



UC Berkeley School of Information

# *Information:* What's in a Word? Part II

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**IS 218**  
**Concepts of Information**

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## Itinerary, 1/21

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- The genealogy of "information":
- What's in a word?
- The sociosemantics of "information"
- "Information" as a symbol-word



# **The geneology of "information"**

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# The scope of "information"

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... 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 does "it" refer to?

Different concepts or different conceptions?

Is *information* monosemous, polysemous, or homonymous?



# "Information" defined: OED

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- I. I. a. The action of informing (in sense 4 of the verb); formation or moulding of the mind or character, instruction, teaching; communication of instructive knowledge. Now rare or Obs. [1387] ("Bildung" sense)
2. The action of informing (in sense 5 of the verb); communication of the knowledge or 'news' of some fact or occurrence; the action of telling or fact of being told of something. [Cf "for your information"]
3. a. Knowledge communicated concerning some particular fact, subject, or event; that of which one is apprised or told; intelligence, news. spec. contrasted with *data*. [1450] ("particularistic" sense)  
  
c. Separated from, or without the implication of, reference to a person informed: that which inheres in one of two or more alternative sequences, arrangements, etc., that produce different responses in something, and which is capable of being stored in, transferred by, and communicated to inanimate things. [1937] (naturalistic sense)  
  
d. As a mathematically defined quantity (see *quots.*); now esp. one which represents the degree of choice exercised in the selection or formation of one particular symbol, sequence, message, etc., out of a number of possible ones...
- III. 8. attrib. and Comb., as *information content, explosion, flow, gap, service, storage, system, transfer, work; information officer, ~ processing, ~ retrieval, ~ revolution, ~ science, ~ technology* Also INFORMATION THEORY.

Additions, 2003: *information overload, ~rich, ~poor, ~superhighway, ~warfare*



# "Information" defined

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## Limits of the dictionary definition

Definitions almost always fall short of synonymy  
(information  $\neq$  knowledge)

Definitions leave out many features. (Information as  
"public" notion; "objectivity" of information, etc.)

Definitions presuppose orderly *Sprachbaum*-like historical  
development

Definitions don't capture (most) social variation in use

Definitions presume that meanings are coherent/internally  
consistent



# The geneology of "information"

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Inform1 → "Bildung" i.  
("give form to")

Inform2 → particularistic/"kn.comm" i.  
("impart knowledge")



# The geneology of "information"

inform1



"Bildung" i.

Inform2



particularistic/"kn.comm" i.

"abstract" i ("how much information"?)





# The geneology of "information"

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inform1 → ~~"Bildung" i.~~

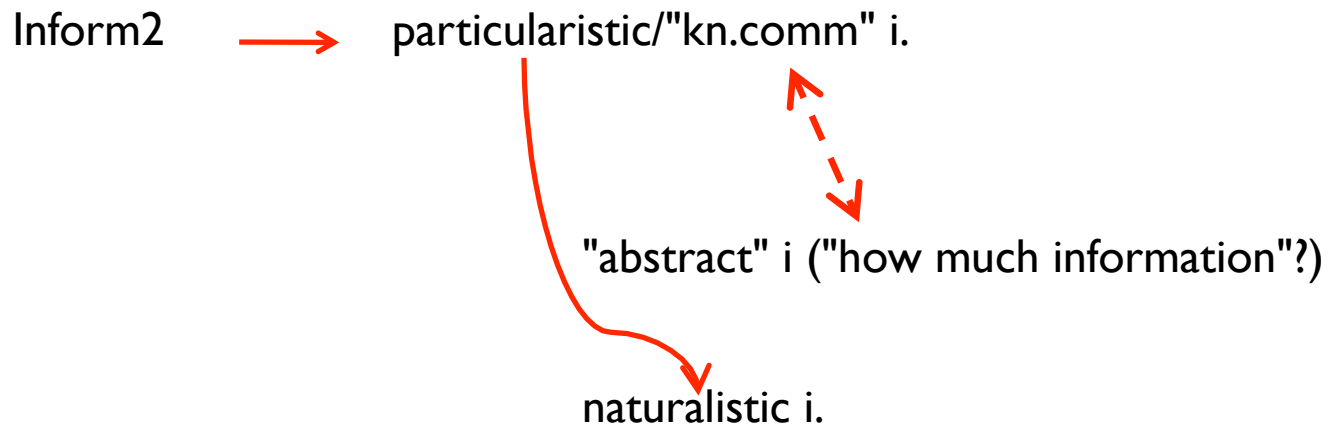
Inform2 → particularistic/"kn.comm" i.

"abstract" i ("how much information"?)



# The geneology of "information"

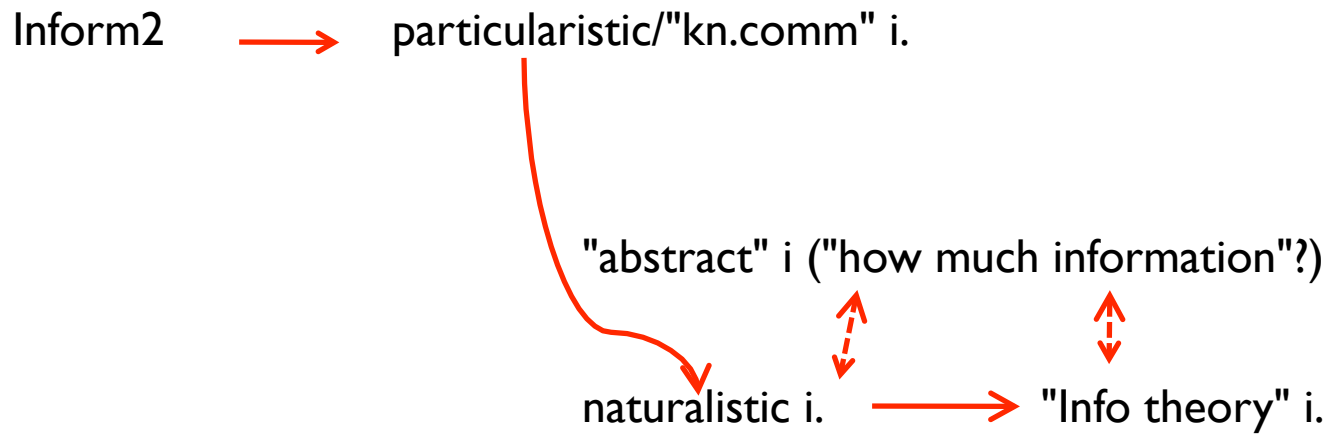
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# The geneology of "information"

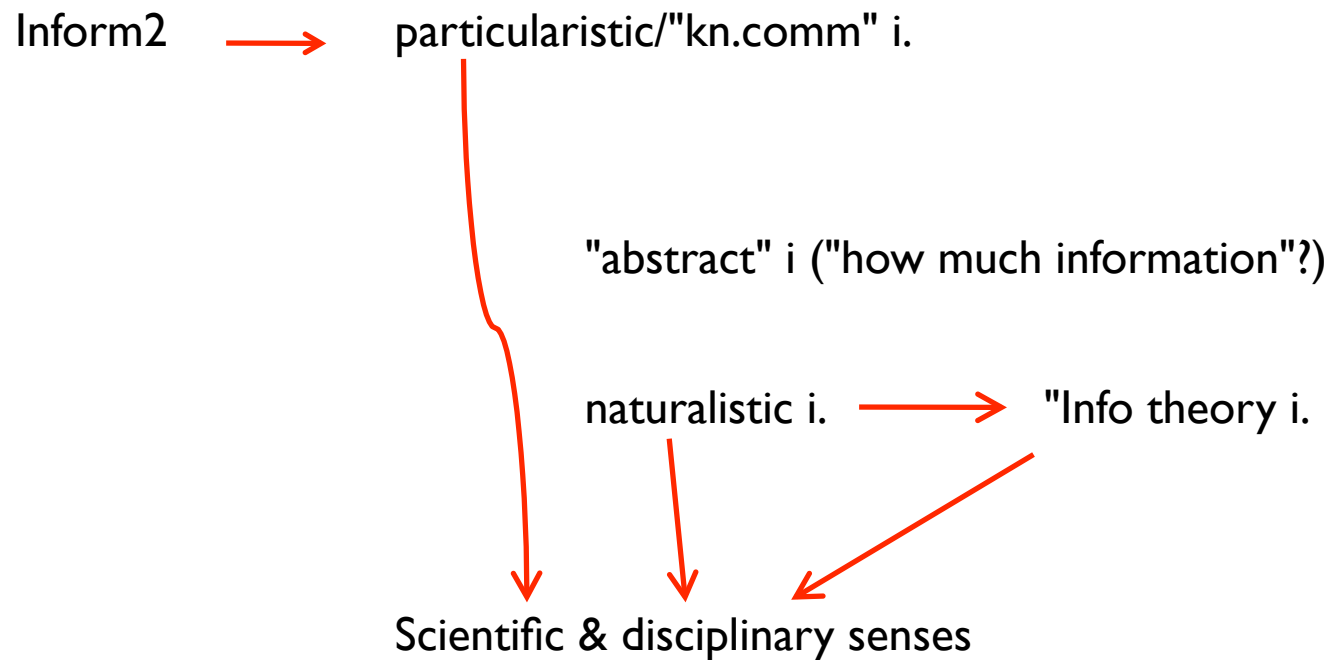
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# The geneology of "information"

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# The Three Faces of "Information"

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Particularistic ("knowledge communicated about some particular fact"):

Related to *inform*; always propositional (i.e., "about"), presumed veridical, can be "reliable," "correct," "useful," etc.

Invested with social and political significance ("free exchange" of i., "informed citizens," etc.) A count noun in other lgs. (*une information/des informations*)

Abstract: Information as substance.

Present in the world, quantized & measurable, recorded in material media ("documented"). Exists independently of subjects; "autonomous"

Representational, but not necc. propositional (cf a digital rep. of an abstract painting, etc.). Not normally described as "reliable," "true," etc. (cf ??How much correct information is there in the world?)

Naturalistic:

"Syntactic" (Weaver): = informativeness of a choice of signals

Semantic: Emerges out of correlations between states of affairs (smoke/fire; crying & hunger). Particularistic information is a special case.



## Sorting them out

...dedicated to deepening our understanding of the social and organizational, as well as the technical, aspects of information in all of its many forms — from text and images to video and new media.

"Political engagement online: Do the information rich get richer and the like-minded more similar?"

... The current information environment would seem to be the perfect antidote to the more informationally and geographically challenged mass media audience.

Does ambient information increase or decrease awareness? With the rise of nearly continuous communications, responsive surfaces, public media facades, atmospheric architecture, resource flow monitoring, and new genres of urban tagging, the ambient becomes a diverse and prominent cultural challenge. ... What is an environmental history of information, and how does that describe not just means, but ends?



free education for all



# Sorting them out

## LATEST BLOG ENTRIES

Online, Higher Education Models - Enter the New York Times

Gregg Breinberg - The Teacher Behind the PS22 Internet Sensation

Technology and Literacy - Creating Better Writers

Of Science, Social Policy and the War on Drugs

Teaching and Learning - Study Reveals "How Teachers See the Profession Today"

Charlie Weis and Randy Edsall Shed Some Tears on the Football Field

Ted Sizer and Gerald Bracey - The Loss of Two Influential Giants

The High Cost of College - Is the Three-Year Bachelor Degree Program the Answer?

Comics in the Classroom - Technology Allows Students to Create their Own Characters and Strips

Film Contest for the Creative - Can You Sell Science?

## ABOUT US

Home

## In the Midst of the Information Age, Why Are We So Uninformed?

by Thomas

One has to go back to Sir Francis Bacon in 1597 for the origins of the quote, "Knowledge is power."

Because of its capacity to control and influence, knowledge was once hoarded by those in position of authority. Today, however, knowledge is readily available to anyone who wants it.

According to the folks at the [Davinci Institute](#), there are:

- ⇒ More than 3.5 million songs available on iTunes.
- ⇒ More than 4 million books available on Amazon alone.
- ⇒ More than 60 million blogs available online.
- ⇒ More than 4 million entries on Wikipedia.
- ⇒ More than 6 million videos on YouTube.

Yet, in a [Pew research poll](#) from last August, while 58 percent of Americans claimed they followed "international affairs," only 28% could name the British prime minister. And while two out of every three respondents said they followed "political figures and events in Washington," only 43 percent could name the American Secretary of State at that time.



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## In the Midst of the Information Age, Why Are We So Uninformed?

According to the folks at the Davinci Institute, there are:

- More than 3.5 million songs available on iTunes.
- More than 4 million books available on Amazon alone.
- More than 60 million blogs available online
- More than 4 million entries on Wikipedia.

Yet in a Pew Research Poll.... Only 28% of Americans could identify the British Prime Minister.... Given that we are in the midst of an information age, the fact that so many of us are uninformed has experts scratching their heads. ...the sheer volume of material available has many contending that the issue is simply one of information overload.



# The First "Information Age"

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Why the shift from Bildung to abstract info? (cause for effect: Cf polysemy of *horror*, "She's my joy," etc.)

Note potential ambiguities:

"He had all his information from books"/"A man of information"/"information for information's sake" etc.

But shift signals a different idea of the mechanism of formation of a public: agency is invested in texts, institutions: newspapers, "trésors" (dictionaries, encyclopedias, libraries, museums, guidebooks, etc.); also information-derivative texts like the novel. Emergence of modern categories of "news," "objectivity," etc.





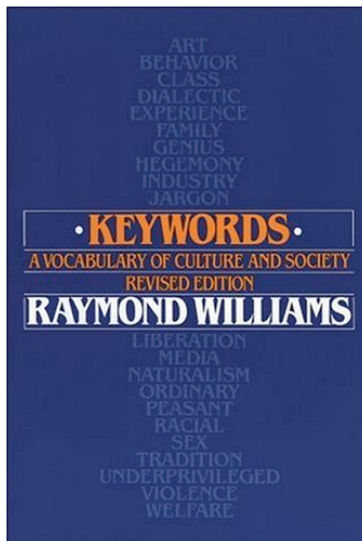
# On "Having a Word for It"

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# "Information" as a keyword

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Keywords:

"strong, difficult, and persuasive words in everyday usage" and...

"words which, beginning in specialized contexts, have become quite common in descriptions of thought and experience."

"significant, indicative words in certain forms of thought. Certain usages [bind] together certain ways of seeing culture and society."

"This... is the vocabulary we share with others when we discuss many of the central processes of our common life."



# The Variety of Keywords

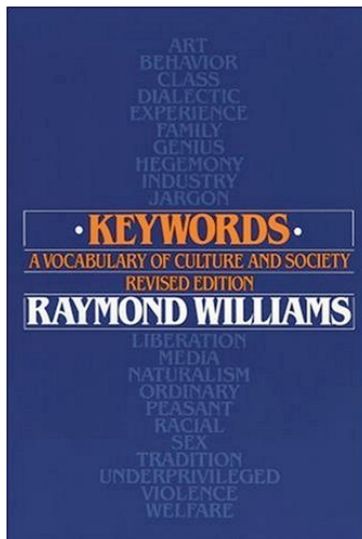
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Williams's keywords include:

alienation  
aesthetic  
common  
culture  
democracy  
dialectic  
ecology  
elite  
media  
underprivileged  
welfare...

But not *information*





## On Keywords

Resonances among word senses – though taken to extremes

- when we say that people, things, and events are interesting. The question is whether this sense of an object generating such **interest** is related to the active sense of **interest** -- of money generating money... It seems probably that this now central word for attention, attraction, and concern is saturated with the experience of a society based on money relationships.

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## The Varieties of Keywords

- "Compacted doctrines" (Empson): (apparently) stable words that encapsulate basic cultural and social attitudes
  - *work, interest, city/country, family, community, freedom, science, society*
  - *Contrast solidarity, fraternalism, republic(an), democrat, which have no current role as keywords in Eng.-speaking culture*
- Words that "engage continuity and discontinuity and also deep conflicts of value and belief" – "contested concepts" (Gallie)
  - Williams: *class, imperialism, liberation, elite*
  - Later: *multiculturalism, diversity, secularism, representation, \*elite, tradition...*
  - (Also: words drawn from specialized/intellectual discourses: *alienation, formalist, dialectic, hegemony...*)



# Word and Concept

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What does it signify to have a word\* for something?

»\*"Word" = "ordinary-language fixed expressions of some currency" (OLFESC)-- A. Zwicky



## An old debate

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- Before being exposed to words in a language such as English, all human beings possess the concepts that these words correspond to, as part of what Jerry Fodor calls 'mentalese' or 'a language of thought'. Under this view, as Fodor puts it, all language learning is actually *second* language learning...
- BUT..
- Many linguists and anthropologists claim that the language one learns has a profound influence on how one thinks...
- P. Bloom and F. C. Keil, "Thinking Through Language"



# Popular View of Word-Concept Identity

"Having a word" is a precondition for having the concept  
(or: Emergence of a word signals emergence of associated concept)

Cf. "Language X has no word for Y"

French: "nice," "home," "shallow," "goofy"

Spanish: "sportsmanship," "flunky," "accountability"

Chinese: "brand," "yes," "privacy"

Arabic: "rape," "responsibility," "ironic," "compromise"

Russian: "marketing," "freedom," "privacy"

German: "humor," "frustration," "appreciate," etc.





# Word-Concept Identity

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"Language X has a curious word for Y" ("Untranslatable words")(Ger. *Schadenfreude*, *Zeitgeist*; Yiddish *farpotshket*, French *frotteur*, etc.)

The world's most difficult word to translate has been identified as "ilunga" from the Tshiluba language spoken in south-eastern DR Congo. It came top of a list drawn up in consultation with 1,000 linguists. Ilunga means "a person who is ready to forgive any abuse for the first time, to tolerate it a second time, but never a third time."

—BBC report, 22 June 2004



# Ideological Implications

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Cf the fable of Newspeak:

[In Newspeak] a heretical thought - that is, a thought diverging from the principles of Ingsoc - should be literally unthinkable, at least so far as thought is dependent on words. Its vocabulary was so constructed as to give exact and often very subtle expression to every meaning that a Party member could properly wish to express, while excluding all other meanings...  
Orwell, *1984*

English is the underlying force, at least indirectly, behind the outbreak of democratic reform sweeping the communist world. ...The common bond of democracies everywhere is the inherent capability of the English language to define and exhort the essence and spirit of government by consent of the governed. William Robertson, *Miami Herald*, 1989



# Independence of Words & Concepts

## Concepts that antedate their names

*original* Having the quality of that which proceeds directly from oneself; such as has not been done or produced before; novel or fresh in character or style. (1756) *originality* in this sense from 1782

But cf. Milton's "things unattempted yet in prose or rhyme" (1667). Hist of concept of originality ≠ history of *originality*

Cf also development of *patriotism*, etc.

Cf *plot twist* (1920) "An unexpected turn of events in a work of fiction"



# Independence of Words & Concepts

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## Concepts that antedate their names

The concept of information could have existed before the word existed or acquired its modern sense; concept could exist in lgs that have no specific word for this.

What makes it possible to talk about the "history of information," etc.



## The Importance of Lexicalization

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Still, lexicalization (giving a specific name to a concept or thing) obviously has historical & cultural implications:

e.g., “ethnics,” WASPS, lifestyle

Cf untranslatability of some ideological terms (“ownership society”).



# Psychological implications of lexicalization

Lexicalization of concepts facilitates coding & recall, "chunks" content, foregrounds lg-relevant percepts, makes reference more convenient...

relating to the maintenance of a balance between producing and using carbon, especially balancing carbon-dioxide emissions by activities such as growing plants to use as fuel or planting trees in urban areas to offset vehicle emissions

carbon-neutral





# Social implications of lexicalization

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"The surest sign that a group or society has entered into the self-conscious possession of a new concept is that a corresponding vocabulary will be developed, a vocabulary which can then be used to pick out and discuss the concept with consistency."

—Quentin Skinner, "Language and Social Change"



# How do words shape concepts?

Words impute identity or similarity of distinct things – legitimately or illegitimately

Whenever we have made a word to denote a certain group of phenomena, we are prone to suppose a substantive entity existing beyond the phenomena, of which the word shall be the name. William James, *Principles of Psychology*

e.g. terrorism,

E.g., "religious" attention to work, *racism*,

Provide cognitive models: metaphors

Not always easy to tell: cf "war on X"





# Words structure cultural formations

*literacy*: knowledge of letters; condition in respect to education, esp. ability to read and write (1893)

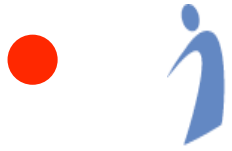
*economic literacy* 1943

*functional literacy*: 1954

*cultural literacy*: ca. 1990

Also: *literacy rate*, *literacy campaign*, etc.

*literacy* arises in US, implicates a complex relation between education, class, knowledge, citizenship, and the role of the state in culture



## Emergence of Vocabularies

- Cf reconfiguration of vocabulary of class in terms of consumer categories in 1970's & 1980's:
  - Appearance of middle America (1969), *upscale* (1966), *trendy* (UK 1962), *yuppie* (1984), Gen-X, etc.
  - Shifting meanings of *preppie*, *blue-collar*, etc.
  
  - Also: shifting meanings of *elite*, *populist*...
  - Diffusion of *lifestyle* & *demographic*



# The Emergence of Vocabularies

Implications of information in its collocations & oppositions:

OED lists: *information explosion, gap, storage, system, transfer, work; -gathering, -giving, -seeking; information processing, information retrieval, information revolution, information science, information technology, information overload, information rich, information warfare.*

Not to mention *information society, ~ anxiety, ~ glut, ~ haves & have-nots, ~ rich & poor, ~ challenged, etc.*

*information* in its semantic oppositions to *data, knowledge, wisdom...*

Moral: *information* implicates a semantic field or conceptual scheme



# The Sociosemantics of Vocabularies

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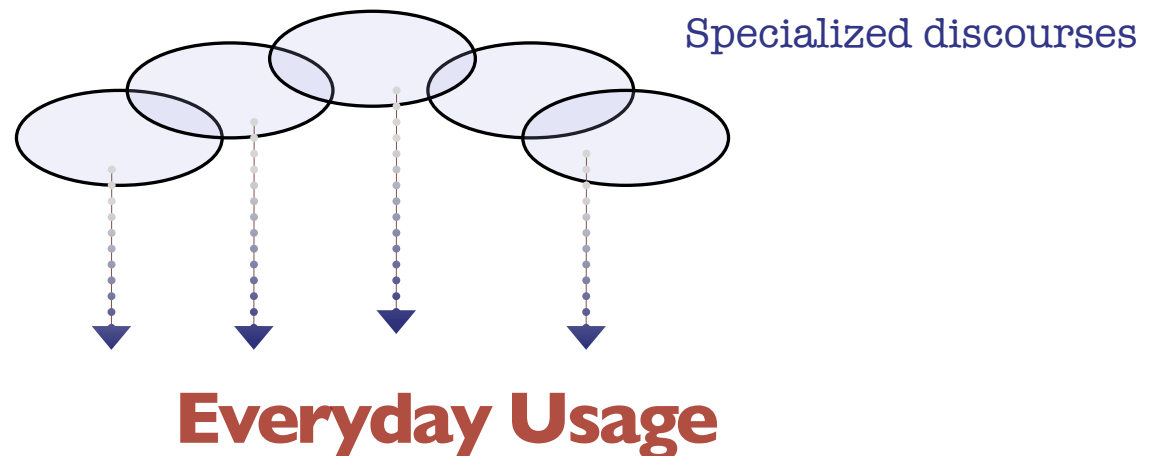
# Words originate in subdiscourses



Semantic trickle-down:

Cf recent histories of *alienation, bureaucracy, conformist, ethnic, identity politics, peer-group, status symbol, economic, schizophrenic, psychopath...*

"Lately there ain't been much work on account of the economy"





# Words are referred to subdiscourses

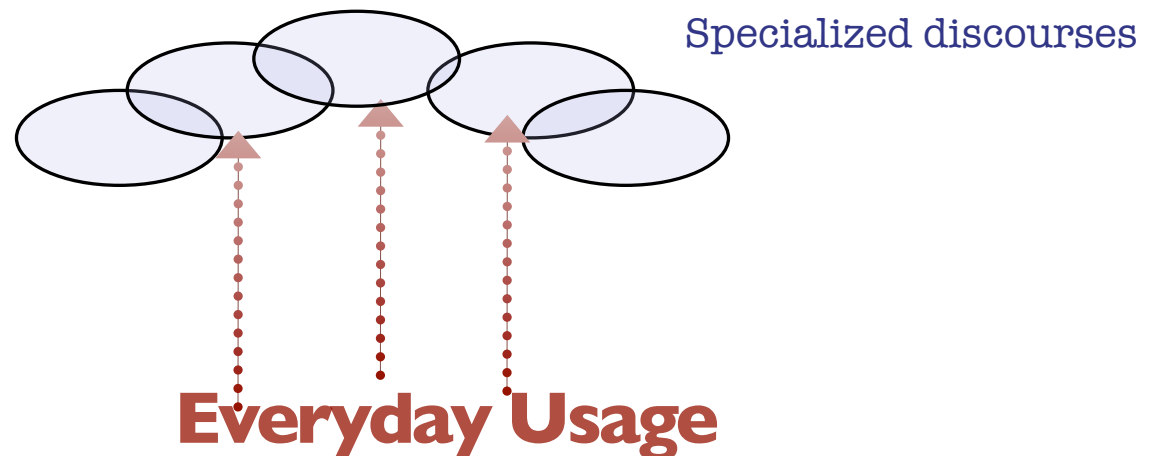


Words percolate up the ivory tower

”Technicalization” of vocabulary:

Cf modern development of *wealth, depression* (econ. & psych.)

Cf. also the development of *information*



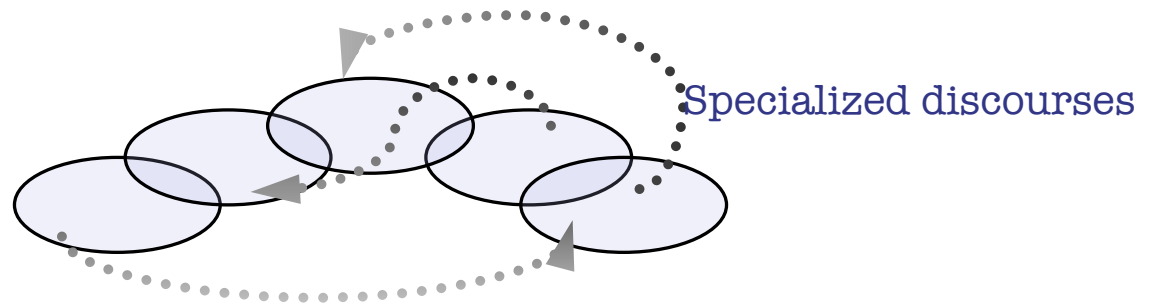


# Words spread among subdiscourses



Words circle round the ivory tower  
(*Wanderwörter*)

Cf recent histories of *network*, *formalism*, *community*,  
*information*, *recursive...* and *information*

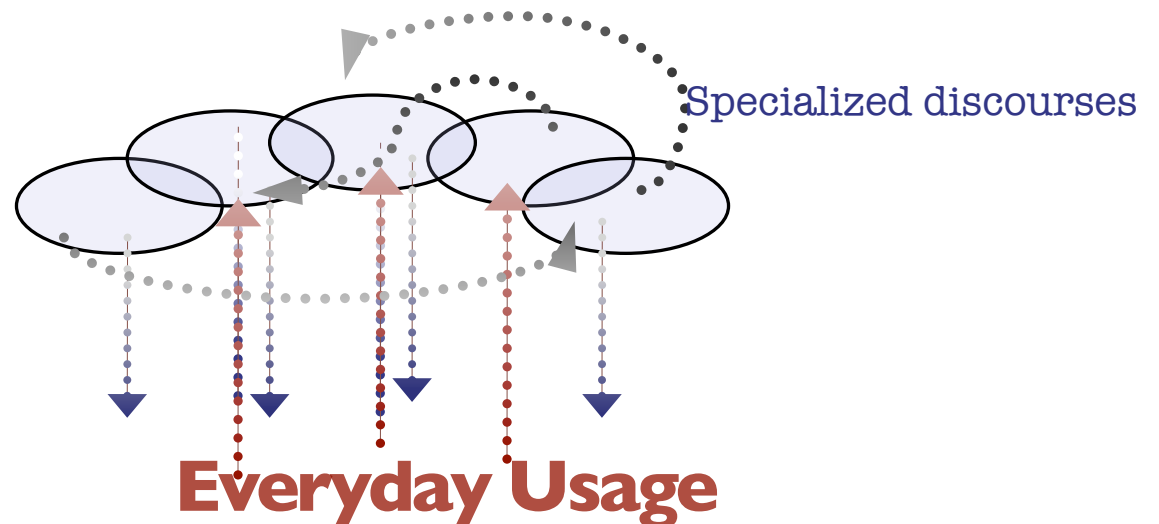


**Everyday Usage**



# Words move in all directions at once

What does a given use of *information* owe to the requirements of the discipline, the influence of neighboring disciplines, and the general understanding of the word?







# The Symbolic Importance of Information



## Information as a symbol-word

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The making of one general will out of a multitude of general wishes is not an Hegelian mystery... but an art well known to leaders, politicians, and steering committees. It consists essentially in the use of symbols which assemble emotions after they have been detached from their ideas. Lippmann, *The Phantom Public*

[symbols] do not stand for specific ideas, but for a sort of truce or junction between ideas. Lippmann, *Public Opinion*

*appeasement*: "The policy of granting concessions to potential enemies to maintain peace..." (AHD)