



UC Berkeley School of Information

# Introduction: In search of "information"

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**IS 218**  
**Concepts of Information**  
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# Itinerary, 1/18

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Geoff:

Subdividing academic space

What's the *i* doing in iSchool?

Confusion about "information"

Dimensions of variation in definitions of information

Paul:

Review of the course



# Subdividing academic space

The sources of academic geography





# Subdividing academic space

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How "fields" are defined:

By subject matter: Xology = "the study of X"

By institutional setting (e.g., as schools, departments, majors, etc.)

By formal associations (prof. societies, funding sources, cross-institutional relations, etc.)

By literatures and curricula

By markets (e.g., who hires/funds whom?)

By sites of discourse (journals, conferences, informal rules)

What circulates between contemporary philosophers... is not only canonical texts. but a whole philosophical doxa carried along by intellectual rumour — labels of schools. truncated quotations, functioning as slogans in celebration or polemics - by academic routine...which perhaps do more than anything else to constitute the "common sense" of an intellectual generation. Pierre Bourdieu, "The Field of Cultural Production," 1983



## Subdividing academic space

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An intellectual discipline exists when a number of persons believe themselves to possess an identity defined by the common subject of their intellectual activity, when many or all of the problems which they study are raised by or derived from the ... body of literature and oral interpretation produced by those who regard themselves as practitioners of the discipline. An academic discipline is an intellectual discipline when it is taught — that is, discussed and investigated — through academic institutions which bear the name of the discipline or something akin to it. When its members publish works in organs bearing the name of the discipline, a discipline has an intellectual and social structure.

Edward Shils, 1982



# Subdividing academic space



The varieties of academic organization; fields built around:

Professional/institutional practice: education, journalism

Organizational roles: marketing, management,

Technologies: pharmacy, CS, nuclear engineering

Intellectual traditions: philosophy, comparative literature

Human faculties: psychology, linguistics...

"Natural" domains: chemistry, biology...

*But like other 'trees of knowledge', this is arbitrary and reductive.*



# Subdividing academic space

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The challenges of interdisciplinarity:

Cf the experience of cognitive science,  
communications, social relations, media studies,  
cultural studies, American studies...

A pullulation of prefixes: inter-, cross-, trans-, multi-...



# What puts the *i* in iSchool?

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Why not the eSchool, v-School, cyberSchool...?  
The question everybody learns to duck:  
"you're in the School of Information ... so what is  
information?"

WELCOME TO THE iSCHOOL







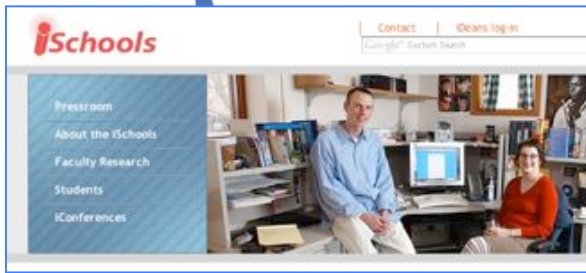
# What puts the *i* in iSchool?

What does it mean to be a "school of information"? Is it computer science or library science? Is it social science, law, or business? Is it information architecture or multimedia design? Are we pioneering the next big navigation tool? Or are we concerned with "the human element" of information: how it connects, separates, affects people?

The answer to all these questions is "yes," because the study of information — how it is created, shared, and transformed into actionable knowledge — touches a wide range of issues and disciplines, just as it addresses the vast diversity of human needs, activities, and relationships.

AnnaLee Saxenian, Dean's statement





# What puts the *i* in iSchool?

"Information" unifies & legitimates the iSchool movement

The iSchools are interested in the relationship between information, people and technology. This is characterized by a commitment to learning and understanding the role of information in human endeavors. The iSchools take it as given that expertise in all forms of information is required for progress in science, business, education, and culture. This expertise must include understanding of the uses and users of information, as well as information technologies and their applications.

iSchools Caucus at [www.ischools.org](http://www.ischools.org)



The McGraw-Hill Companies  
**BusinessWeek**

# The Scope of "information"

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It's not something we can see, really. We certainly can't touch, taste, hear, or smell it. Yet it's always there when we look for it, available wherever we bother to direct our attention. We can glean it from the pages of a book or the morning newspaper and from the glowing phosphors of a video screen. Scientists find it stored in our genes and in the lush complexity of the rain forest. The Vatican Library has a bunch of it, and so does Madonna's latest CD. And it's always in the air where people come together, whether to work, play, or just gab. What is it that can be so pervasive and yet so mysterious? Information, of course...

*Business Week*, "The Information Revolution," 1994



# The Capacious Scope of "Information"

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All technologies that "process information" (although they were never described in those terms in the predigital era) affect deeply the societies that use them. Johannes Gutenberg's printing press eventually helped reformers to erode the Catholic Church's political power: Books spread knowledge in ways the Vatican could not control.... But the world has never seen anything like the computer.

*Business Week*, "The Information Revolution," 1994



The McGraw-Hill Companies  
**BusinessWeek**

# The Scope of "information"

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# The scope of "information"

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What does "it" refer to?

Different concepts or different conceptions?



# The scope of "information"

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Is *information* monosemous (one mng)

E.g., structure (OED): The mutual relation of the constituent parts or elements of a whole as determining its peculiar nature or character

...ambiguous? (several words, diff. meanings) *bank*, *duck*, etc.

...polysemous (one word, several related mngs)

E.g., *gossip* (activity, person, content); *terror* (emotion, that which elicits emotion, activity...); *news* (Did you hear the \_\_\_\_ /listen to the \_\_\_\_?)

"Consider for example the proceedings that we call "games". I mean board-games, card-games, ball-games, Olympic games, and so on. What is common to them all? ... if you look at them you will not see something that is common to all, but similarities, relationships, and a whole series of them at that." Ludwig Wittgenstein, *Philosophical Investigations*

Cf prototype theory: *furniture*, *lie*, etc.

(more on this next week...)



# Dimensions of variation in conceptions of Information

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Popular (folkloric) vs. technical/scientific conceptions of information — but lines are fuzzy

- "Information" as a category of everyday discourse  
*Can you give me some information about dehumidifiers?*
- "Information" in public discourse & policy, education, journalism
- "Information" as a theoretical notion in philosophy, information theory, CS, cognitive science & linguistics, informatics, economics, political science, public policy, business & management, etc.
- "Information" as a theoretical notion in genetics, biology, physics, etc.





# The Theory-of-Information Food Chain

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A rough but useful distinction: ToFI "Producers" and "Consumers" (Brian Smith)

ToFI Producers:

People concerned with "theories or inquiries that address information as a phenomenon in its own right, and who therefore bring forward specific theories about it. ... people or theories or investigations that analyse what information is."

I.e., information theory, philosophy, theories of computation, documentalists & information studies,



# The Theory-of-Information Food Chain

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## TOI Consumers (or "developers")

"People, theories, fields, etc.,... which employ the notion of information substantively but who more rely on information itself, or a concept of information, 'being available' for substantive use."

E.g., geneticists who theorize DNA as an information-carrier, psycholinguists who deploy information theory in studies of information processing, economists...

*These theories may be "grounded" in a prior theory of information, linked to it, or rely on it, but usually wind up reinterpreting the notion for their own purposes.(GN)*



# The historical rise of 'information'

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Next week:

How did "information" become a central, self-conscious category in modern thought?



## Assignment for 1/20

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After looking at the iSchool elevator stories the faculty provided in 2008, please prepare one of your own -- a prepackaged description of what exactly the program is about and why we're different from other faculties, which you might give to a vaguely interested friend, relative, or airline seat mate. This shouldn't take longer to recite than the length of an elevator ride -- the iSchool elevator! It shouldn't require a trip to Dubai. Submit it to Paul and Geoff by email before class.