hall)
- strategically link me on facebook (victor.amelkin)
- all paper-relevant materials:

https://victoramelkin.com/pub/diver/



Contributions

theory

 how a function of eigencentrality changes in response to link addition to the network

algorithms

- efficient selection of links for recommendation
- efficient estimation of "nodes' relative centrality"