## AMICAL

DIGITAL HUMANITIES AND CYBERSECURITY

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#### Digital Humanities

Curation and analytics of materials in the humanities library

Critical analysis of all things digital ...

• ... Including human-computer interaction

• ... Impact of "the Internet" on humanity

• ... And the humanities

#### The Internet

World-historical phenomenon that shapes and is shaped by paradigmshifting technological and market transformations with profound impact on law, society and culture.

#### Protocols

 Two particular aspects distinguish the technology that undergirds the Internet

- Packet-switching
  - More efficient and effective form of communication
- Simple and open protocols
  - TCP/IP
  - "dumb" network upon which all form of content can be structured

#### Tableau Rosa

 Success of the Internet relies in part on the agnostic nature of the protocols

- These protocols do not distinguish between "good" or "bad" storage, transmissions or content
- Internet becomes a canvas upon which we can throw the totality of our representations and behaviors of humanity

#### Homo sum, humani nihil a me alienum puto

- Part of our fascination with the Internet ...
  - We throw ourselves upon this canvas with varying degrees of selfconsciousness
  - While we watch, observe, record, comment and react to interactions that in physical space may be unconscious, go unobserved, or exist without scrutiny
  - Including, if not especially, the most depraved aspects

#### Security, or the lack thereof ...

- Standard Definition
  - Availability, integrity and confidentiality of data and information
- Old but meaningful saws
  - "I can make anything secure if I can lock it down, but it will no longer be available!"
  - "In a network system, security is only as good as the weakest link."
  - "Humans are the weakest link!"

### Janus-face of Security

- As a technical matter, information management, which incorporates information security, privacy, regulatory compliance and risk management, is a necessary and integral component of digital humanities as it is all areas of research and teaching missions.
  - Integrity of the research material
  - Availability of network systems, computing and collections for research and instruction
  - Confidentiality for regulatory compliance, privacy and autonomy of academic enterprise
- A bulwark against the forces of evil on the Internet ...

## Three Principal Types of Cyber Security Attacks

- Advanced Persistent Threats (APTs)
  - Nation-state attacks in an undeclared cyber war globally
    - China, Russia, North Korea, United States, Israel, Iran are the most frequently mentioned countries known to participate in state-sponsored cyber warfare.
- International Organized Crime
  - Identity theft, false I.R.S returns, money scams perpetrate a many multibillion dollar enterprises
- Hacktavists
  - Intentional security breaches for political purposes
    - Wiki-leaks, Anonymous, Aaron Schwartz

## Technology-Security-Privacy Corporate Activism

- Apple iPhone Case
  - Supremacy of technology in the form of encryption that allows no exceptions to personal access
    - Addressing individual fears of intrusive governments and consumer privacy
    - Displacement of legitimate concerns?
  - Creation of evidence-free zones
    - Unprecedented development in the history of U.S. law enforcement
  - Payback for the alleged overreach of U.S. in electronic surveillance
    - Displacement of legitimate concern?
  - Undue burden on corporation to create access
    - Question of fact now moot with the case but access achieved provides clues to outcome
  - Due process
    - Public trust in balance of privacy and security in law enforcement

#### Legal Issues as Cultural Comment

 What is the practical meaning of security in contemporary global society?

The metaphorical meaning?

 What does this conversation about security tell us about the nature of the human condition?

 How is it the same, how is it different, from Republic Rome and the Age of Terence?

### The Many Meanings of Security

- The role of technical security in the history of the networking
  - Evolution over time and relationship to administrative and physical forms that surround it.
- In institutional settings, information security as a foundational component of risk management.
  - Translated into functionality that supports academic missions
- Legal and cultural issues that have emerged from the technology environment
  - Telling reflection on this larger canvas that is the Internet

# Global Internet Governance (or the lack thereof ...)

The truest challenge to Internet security.

With consumer privacy being enshrined in encryption, government electronic surveillance now a "balance" of privacy and security, and the very viability of our missions resting on an undeclared cyber war among nation-states, further undermined by organized criminals and vandals who claim political ends for illegitimate means, security has become not merely a technical fixture in this world-historical phenomenon called the Internet but a meme, a symbol, a metaphor for our times.

Wherefore – and its underlying why for -- digital humanities to interpret this temporal condition for us?