Computer Science 1401: Lecture #8

The Hacker Mystique

THE HACKER MYSTIQUE: THE IMAGE

THE HACKER MYSTIQUE: THE REALITY

THE HACKER MYSTIQUE AT THE MOVIES:
Hackers (1995)

The Hacker Mystique: The Image

WarGames (1983)

The Hacker Mystique: The Image (Cont'd)

Sneakers (1992)

BlackHat (2015)

The Hacker Mystique: The Image (Cont'd)

Mr. Robot (TV) (2015–)

The Hacker Mystique: The Reality

MIT Tech Model Railroad Club (TMRC) (mid-1950s)

The Hacker Mystique: The Reality (Cont'd)

PDP-1 with Teletype

MIT AI Laboratory (early 1960s)

The Hacker Mystique: The Reality (Cont'd)

- With arrival of TX-0 and PDP-1 computers at the MIT AI lab in 1959 and 1960 as well as first undergraduate courses in computer programming, first hackers emerge from TMRC Signals & Power Subcommittee.

- Early hackers share austere set of core values, i.e.,

  - Dedication to solving problems ("Code 'till you drop");
  - Intensity and focus while solving problems;
  - Curiosity about technical system details;
  - Beauty (Commitment to technical complexity and elegance of solutions); and
  - Purity (All solutions available to anyone for free).

- Rigors of hacker ethic resemble those of religious orders; also induce side effects in some hackers, e.g., lack of sleep, bad diet, poor personal hygiene, arrogance.

The Hacker Mystique: The Reality (Cont'd)

- With increasing availability of minicomputers in academia in mid to late 1960s, hacker cultures emerge outside MIT, e.g., Stanford AI Laboratory (SAIL).

- Core aspects of hacker ethic are retained but often moderated, e.g., SAIL focus on gentle fantasy rather than rough adversarial gaming (Adventure vs. SpaceWar).

- As hackers leave academia, hacker ethic percolates into citizen projects, e.g., Community Memory (Lecture #6), and industry, e.g., late 1970s West Coast computer games companies.

- Hackers emerge in general population courtesy of PC and Internet use explosion starting in the early 1980s.

The Hacker Mystique: The Reality (Cont'd)

Robert Morris (1965–) Kevin Mitnick (1963–)

- Hacking goes public starting in late 1980s with high-profile prosecutions for accidental (Morris Worm (1990)) and planned (Mitnick (1988, 1995)) computer disruptions.

The Hacker Mystique: The Reality (Cont'd)

- With ever-increasing computer and network usage, criminal and government (see Lectures # 4 and 7) hacker subcultures have emerged; are now unfortunately focus of hacker coverage in media.

- Terms for different types of hackers have emerged based on primary activity (**cracker**) and technical maturity (**script kiddie, guru**).

- Arguably most important distinction is guiding purpose:
    - **Black Hats**: Work for criminal or malicious purposes.
    - **Gray Hats**: Perform illegal acts to impress friends and/or gain technical knowledge.
    - **White Hats**: Work to create beneficial systems and/or expose flaws in existing systems so they can be fixed.

The Hacker Mystique: The Reality (Cont'd)
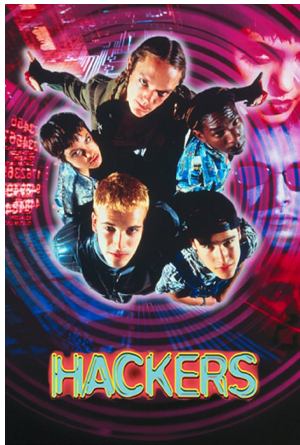
Notable White Hats:

Steve Wozniak (1950–)
Co-founder of Apple

Linus Torvalds (1969–)
Creator of Linux

The Hacker Mystique At The Movies: *Hackers* (1995)

- Inspired by concerns over increasing number of Internet-related hacking incidents and arrests starting in late 1980s.
- Portrays hackers as hip cyber-grundgers living on the fringe of society ("Their only crime was curiosity").
- Focuses on Gray and Black Hats.
- Over-the-top presentation highlighting pounding soundtrack and visuals.

Computing Movie Cliches
(#4 in a Series)

Miraculous Projection Phenomenon*: Ability of apparently normal computer, TV, and movie screens to project their images onto the face of an actor. In extreme cases, the audience is able to read the crisply focused words from a computer screen directly off an actor's face.*
*   - Richard Rohrdanz (in Ebert (1994))*