Bad Actors in IR

• Search Engine Optimization
  – Can be good
  – Can be bad

• Fake News
  – And other fake content

• Bots acting as human
  – Fake content
  – Fake behavior

• Others?
What is a Bot?

- Automated program interacting with a system designed for humans
  - Interact through interface provided by humans
- Can be benign
  - Information gathering agents
  - Accessibility
- Can be malicious
  - “A hijacked or adversary-owned account controlled by software” (*Boshmaf et al. Computer Networks 2013*)
  - Misrepresent information
  - Click fraud
- Where would deep web search fall?

Modern Click Fraud

- Honathan Crussel, Ryan Stevens, Hao Chenc
  [MAdFraud: Investigating Ad Fraud in Android Applications](#)
  MobiSys’14
- Srijan Kumar, Francesca Spezzano, V.S. Surahmanian
  [Identifying Malicious Actors on Social Media](#)
  ASONAM’16