

Challenges & Clashes in Cyberspace: Part I

- * **1st: Where did it all begin, and *why*?**
- * **E-democracy; the Net & empowerment**
- * **Email/IM and the nature of work**

The Internet's beginnings (RH-09)

- Event on 4 Oct. 1957 that jolted the American public, RAND, and the Pentagon?
- Why did the idea of Soviet space domination *scare* us?
- What group did the DOD create, and for what specific purpose?

- Specifically, what did the Pentagon ask RAND to analyze?
 - So why not just rely on the *current* phone system?
 - What kind of network did Paul Baran (of RAND) propose?
 - In non-technical terms, how would it work?
- What was ARPA's contribution to this effort?
- Who *else* was interested in high-speed computing?
 - DoD/ARPA willing to fund: but expensive! must SHARE!
 - But SHARING will mean ...what?

Three main Research thrusts:

- Connecting to supercomputers via a ***decentralized, packet-switched*** network.
(ARPA creates ARPAnet in 1969 with 4 *nodes*.)
- How can completely different types of computers exchange data packets?
- How to send messages between 2 *different networks*?

(Milnet was created for military users;
two networks)

- Answer?
 - Vinton Cerf & Robert Kahn
 - TCP/IP software:
 - Transmission Control Protocol
 - converts messages into **packets**; reassembles later
 - Internet Protocol
 - transports the packets across *different* nodes and across *different* networks.
 - Became the standard
- 1970s and 80s:
 - More and more networks spring up, and interconnect ... Worldwide!

So who runs the Internet?

- No one central **authority**.
- A truly collaborative, collective enterprise.
- A complex, self-organizing system influenced by market mechanisms, government agencies, and users.
- Handful of organizations that are influential: examples, *just for culture*:
 - WWW Consortium
 - Internet Engineering Task Force
 - Internet Engineering Steering Cmte
 - Internet Society
 - InterNIC
 - ICANN



Clashes

- Why are *domain* names so important to organizations?
 - If you want to learn more about Compaq computers, what would you type in the location box?
 - Cybersquatting and trademark infringement
 - Cases
 - Parody sites also sucked into squabbles ***
 - WHAT's the CONFLICT here? ('social libertarian' view?)
 - www.cherieblair.org
 - www.icann.org *Dispute Resolution Policy*
 - Legislation: 1999 Anti-Cybersquatting Consumer Protection Act (buried in a huge spending bill)
 - www.icann.org/registrars/accredited-list.html

- What about generic names?
 - Why so valuable? \$\$\$\$\$
 - loans autos business books news beauty
 - Let's visit some.....
 - Auctions: www.GreatDomains.com

The Web's beginnings (RH-09)

- 1990
 - CERN (European Laboratory for Particle Physics)
 - Tim Berners-Lee: For information sharing
 - 1993: general public discovers the Web!
- A high-profile example of a hypertext:
 - *Resource retrieval* system of linked computer-based documents that allows a user to **click** on a region (**anchor**, or **hyperlink**) to obtain another document, or go to another part of the current document.
 - **Click:**
 - **Hypermedia** form:

- Three basic Web standards that allow Web software to *locate & display* info:
 - URL
 - HTTP
 - HTML (and XML)
- On the Web, documents are called *pages*.
 - Does that seem peculiar?
 - Where have we seen this kind of nomenclature before? Why do you think Web designers did this?

E-Democracy, empowerment

Visions and goals for the "NII":

- **Government:** economic development; competitive
- **Military:** data-gathering; command & control
- **Communications industry:** entertainment & consumption
- **Multinational corp's:** sales, financial transactions
- **Educators:** the world as classroom; collaborations
- **Citizen activists:** strengthen democracy & civil society; keep citizens informed & involved
- **Individuals:** socializing; self improvement; citizenship; productivity; fun; escapism

“The National Information Infrastructure holds great potential for improving quality of life for all Americans by transforming the way Americans work, learn, and live.

It will also create new opportunities for Americans to communicate, provide, receive, and exchange information of all kinds, and actively participate in the political process.”

Challenge has been: how to structure the NII so that it produces the *maximum amount of social good.*

Important digression:

- What is meant by the “**civil society**”
 - *Non-commercial* space; that part of our collective lives that is **NOT** a part of the **business marketplace**, **institutionalized religion**, or **government**.
 - Examples?
- Examples of our **common** public interests?
- The **public interest principle**
 - Setting aside part of the public wealth for the public good. (Through taxes, regulation, non-discriminatory pricing, etc.). **EXAMPLES?**
- Keep these ideals in mind when we discuss ‘public’ vs. ‘private’ space, free speech, etc...

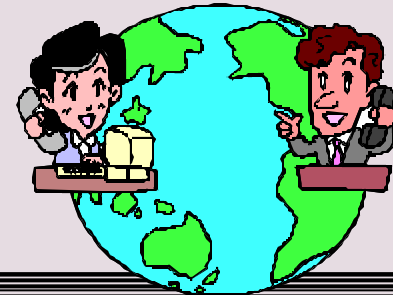
Is the Net changing the nature of democracy? How does it empower groups and/or individuals?

For the final exam, you should be able to discuss intelligently, in a long essay, the essence of the readings provided in ER-06 (*up after midterm*):

- Identify the main controversies that the authors present.
- Examine the arguments they provide for each side of the controversy.
- Provide illustrations wherever you can.

(Try to integrate the ideas in the articles where they relate.)

GOOD STUFF!



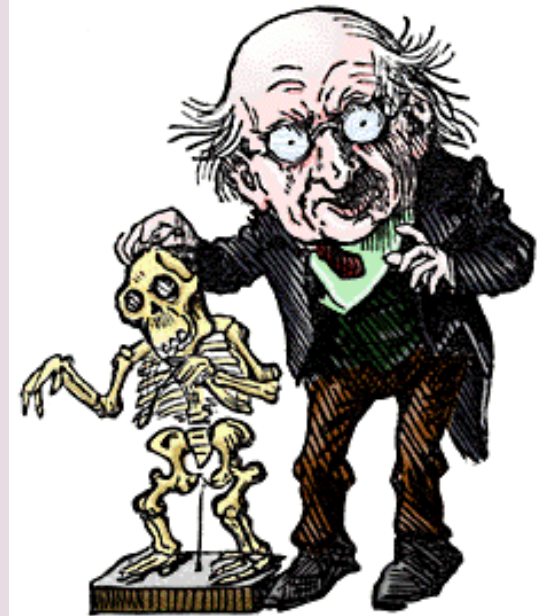
Changing the nature of how we work

- How has e-mail and IM changed the *nature* of the workgroup/workplace?
- Do you think that e-mail has affected *corporate hierarchies*? How?
 - Is that good or bad? Why?
 - How true is it in your experiences at work?
 - What are the *problems* here?



Digression: What about your experiences as a *student* at Carolina?

- Are you more willing to send me email than to call? Drop by? WHY?
 - What about other profs? (no names, please!)
 - When is it better in person?
- Are you willing to email the dean? The chancellor?
 - Why or why not?
- How formal does email tend to be?



- What does Hallowell believe is critical for “human moments” in the workplace?
 - ...and what are the two PREREQUISITES for true “human moments” to occur, in his view?
 - Do you think he is right or wrong? Why?
- In what situations would you think that using e-mail would be inappropriate in the workplace (work-related things)?
- What are some of the stupid/careless things people have done with email: specifically, work-related communication?
 - What might have averted many of these situations?