

Calendar and Readings (July 7)

Lecture 1

I've decided to spend a bit more time covering economics. In some sense, there will not be as strong parallels to information security in today's lecture. However, many of the later topics will implicitly or explicitly depend on some of the economics issues we'll discuss today. We will cover the "tragedy of the commons" problem, as well as the "prisoner's dilemma" problem, and the idea of network externalities.

Lecture 2

I will try to cover a broad overview of hacking. Hacking breaks just about all of the information security principles. While it is hard to calculate the economic impact of hacking, our increasing reliance on computer systems makes the fear of hacking, especially as an unknown, so much greater.

The readings for today are from two of the best known names in information security. Cliff Stoll wrote one of the most captivating (and true) stories of espionage, intrigue, and cat-and-mouse, called the Cuckoo's Egg. At several hundred pages in length, it is too long for me to assign. But in many ways I find it as exciting as any John Le Carré thriller! I hope that some of you will be encouraged to go ahead and read the full account of Cliff's adventure. The second piece is by Spaf, one of the information security giants in academia. Spaf's CERIAS (Center for Education and Research in Information Assurance and Security) lab is one of the oldest in the United States, and covers an amazingly broad spectrum of disciplines involved in cybersecurity. It is also one of the few successful stories of academic institutions being effectively interdisciplinary.

Reaction paper assignment

Cliff Stoll and Eugene Spafford paint a particular picture of hacking and of hackers. In particular, both describe a sense of being violated, and of a "loss of innocence" as a result of the hacking. Two "modern" hackers are Bradley/Chelsea Manning (it might be easiest to refer to Manning as a "he" rather than as a "she", as the hacking occurred while Manning was a "he") and Edward Snowden. If you do not remember either of these individuals, just Google them. While many villainize both of these individuals, Manning regularly gets nominated for the Nobel peace prize, and many consider Snowden a whistleblower. Write a one-to-two page paper in which you consider how these "modern" hackers and the hacking they did are similar to and/or different from the hackers and hacking described by Stoll and Spaf. In particular, you may wish to consider how their intentions may have been different from Morris or from Stoll's German hackers, or perhaps how they are portrayed in the media. How might you defend and attack what Manning and/or Snowden did from a utilitarian or deontological perspective?