Enabling Agency in a Cyber-Mediated World

Agency includes at least individuals, institutions, and computer programs. It is distributed, dynamic, and not binary.
Grand Challenges

1. Ensure social media as a trustworthy forum for public discourse
   – Transparency (algorithms and sources)
   – How to make a neutral platform?
   – Also, search engine and recommender systems?

2. Detecting and controlling insider threats while maintaining agency and autonomy
3. Empower users to define and make security decisions that are visible, controllable, and understandable (Usable/Seamless security)
   – Usability requires agency
   – How to communicate the consequences of security actions
   – How to design socially intelligent systems (vs.
     • The ability to reason and think
   – Support social intelligence to encourage better security behavior
   – How can we make cybersecurity visceral similar to physical world? E.g., cues from the environment
4. Re-thinking/Creating regulations for an age of distributed agency

5. Cyber Conflict
   – Attacker/defender ambiguity
   – Attribution of attacks (related to agency)
   – Disrupting escalation patterns