

The Information Explosion: A (Very) Brief History

Infosys 218
The Quality of Information
Geoff Nunberg
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Today

Looking Backward (GN & PD) Quantity and Quality (PD)

Subscribing to "Quality" list:

Either:

Go to school intranet and sign up to the
"quality (i218)" list, or

send an email to

`majordomo@ischool.berkeley.edu` with the
message "subscribe quality" in the body.



The Information Explosion

Smithsonian Secretary Robert McC. Adams said the Smithsonian decided to plunge into the expanded exhibition "because of the rapidity with which the 'Information Revolution' is changing our world. "In the hindsight of history," he continued, "this proliferation of new ways in which to think about and use information will almost certainly be seen to rival the Industrial Revolution of the 19th century in its impact on the substance and quality of human life. We might well regard the information explosion as the dominant achievement and characteristic of our times.

--The information explosion. "Most experts now agree that general knowledge is doubling about every two years...."



The Information Explosion

And while Mr. Reagan prospered in schools without libraries, I believe that the "information explosion" of more recent years has made school libraries necessary.

This is the information age! There is an information explosion. Some students will need a longer period of time to master mathematics, science, economics, world history...



The Information Explosion: Wikipedia Weighs In

Information explosion

Information explosion is a term that describes the rapidly increasing amount of [published](#) information and the effects of this abundance of data. As the amount of available data grows, the problem of managing the information becomes more difficult, which can lead to [information overload](#) or [information fatigue](#). Fortunately, techniques to gather knowledge from an overabundance of electronic information (e.g., [data fusion](#) may help in [data mining](#)) have existed since the 1970s.

Web Servers

As of August 2005, there are over 70 million [web servers](#). [1]

Blogs

According to [Technorati](#), the number of [blogs](#) doubles about every 6 months with a total of 35.3 million blogs as of April 2006. [2]



Looking Backward...

Something has happened in the last hundred years to change the relation of the written word to daily life. Whether it is the records we have to keep in every business and profession or the ceaseless communicating at a distance which modern transport and industry require, the world's work is now unmanagenable, unthinkable, without literature. ... A committee won't sit if its drivelings are not destined for print. Even an interoffice memo goes out in sixteen copies. [There is a] huge number of activities which (it would seem) exist only to bombard us with paper...

Jacques Barzun, 1954:



And Backwards...

Process reproduction and the rotary press have made possible the indefinite multiplication of writing and pictures. Universal education and relatively high wages have created an enormous public who know how to read and can afford to buy reading and pictorial matter. A great industry has been called into existence in order to supply these commodities. ...The population of Western Europe has little more than doubled during the last century. But the amount of reading—and seeing—matter has increased, I should imagine, at least twenty and possibly fifty or even a hundred times

Aldous Huxley, 1934:

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And Backwards...

Books are not only printed, but in a great measure written and sold by machinery.... Every little sect among us, Unitarians, Utilitarians, Anabaptists, Phrenologists, must have its periodical, its monthly or quarterly magazine, hanging out like its windmill into the *popularis aura* to grind meal for society.

Thomas Carlyle, 1840



And Backwards...

It will soon be the employment of a lifetime merely to learn [books'] names. Many a man of passable information at the present day reads scarcely anything but reviews, and before long, a man of erudition will be little better than a mere walking catalogue.

Washington Irving



More Backwards Still

The present age... may be styled, with great propriety, the Age of Authors; for, perhaps, there was never a time when men of all degrees of ability, of every kind of education, of every profession and employment were posting with ardour so general to the press....

Samuel Johnson, *The Adventurer*, 1753



Even More Backwards...

Hence Bards, like Proteus long in vain ty'd down,
Escape in Monsters, and amaze the town.
Hence Miscellanies spring, the weekly boast
Of Curl's chaste press, and Lintot's rubric post:
Hence hymning Tyburn's elegiac lines,
Hence Journals, Medleys, Merc'ries, Magazines,
Sepulchral Lyes, our holy walls to grace,
And New-year Odes, and all the Grub-street race.
Alexander Pope, *The Dunciad* (pub. 1742):



Backwardser yet...

Of the making of books there is no end.



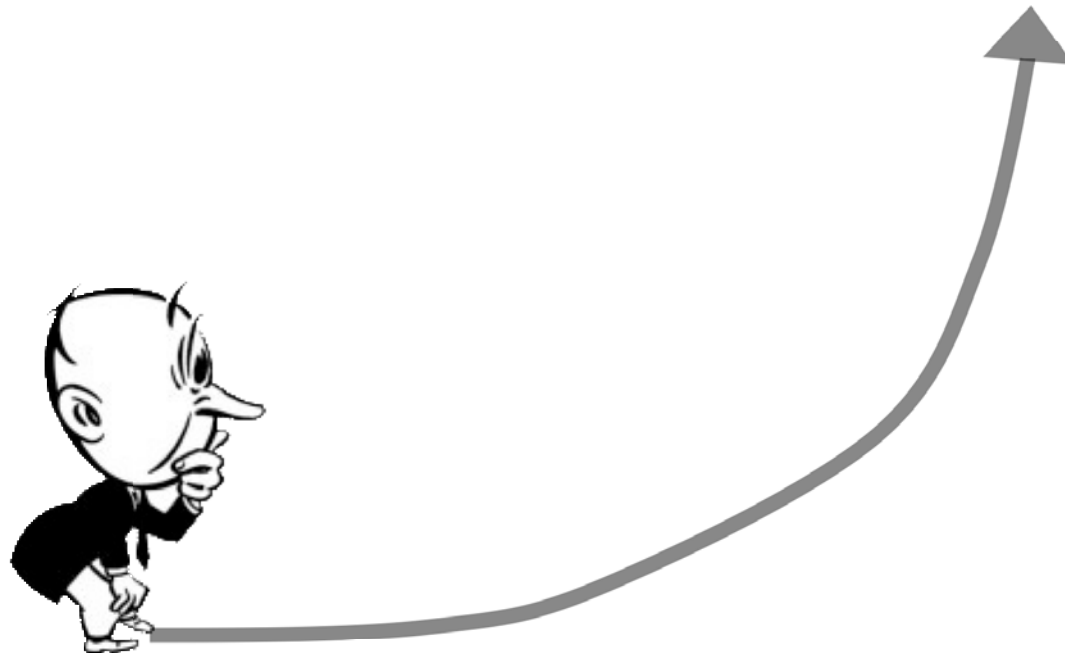
Backwardser yet...

Of the making of books there is no end. Ecclesiastes,
12:12



Nunberg's Law

An exponential curve looks just as scary wherever you get on board.





Putting the "Information" in the Information Explosion?

According to one estimate, more new information has been cranked out in the last three decades than in the previous five millennia. The total amount of printed knowledge doubles every eight years. ... The phrase "I read that somewhere, but I can't remember where" has become endemic. The result? Information anxiety, described as "the black hole between data and knowledge." The difference between the two: Data is the raw material, and is passive; information is active and, ideally at least, enlightening. As we thrash around in the over-abundance of the first, the second becomes ever more elusive.

Washington Post, 2/3/89



The historical rise of 'information'

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



The emergence of “information” as a self- conscious category

What makes something count as
“information” for us?



What makes something "information"?

Medium:

“information” usually presumes a fixed medium of storage or transmission.



What makes something "information"?

Medium:

Setting

"Information" belongs to public or institutional
life



What makes something "information"?

Medium:

Setting

"objectivity"/transferability

Compare "medical information" with "medical
knowledge"



What makes something "information"?

Medium:

Setting

"objectivity"/transferability.

Measurability

According to one estimate, more new information has been cranked out in the last three decades than in the previous five millennia.



The 20th-century: Imperial "Information"

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 many meanings of "information"

... 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.