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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/>