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Introduction to Information

Course Introduction:

What is Information?
Traditional Definition…

Data… Information… Knowledge… Wisdom

Is this useful?

Pitfalls: info is so insignificant?

Is information just a set of pointers, even gestures?
A postmodern premise: does information make meaning?
--or is it just an impoverished reflection of reality?
Information as Conscious Expression

- Chirps and grunts
- Signals—non-verbal communication
- Hearing, noticing
- Attention

Do we make our own realities though our communities of expression?
Information as Control

- Industrial Systems
- Laws
- Standards
- You name it…
- Does content prescribe the user?
Existential Information

- Planetary issues & the cosmos
- The “red shift”
- Schroëdinger’s Cat, “negative information”
Information as Life?

The human genome

Eric Lander, Ph.D., director of the Whitehead-MIT Center for Genome Research. “Biology is being transformed into an information science…”

Nervous system and consciousness as information systems

Wolfram and ANKOS

- combinatorics
- cellular automata
- emergent systems and non-linearities

Distributed information as a new, evolving life form(?)
Social Informatics

- Information and Power: Who’s in, who’s out—the gatekeeping function
- Codifications of information, from languages to laws, to classification systems
- Standards
- Abstractions, practices, and situated knowledge
- Digital divides and cultural chasms
- Truth: local, universal, or transcendent?
- Peer-to-peer systems, cognitive communities, and emerging new knowledge
Why this course???

- Contrast to Computer Science
  - user-centeredness
  - “our side of the screen”
  - the world of practice

- Politics of empowerment
  - If information is power, the ability to master it and the needed tools empowers YOU

- Tools and frameworks: foundational knowledge

- Focus on emerging, “hot” issues in emerging systems, network dynamics, human factors, etc.
Goals of the course

- Info on Info

- Major approaches: politics, economics, public policy, history, culture

- Major topics: Information literacy, “how it’s done,” economic & business models, privacy, accessibility, censorship, intellectual property, globalization, digital divide

- Emerging expertises: from coding to social analysis

—review the syllabus
Requirements

- Attendance in lecture and sections
- Express interesting ideas
- Two 5-7p. papers
- Exams
- Other details?
- The course Web site:
  <http://www-personal.si.umich.edu/~rfrost/courses/SI110/>