

Some Interesting Books

Computer security is not merely a technical field. Knowing about people, and about societies, guides the application of the technical material. During this class we'll often refer to an eclectic collection of books that teach lessons we can apply to computer security. These are some referred to in past classes, plus a few other favorites.

This list was compiled by Tom Walcott, a former TA for ECS 153, with a few additions by Matt Bishop. Any other suggestions welcome!

Non-Fiction Books

- Saul Alinsky, *Reveille for Radicals*, Vintage Books
The classic analysis of organization for social improvement. Many of the techniques Alinsky discusses can be adapted to attacking systems—or defending them.
- Saul Alinsky, *Rules for Radicals*, Vintage Books
How the Have-Nots can organize to change society. Like Alinsky's other book, the rules are applicable to computer security.
- James Bamford, *The Puzzle Palace*, Viking Press
A book on the history of the NSA.
- James Burton, *The Pentagon Wars*, United States Naval Institute
A study of how a group of reformers tried to test and improve some weaponry, and what happened. A wonderful and eye-opening description of bureaucratic in-fighting.
- Dorothy Denning, *Information Warfare and Security*, Addison-Wesley Publishing Company
Good background on issues we will discuss in class, nice presentation. Mentions some Matt Bishop guy.
- Jean Guisnel, *Cyberwars: Espionage on the Internet*, Plenum Press
An interesting non-US perspective written by a Frenchman.
- Jeffrey Hunker, *Creeping Failure*, McClelland & Stewart
Discusses the security of the Internet infrastructure and software in general.
- David Kahn, *The Codebreakers*, Macmillan and Co.
The definitive history of cryptography. Excellent perspectives, and discussions of how cryptography works in a non-mathematical way.
- Steven Levy, *Crypto*, Penguin
An interesting book chronicling the interaction between the government and non-government cryptographers since the twentieth century.
- Niccolò Machiavelli, *The Prince*, Penguin Books
Its study of rulers applies not only to princes, but also to organizations and environments in general.
- Nicholas Rankin, *Churchill's Wizards*, Faber and Faber
Deception played a key role in World War II, and the British were masters of it.
- Bruce Schneier, *Secrets & Lies*, John Wiley and Sons
Schneier examines the digital world that permeates our lives, and how security plays into it.
- Sun Tzu, *The Art of War*, Delta
A classic text on warfare; many of its principles can be translated into cyberwarfare.

Fiction Books

- Alfred Bester, *The Demolished Man*, Vintage Books
The struggle between the killer Ben Reich, the 24th century's richest man, and Lincoln Powell, the police prefect with ESP, is like a cat-and-mouse game between an attacker and computer security folks. This classic science fiction book won the first Hugo for Best Novel. Bester was named a Grand Master of science fiction.
- John Brunner, *The Shockwave Rider*, Ballantine Books
A science fiction novel about a future in which data about everyone is stored in a ubiquitous information network. Many of the terms used with malicious logic, such as worm, were first used here.
- Eric Frank Russell, *Wasp*, Tor Books
A science fiction novel in which a lone agent is dropped on an enemy planet. His job: cause chaos. He does.
- John Scalzi, *Redshirts*, Tor Books
An amusing riff on *Star Trek*, conflating reality with a TV show's world.

- Neal Stephenson, *Cryptonomicon*, Avon Books
Good discussion of World War II cryptography, and real world/wartime issues involving security of communications, etc. Great mathematical perspective.
- Neal Stephenson, *Snow Crash*, Spectra Books
Okay, this one's more marginally computer security related, but it has a virtual reality interface figuring prominently into the plot, and deals with issues of networking through metaphor.
- Vernor Vinge, *Fire Upon the Deep*, Tor Books
Superb science fiction book with computer security applications.
- Vernor Vinge, *True Names*, Tor Books
First real cyberpunk book; Gibson got credit for this sort of work.