

```
PQ Voltaire, François Marie Arouet de,
2082 1694-1778
C3 Candide; ou, L'optimisme. Préface
de Francisque Sarcey. Illustrations
de Adrien Moreau. Paris, Editions
Jules Tallandier, 19

174p. 26cm. (Les chefs-d'oeuvre
de l'esprit)
```

storage & search

revolution at last?

April 15, 2014



aob

6 April 2014 Last updated at 19:39 ET







Half-century milestone for IBM mainframes

By Mark Ward

Technology correspondent, BBC News



Mainframes were the workhorses of business for many years

BASIC Begins at Dartmouth

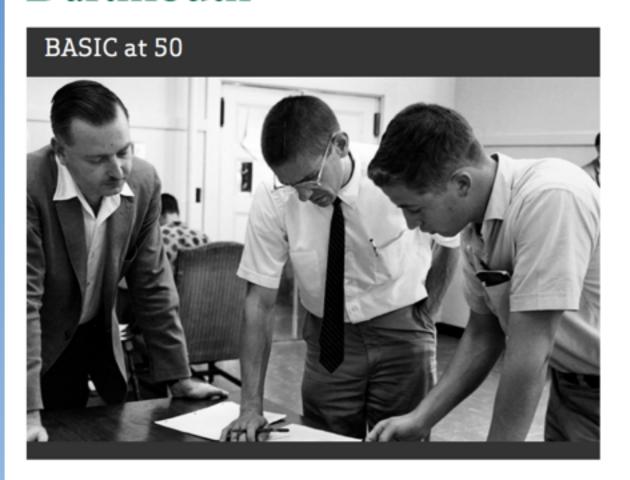
At 4 a.m. on May 1, 1964, in the basement of College Hall, Professor John Kemeny and a student programmer simultaneously typed RUN on neighboring



and another GOTO

Dartmouth

Dartmouth Home | Search | Index



HELLO

HELLO

100 GOTO EVENT SCHEDULE

BASIC50***

110 BASIC AT DARTMOUTH

READY

120 INNOVATION TODAY

RUN

Google highlights email scanning practices in terms of service update

Summary: Google comes clean in its new terms of use that it does, as most people already know, scan email to personalise ads.



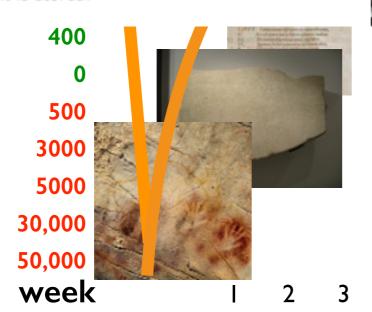
here are we?

Google has refreshed its terms of service, explicitly stating for the first time that it scans the contents of users' emails to target them with tailored advertising.



The clarification in its terms follow recent legal challenges to Google over its handling of email a Microsoft's recent Scroogled campaign, which draws attention to Google's email-scanning pract

Google's terms, updated on Monday, state: "Our automated systems analyze your content (including emails) to provide you personally relevant product features, such as customized search results, tailored advertising, and spam and malware detection. This analysis occurs as the content is sent, received, and when it is stored."





to the Internet.

E-MAIL

Google is reaching for the sky.

On Monday, the company said that it had purchased Titan

Aerospace, a maker of high-altitude drone satellites, which Google says will be used to take photos of the earth and to connect people



"when it is stored"

records

"Science has provided the swiftest communication between individuals; it has provided a **record** of ideas and has enabled man to manipulate and to make extracts from that **record** so that knowledge evolves and endures throughout the life of a race rather than that of an individual."



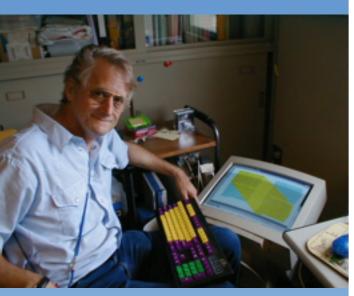








from past to future



Ted Nelson



Tim Berners-Lee CERN

swords into ploughshares

extending, storing, consulting

"A record if it is to be useful to science, must be continuously extended, it must be stored and above all it must be consulted."

& indexing

"Our ineptitude in getting at the record is largely caused by the artificiality of systems of indexing."

indexing ineptitude?

SCIENCE NEWS

HOME / SCIENCE NEWS / RESEARCHERS SAY VALUABLE SCIENTIFIC DATA DISAPPEARING AT ALARMIN RATE

Researchers say valuable scientific data disappearing at alarming rate

Dec. 19, 2013 at 5:14 PM | 2 comments

VICTORIA, British Columbia, Dec. 19

(UPI) -- Eighty percent of scientific data are lost within two decades, disappearing into old email addresses and obsolete storage devices, a Canadian study indicated.

The finding comes from a study tracking the accessibility of scientific data over time conducted at the University of British Columbia.

Researchers attempted to collect original research data from a random set of 516 studies published between 1991 and 2011.

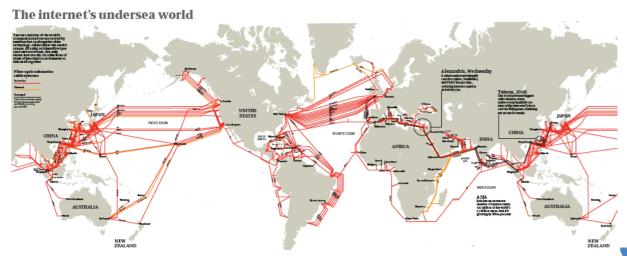
While all data sets were available two years after publication, the odds of obtaining the underlying data dropped by 17 per cent per year after that, they reported.

the library

history

properties

transformation





what's the model?

"a sort of mechanized private file and library" --Bush

"[T]he library of the future." — J.R. Licklider, 1965

"[T]he Internet ... is a library." —Frances Cairncross, The Death of Distance, 1997

"Library of libraries"

—George Steiner, Grammar of Creation, 2001

"[T]he web is a global library produced by millions of people" — Yochai Benkler, The Wealth of Networks, 2006

"In the beginning, the Web was a library" — Abelson, &c., Blown to Bits, 2008

"Most of the world's information is not online. It's offline, in books, on shelves." — Google representative, 2009



the right model?

"The Internet is a library with all the books on the floor."

--Librarian's Guide to Cyber Space

Yet, until recently conservation remained expensive, search was difficult and access limited. The costliness of continuous preservation forced us to carefully consider the tradeoffs of retention and deletion. Only records viewed as important and valuable were kept. Libraries were expensive undertakings, requiring experts to keep the books in good order. 11 Our grandparents had their photo taken only at special occasions; and our parents would film us with Super 8 for short takes only, due to the cost of film.

-Mayer-Schönberger

The "default" Mayer-Schönberger seeks should not be in remembering or forgetting, but differentiating. The responsibility, then, would be shifted back to the human being as the caretaker of "societal" information. If this were addressed, surveillance would be less of an issue, as the information stored and searched would be cultivated. -Ryan

libraries are ...

all or nothing:

collections?

"the collection of data and observations, ... into the general body of the common record"

or selections?

"the prime action of use is selection ... and here we are halting indeed."

collection ambitions

Alexandrian fixation

"These Libraries in a few years, will be full and compleat, being furnished, not only with all the valuable and usefull Old Books in any Art of Science, but also with all the valuable New Books, so soon as every they are heard of or seen in the World."

> -- James Kirkwood, An Overture for Founding and Maintaining of Bibliothecks in Every Paroch Throughout This Kingdom, 1699

theguardian

News US World Sports Comment Culture Business Money

Culture William Shakespeare

University of London abandons plans to sell Shakespeare folios

Proposed sale of the works will not go ahead in light of negative response from academic community, says vice-chancellor

The Guardian, Thursday 5 September 2013 18:26 EDT



sity of London's library had intended to auction first four folios. Photograph: Bettmann/Corbis

... and obligations

preservation

An Overture for Founding and Maintaining ...

organization

"to organize the world's information"

access

& funding

the library
history
properties
transformation



Anyang, c1100 bce

"as early as the second millennium BCE the Chinese had ... means of organizing and storing their written records."

--Helliwell, 1998

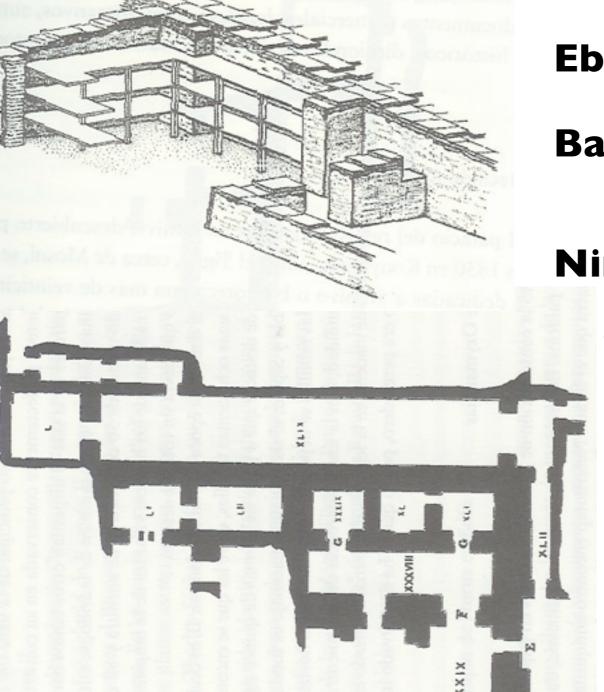
stored writings

Ebla (Syria) c 2250 bce

Babylon (Iraq) c 1790 bce, 15,000 tablets Hammurabi

Nineveh (Iraq) c. 650 bce, 31,000 tablets

Ashurbanipal; destroyed 612 bce





what's stored

a distinction of significance?

- **Ebla**: accounts, lists, etc.
- Nineveh: Gilgamesh

See the tablet-box of cedar,
Release its clasp of bronze!
Lift the lid of its secret,
Pick up the tablet of lapis lazuli and read out
The travails of Gilgamesh

— The Epic of Gilgamesh

(Penguin, 2003, trans. Andrew George)



Ptolemy I 368-282



Ptolemy II 308-246



Ptolemy III 284-222

the archetype

Alexandria

"[T]he Ptolomies "sought to make their capital the cultural center of the Greek world ... what they couldn't buy...commandeered...confiscated" — Casson, Libraries of the Ancient World, 2000

a "public" library c. 300 b.c.e

490,000 in main library; 42,800 in "daughter"

"Anthony gave the 200,000 books in the library of Pergamum ... as a gift."



Islam

Bayt al-Hikma, Baghdad, 9th century

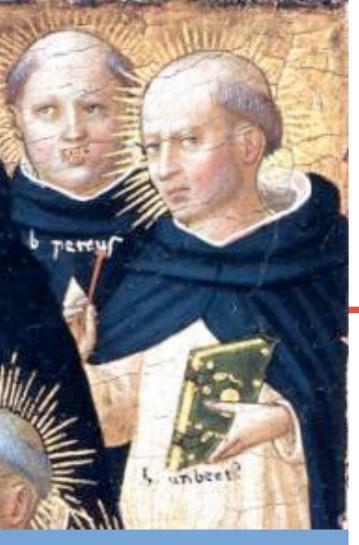
("The House of Wisdom")

"Whoever wanted was at liberty to copy any book he wished to copy, or whoever required to read a certain book could do so."

-- James Thompson, The Medieval Library, 1939

mathematics, astronomy, medicine, chemistry, zoology, geography

a mandate to translate



Europe

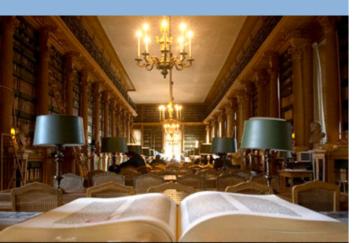
religious foundations

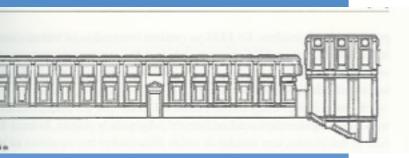
Humbert de Romanis (c1194-1277)

dry, well ventilated, ample shelving, subject categories, catalogue, titles on spines; up to date, selling old and duplicates to buy new; regular hours; "reference" book chained, others portable; loans recorded

Trithemius (15 - 16th cent)

Mazarin (17th cent)





state libraries



Paris (Charles V, 1338-1380)



Beijing (Ming Dynasty, 15c)



Florence (Cosimo de Medici, 1389-1464)



Vatican (15th century)

Escorial (16th century)



Jean-Baptiste Colbert 1619-1683

143 references in Encyclopédie

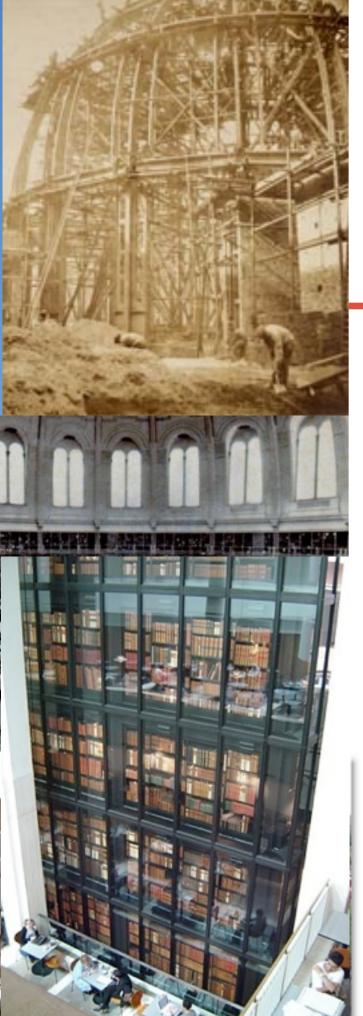
A un zele également vif pour le progrès des Sciences & pour la gloire de son maître, M. Colbert joignoit une passion extraordinaire pour les livres; il commençoit alors à fonder cette célebre bibliotheque . jusqu'à ces derniers tems la rivale de la bibliotheque du Roi: mais l'attention qu'il eut aux intérêts de l'une, ne l'empêcha pas de veiller aux intérêts de l'autre. La bibliotheque du Roi est redevable à ce ministre des acquifitions les plus importantes. Nous n'entrerons point ici dans le détail de ces diverses acquisi-

public-private overlap

the "information master"

"At the upper-end is a fair Room, wherein the Papers of State are kept; particularly those of the Administration of Cardinal Mazarin and his own Accounts, when he was in Employment. make up many hundred Folio's. The Manuscript Library ... contains 6,6100 Volumes."

—Martin Lister, FRS,1698



palace to museum to library to ...

British museum (dept of printed books), 1753

Old Royal Library (Geo II, acquired 1757)

"the British Museum ... adding to each at the public expense, those articles that are wanting ... by purchasing all the books of character ... They might be classed in centuries, according to the dates of their publication, and catalogues printed of them and the manuscripts... a complete apparatus of a course of mathematics, mechanics, and experimental philosophy."

--Tobias Smollett, Humphrey Clinker, 1771

King's Library (Geo III, 65,000 vols acquired 1823)



another anniversary August 24, 1814





LoC

1800 - library, c. 3,000 books

1814 - destruction

"I learn from the newspapers that the vandalism of our enemy has triumphed over science as well as the arts" -- Jefferson

1815 sale of Jefferson's library 6,487 books; \$23,950

185 I fire destroys 35,000 books

1897 Thomas Jefferson building



for the public

smaller scale

Cheetham, England, 1653 (first public library)

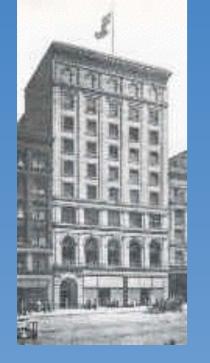
Cranston Library, Reigate 1701 (first public lending library)

Coffee-House libraries, 18th century

"Few, indeed, but crowned and mitred heads ... were able to procure a number of books sufficient to merit the appellation of a Library; and even the boasted libraries of princes and prelates, were such, as are now easily exceeded by every private collection."



23-Hofl I 4_Store



Mechanic's Institue, SF



Tabard Inn bookcase

19th century

Beijing libraries and bun shops

Mudie's Select Library

Mechanics subscription libraries

Tabard Inn 5 ¢ Booklover's Library

bibliothekswesens

1953 rental libraries: 600 million circulations (20 times the circulation of public libraries)

the library

media history

organization **properties**

selection transformation

status

funding

media

pressed in clay?

time-binding

He came a far road, was weary, found peace, and set all his labours on tablets of stone

See the tablet box of cedar,

Release its clasp of bronze

Lift the lid of its secret

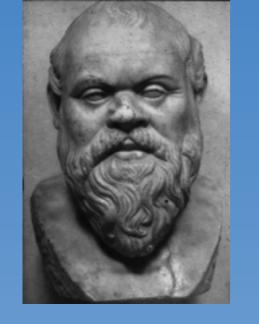
Pick up the tablet of lapis lazuli and read out

the travails of Gilgamesh, all that he went through

--Gilgamesh,3000 bce



[trans Andrew George]



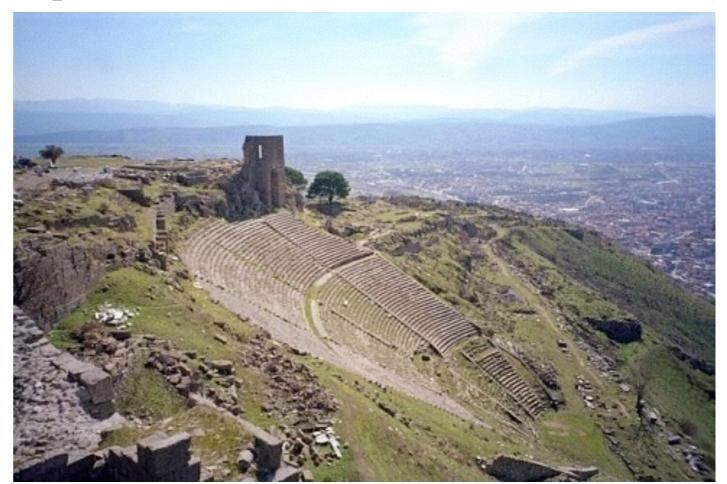
new technologies

Lyceum [Greece]

(Aristotle)

Pergamum[Turkey]

(c 197 bce) 200,000 scrolls

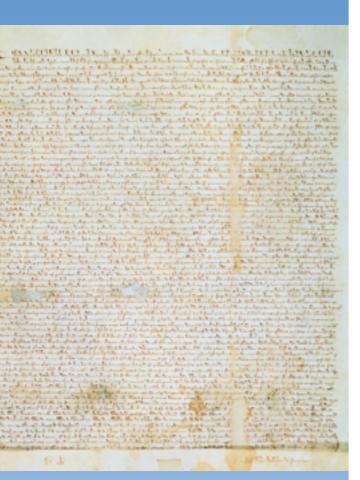


Alexandria

430,000 volumes

media

another revolution



questions of preservation

1145, Roger of Sicily ordered all charters on paper to be copied to parchment then destroyed

1248, paper accepted by the notaries of Languedoc

enduring suspicion

"The written word on parchment will last a thousand years. The printed word is on paper. How long will it last? The most you can expect of a book of paper to survive is two hundred years. Only time will tell."

different techniques

(261)

Anno Octavo

Annæ Reginæ.

An Act for the Encouragement of Learning, by Vefting the Copies of Printed Books in the Authors or Purchasers of such Copies, during the Times therein mentioned.



hereas Printers, Bookfellers, and other Persons have of late frequently taken the Liberty of Printing, Reprinting, and Publishing, or causing to be Printed, Reprinted, and Published Books, and other Elicitings, without the Consent of the Authors or Proprietors of such Books, and Elittings, to their bery great Detriment, and too often to the Ruin of them and their Families: For Preventing therefore such Pradices sor the future, and too the

Pradices for the future, and for the Encouragement of Learnerd Den to Compole and Africe useful Books: Day it please Your Daiety, that it may be Cadied, and be it Chaired by the Queens most Excellent Baiety, by and with the Addice and Consent of the Looks Spicitual and Composal, and Commons in this present Parliament Assembled, and by the Authority of the same, Chair from and after the Centh Day of April, One thousand seven bundred and ten, the Author of any Book or Books already Printed, who hath not Cransferred to any other the Copy or Copies of such Book or Books, Spinter or Hinters, or other Person or Bersons, who both or have Purchased or Acquired the Copy or Copies of any Book or Books, in other to Printed the Copy or Copies of any Book or Books, in other to Print of Replint the same, shell have the soft the Cern of One and twenty Pears, to Commonce from the sam Centh Day of April, and and longer; and that the Sauthar of any Book or Books sor the Composed and bis Affigure, or Agings, that have the sold Liberty of Printing and Reprinting such Book and Books sor the Cerm of Four-

different tactics

time-binding to space-binding



locks: "lots of copies keeps stuff safe"



BIBLIOTHECA

Vniuerfalis, fiue Catalogus omnis beales researchem & non extantio, tocerum & recention on in huncules dice, dofterum & indofterum, publicatorum & In Bibliothecis Intention. Opus nouver, & no Bebliotrecis cantum publicis primatismeine Struendisnecellarium fed fludiofis o mnibus cuatfornes artisaut

frientise ad fludia melius formanda unitificacentauchore CONKARO GERESNO Tigurina dodore medico



Professional Hospitalis, Assa B. D. KLV.

organizing books

size

alphabetical

Zenodotus c248 bce

subject

Callimachus c240 bce "μέγα βιβλίον μέγα κακόν"

big catalogues

Registrum Anglie de Libris Doctorum et Auctorum (13th cent)

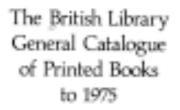
Conrad Gesner, Bibliotheca Universalis ... omnium scriptorum in tribus linguis ... I 545



Edward Gibbon 1737-1794



Melvil Dewey 1851-1931



COTTO-CRAAN

cataloguing



systems of classification

Library of Congress Thomas Jefferson -- Denis Diderot -- Francis Bacon

Dewey [Dui] Decimal

Dewey Decimal System

To learn more about what the parts of a book's

Overview

- 000 Generalities
- 100 Philosophy & psychology
- 200 Religion
- 300 Social sciences
- 400 Language
- 500 Natural sciences & mathematics
- 600 Technology (Applied sciences)
- 700 The arts
- 800 Literature & rhetoric
- 900 Geography & history

Clive Bingley London K-G-Saur London-München-New York-Baris



- B -- PHILOSOPHY, PSYCHOLOGY, RELIGION WP version Word version
- C -- ALXILLARY SCIENCES OF HISTORY WP version Word version
- D -- WORLD HISTORY AND HISTORY OF EUROPE, ASIA, AFRICA, AUSTRALIA, NEW
- F ... HISTORY OF THE AMERICAS WP version Wood version
- G -- GEOGRAPHY, ANTHROPOLOGY, RECREATION WP version Word version
- 3 -- POLITICAL SCIENCE WP version Word version

- M -- MUSIC AND BOOKS ON MUSIC WP version Word version
- N -- FINE ARTS WP version Wood version

- T -- TECHNOLOGY WP version Word version
- U. -- MILITARY SCIENCE WP version Word version
- V -- NAVAL SCIENCE WP version Word version Z -- BIBLIOGRAPHY, LIBRARY SCIENCE, INFORMATION RESOURCES (GENERAL) - WE

selection

selection

Alexandria

Aristophanes c195 bce

Aristarchus c153 bce

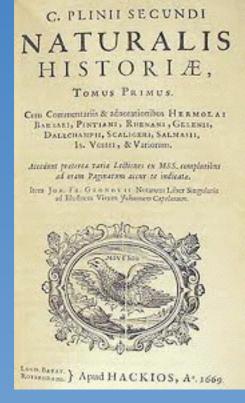
scholarly editions editorial commentary



justifiable

"Even for studies, where expenditure is most honorable, [developing libraries] is justifiable only so long as it is kept within bounds. is the use of having countless books, and libraries whose mere titles their owners can scarcely read through in a whole life time? The mass of them does not instruct but rather burdens the student; and it is much better to surrender yourself to a few authors than to wander through many. Forty thousand books were burned at Alexandria; let someone else praise this library ... as did Titus Livius, who says that it was the most distinguished achievement of the good taste and solicitude of kings. was no "good taste" or "solicitude" about it, but only learned luxury--no, not even learned, since they had collected the books, not for the sake of learning, but to make a show, just as many who lack even a child's knowledge of letters use books, not as the tools of learning, but as decoration for the dining room."

--Seneca, De Tranquillitate Animi c. 63



breaking bounds?

"We have collected in 3 volumes 20,000 noteworthy facts."

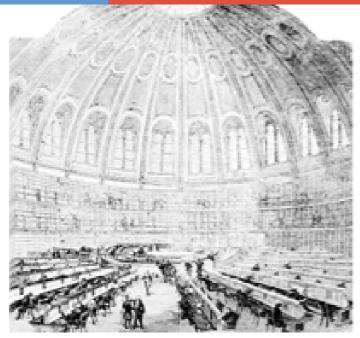
--Pliny the Elder

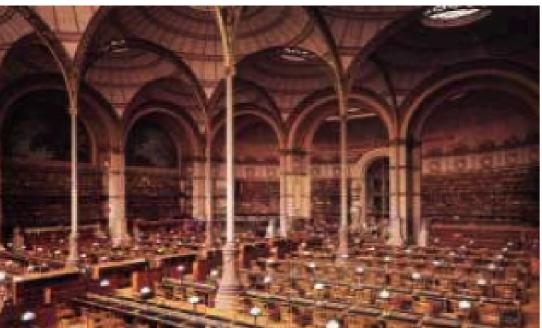
Natural History c. 77-79 CE

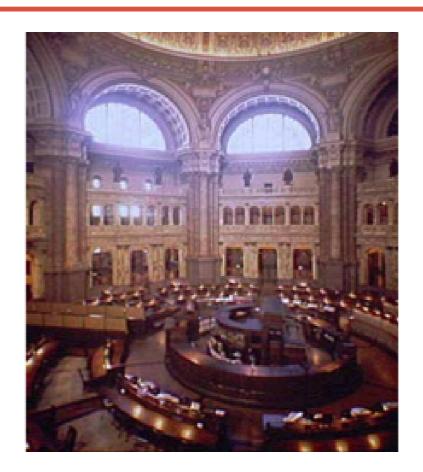
Domitius Piso: thesauros oportet esse, non libros

encircling

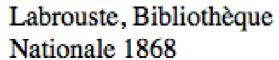
Smirke, British Musem Reading Room, 1851

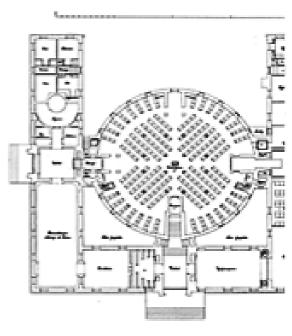






Pelz/Casey Reading Room, LOC, ca 1898





Asplund, Stockholm City Library, 1928

curriculum, n.

View as: Outline | Full entry

Pronunciation: /kəˈrɪkjʊləm/

Forms: Pl. curricula.

Etymology: Latin, = course, career (lit. and fig.): see above.

circling around

A course; spec. a regular course of study or training, as at a school or university. (The recognized term in the Scottish Universities.) curriculum vitae n. the course of one's life; a brief account of one's career.

search, v.

Text size:

Quotations: Show all | Hide



View as: Outline | Full entry

Pronunciation: /S3!tʃ/

Forms: α. ME-15 serch(e, cerche, ME sorche, ME-15 sarche, searche, 15 sarych, scarche, ... (Show More)

Etymology: < Old French cerchier (modern French chercher), corresponding to Provençal cercar, Italian cercare to seek, Spanish cercar, Portuguese cercar to surround < late Latin circare to go round, < Latin circus circle. (Show Less)

To explore, examine thoroughly.

encyclopaedia | encyclopedia, n.

Quotations: Show all | Hid



View as: Outline | Full entry

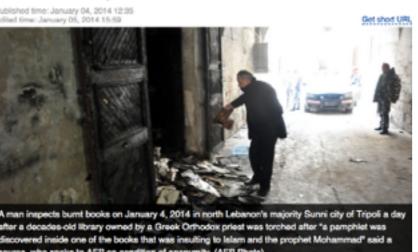
Pronunciation: /ɛnˌsaɪkləu'piːdɪə/

Forms: Also 16 in adapted forms encyclopædie- -y, -pedie, -pedy, -ped(e.

Etymology: < late Latin encyclopædia, < pseudo-Greek έγκυκλοπαιδεία, an erroneous form (said to be a false reading) occurring in MSS. of Quintilian, Pliny, and Galen, for ἐγκόκλιος παιδεία 'encyclical education', the circle of arts and sciences considered by the Greeks as essential to a liberal education (compare ENCYCLICAL adj. 1).

The spelling with æ has been preserved from becoming obsolete by the fact that many of the works so called have Latin titles, as Encyclopædia Britannica,

housands of books, manuscripts torched in fire at historic.ebanese library (PHOTOS)





"Libraries are the Memory of Mankind"

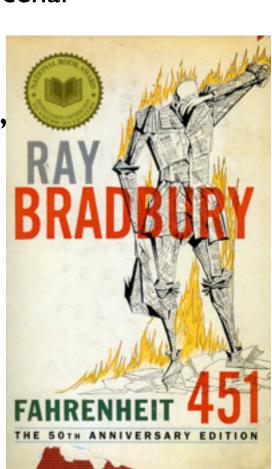
--Goethe

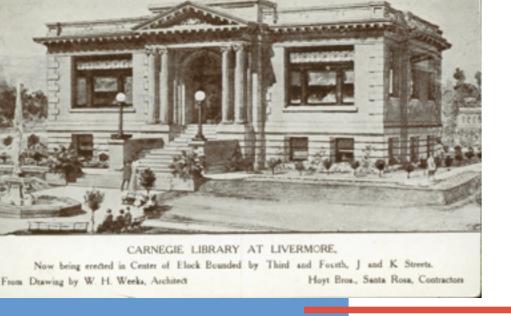
"Reserves against a spiritual winter"

--Yourcenar

Babylon, Pergamum, Alexandria, Syria, Tripoli, Sarajevo, Baghdad, Timbuktu ...







obligations

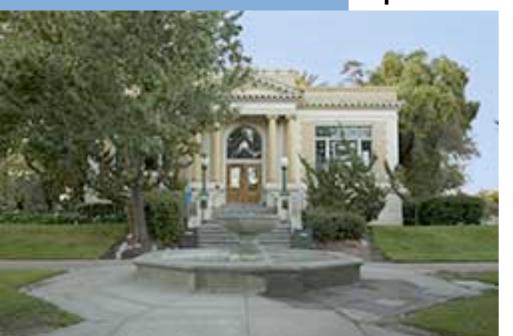
a public good

acquisition by ...

pillage

deposit

purchase



public funds -- public libraries act (UK 1850) philanthropy -- (Carnegie libraries)

the library
history
properties
transformation

new media

Notes & Queries, 1854, 1855

Photography applied to Catalogues of Books.— May not photography be usefully applied to the making of catalogues of large libraries? It would seem no difficult matter to obtain any number of photographs, of any required size, of the title-page of any book. Suppose the plan adopted, that five photographs of each were taken; they may be arranged in five catalogues, as follows: - Era, subject, country, author, title. arranged alphabetically, would form five catalogues of a library probably sufficient to meet the wants of all. Any number of additional divisions may be added. By adopting a fixed breadth—say three inches-for the photographs, to be pasted in double columns in folio, interchanges may take place of those unerring slips, and thus librarians aid each other. I throw out this crude idea, in the hope that photographers and librarians may combine to carry it out. ALBERT BLOR, LL.D.

Dublin.

Photographic Copies of Ancient Manuscripts. — Might not photography be well employed in making facsimiles of valuable, rare, and especially of unique ancient manuscripts? If copies of such manuscripts could be multiplied at a moderate price, there are many proprietors of libraries would be glad to enrich them by what, for all purposes of reference, would answer equally well with the originals.

This subject, which has already been touched upon in our columns, has not yet received the attention it We have now before us a photographic copy of a folio page of a MS. of the fourteenth or fifteenth century, on which are inscribed a number of charters; and, although the copy is reduced so as to be but about 2 inches high and 1 tooad, it is perfectly

Consider a future device for individual use, which is a sort of mechanized private file and library. It needs a name, and, to coin one at random, "memex" will do.

Bush's inspiration

clock

mill/store

logarithm

loom

governors

vacuum tube

transistor

chip

camera

typewriter

movie camera

automobile

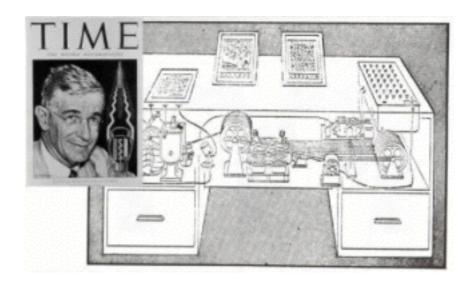
telephone exchange

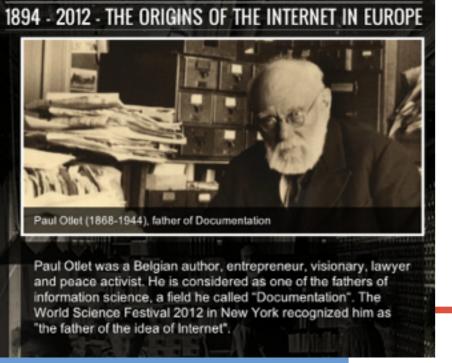
Vo(co)der

thermionic tube

Leibniz

Babbage





ploughshares before swords?



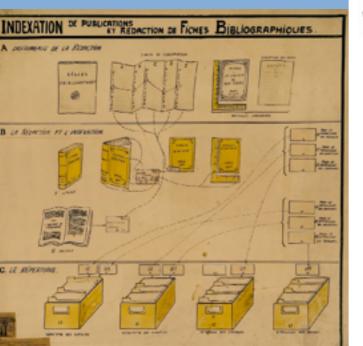
Paul Otlet 1868-1924

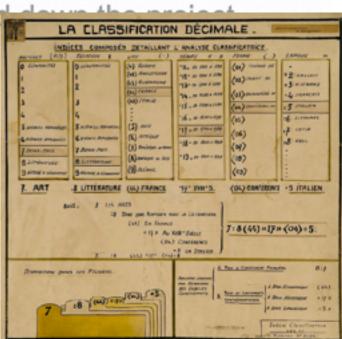
Otlet, documentalism, & the Mundaneum

Otlet and La Fontaine aimed to preserve peace by assembling knowledge and making it accessible to the entire world. They built an international documentation center called Mundaneum. They invented the modern library Universal Decimal Classification system. La Fontaine won the Nobel Peace Prize in 1913.

By 1935, their Mundaneum grew to a staggering 16 million cards covering subjects ranging from the history of hunting dogs to finance!

World War II and the death of both founders slowed google.com/cultural institute



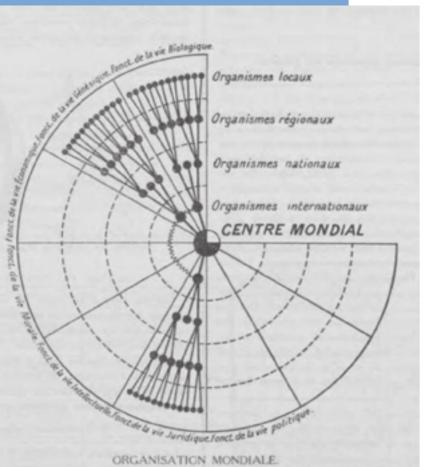


413.1 Outillage. Les machines du travail intellectuel.

Sous nos yeux est en voie de se constituer une immense machinerie pour le travail intellectuel. Elle se constitue par la combinaison des diverses machines particulières existantes dont, malgré l'individualisme et le particularisme des inventeurs, les l'aisons nécessaires s'entrevoient. Cette machinerie est aujourd'hui à peu près exclusivement au service de l'industrie, du commerce, de la finance. Demain on la mettra au service de l'administration et du travail scientifique et alors ce seront de merveilleux résultats généraux qui en seront recueillis.

413.12 Machines pour les diverses opérations.

Pour marquer où nous ont conduit les perfectionnements les plus récents, il convient de grouper les faits sous des rubriques par grandes opérations; enregistrer les faits, les multiplier, les transformer, les conserver en des ensembles, les présenter à la lecture, les synthétiser, transporter les documents,





FONCTIONS OU TRAVAIL SCIENTIFIQUE

A CONSERVATION

B) DIFFUSION OF

1934

(Depresentation processes)

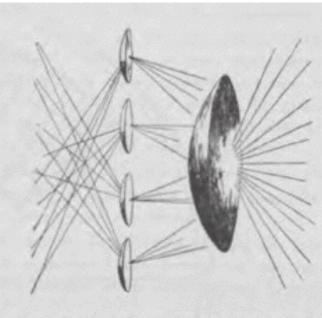
5. AUCENTRE
BISLIO THE QUE
BISLIOSHAPTIE
BISLIOSHAPTIE
ENCYCLOPEDIE
FATION
TATION

1. UNIVERSITÉ CENTRALE

\$. TOURS UNIVERSITAINES

"un Trésor et un instrument"

Traité de Documentation: Le Livre sur le Livre, Théorie et Pratique,



L'ACTION DU CENTRE MONDIAL.



PHILOSOPHICAL TRANSACTIONS.

Munday, March 6. 1665.

The Contents.

An Introduction to this Tract. An Accompt of the Improvement of Optick Glasses at Rome. Of the Observation made in England, of a spot in one of the Belts of the Planet Jupiter. Of the motion of the late Comet pradicted, The Heads of many New Observations and Experiments, in order to an Experimental History of Cold; together with some Thermometrical Discourses and Experiments. A Relation of a very odd Monstrous Calf. Of a peculiar Lead-A Relation of a very oad wonfrous Cair. Of a peculiar Lead-Ore in Germany, very useful for Eslays. Of an Hungarian Bo-lus, of the same effect with the Bolus Armenus. Of the New Ame-rican Whale fishing about the Bermudas. A Narative concerning the success of the Pendulum-watches at Sea for the Longi-tudes; and the Grant of a Patent thereupon. A Catalogue of the Philosophical Books publishe by Monsieur de Fermat, Counsellour at Tholouse, lately dead. Beginning the Thirty lift Volume.

Numb. 364.

PHILOSOPHICAL TRANSACTIONS.

For the Months of January, Feb. March and April. 1720.

The CONTENTS.

- I. Some Remarks on a late Effay of Mr. Callini, wherein
- I. Some Remarks on a late Effay of Mr. Cassini, wherein he proposes to find, by Observation, the Parallax and Magritude of Strius. By Edmund Halley, L. L. D. Astron. Reg. Geom. Prof. Savil. & R. S. S. II. An account of the External Obstailar, and other Salivary Glands: Also of the Insertions of all the Lymphaticks (as nell above as below the Saliberta mention the Petay; which Glands and Insertions have none kitherto been mentioned, or not truly described by any Authors. By Richard Hale, M. D. Reg. Soc. & Col. Med. Lond. Soc.

 III. De Piet Constantinopoli grassante. Anisore mapers V. Cl. Emanucle Timone. M. D. Hoc (criptum ab Austrae Clarissima, qui Constantinopoli per mulios annes Medicinam secret, excellentissimo Ablegato Britannico, Roberto Sutton, Eq. Aurate, traditum, cipálim Equitis permissa, cam Societate Regia communicavis idem R. Hale, M. D.

 V. An Account of a Luminous Appearance in the Air, sent a Dublin on January the 12th, 17% By Philip Percival, Figs Berester to the Right Honourable the Lard Percival, F.R. S. and communicated by his Lordship to the Royal Society.

WikipediA The Free Encyclopedia

origins!

collection or selection

"The external make-up of a book, its format and the personality of its author are unimportant provided that its substance, its sources of information and its conclusion are preserved and can be made an integral part of the organization of knowledge, an impersonal work, created by the efforts of all ... the ideal ... would be to strip each article or each chapter in a book of whatever is a matter of fine language or repetition or padding and to collect separately on cards whatever is new and adds to knowledge."

--Paul Otlet, Selected Essays

media

digital liberation

the age of information

"Information wants to be free"

--Stewart Brand

"filosofar vuol esser libero"

-- Galileo ...

"libertas philosophandi"



--Alcinous, Kepler, ...

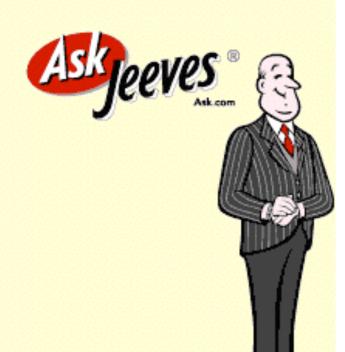


freedom to search









1988 — WAIS

1990 — Archie

1992 — Veronica (Gopher)

1994 — Lycos

1995 — Alta Vista, Yahoo

1996 — Inktomi, Bomis



1997 — Ask Jeeves

1998 — Overture (aka GoTo.com)





"artificiality of systems of indexing ... the human mind ... operates by association" —Bush

real change?



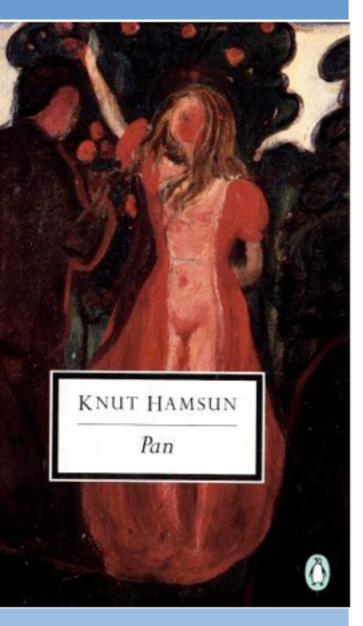
yet another hierarchical officious oracle



to organize the world's information

selection

limits to liberation?



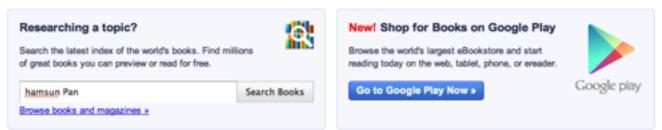
The hunter, that's me, and she will give me a sign with her eyes to make me understand. And when she comes my heart understands all, and it no longer beats, it peals. And she is naked under her dress⁷ from head to foot, and I lay my hand upon her.

Tie my shoelace! she says with flaming cheeks. And a little later she whispers directly against my mouth, against my lips, Oh, you're not tying my shoelace, sweetheart, you're not tying . . . not tying my . . .

But the sun dips its disk into the sea and then rises again, red, renewed, as if it has been down to drink. And the air is full of whisperings.

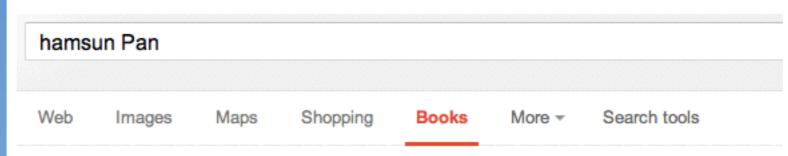
An hour later she says against my mouth, Now I must leave you.





My library

no probs



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<u>Pan</u>



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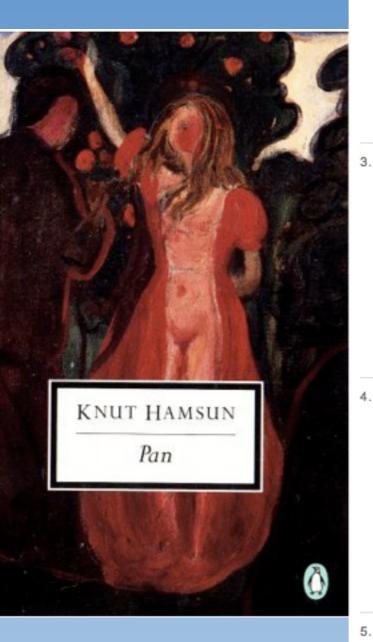
<u>Pan</u>

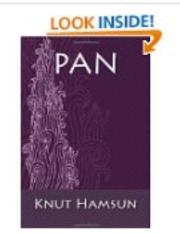


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selection





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Google's Book Search: A Disaster for Scholars



By Geoffrey Numberg
Whether the Google books settlement passes
muster with the U.S. District Court and the
Justice Department, Google's book search is
clearly on track to becoming the world's largest
digital library. No less important, it is also
almost certain to be the last one. Google's fiveyear head start and its relationships with
libraries and publishers give it an effective
monopoly. No competitor will be able to come

ofter it on the same scale. Nor is technology going to lower the cost of entry. Scanning will always be an expensive, labor-intensive project. Of course, 50 or 100 years from now control of the sollection may pass from Google to somebody she—Elsevier, Unesco, Wal-Mart. But it's safe to assume that the digitized books that scholars will be working with then will be the very same ones that are sitting on Google's servers today, augmented by the millions of titles published in the otherion.

That realisation lends a particular urgency to the concerns that people have voiced about the settlement —about pricing, access, and privacy, among other things. But for scholars, it raises mother, equally basic question: What assurances do we have that Google will do this right?

Doing it right depends on what exactly "it" is. Google has been something of a shape-shifter in fescribing the project. The company likes to refer to Google's book search as a "library," but it generally talks about books as just another kind of information resource to be incorpocated into Greater Google. As Sergey Bria, on-founder of Google, puts it: "We just feel this is part of our core mission. There is fantastic information in books. Often when I do a search, what is in a book is policy about of what I find on a Web site."

Seen in that light, the quality of Google's book search will be measured by how well it supports the lamiliar activity that we have come to think of as "googling," in tribute to the company's specialty: entering in a string of keywords in an effort to locate specific information, like the dates of the Franco-Prussian War. For those purposes, we don't really care about metadata—the whos, whats, wheres, and whens provided by a library catalog. It's enough just to find a chunk of a book that supports our needs and barrel into it sideways.

But we're sometimes interested in finding a book for reasons that have nothing to do with the information it contains, and for those purposes googling is not a very efficient way to search. If rou're looking for a particular edition of Leaves of Grass and simply punch in, "I contain multitudes," that's what you'll get. For those purposes, you want to be able to come in via the book's metadata, the same way you do if you're trying to assemble all the French editions of Rousseau's Social Contract published before 1800 or books of Victorian sermons that talk about profamity.

Or you may be interested in books simply as records of the language as it was used in various periods or genres. Not surprisingly, that's what gets linguists and assorted wordinistas dressilized at the thought of all the big historical corpors that are coming online. But it also raises illuring possibilities for social, political, and intellectual historians and for all the strains of literary philology, old and new. With the vast collection of published books at hand, you can track the way happiness replaced felicity in the 17th century, quantify the rise and fall of peopaganda or industrial democracy over the course of the 20th century, or plack out all the Victorian novels that contain the phrase "gentle reader."



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Do Que É Feito O Pensamento

by STEVEN PINKER - Psychology 1899 - 244 pages
Page 411

no really good.7" Além disso, como ressaltou o linguista Geoffrey Nunberg,

embora de para imaginar o diálogo How brilliant was it? Very [Não



VIDA SOCIAL DA INFORMAÇÃO, A

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obligations

control or freedom?

"A record if it is to be useful to science must be continuously extended, .. stored ... consulted ... The camera hound ... wears on his forehead a lump little larger than a walnut ... every time [the scientist] looks at something worthy of the record, he trips the shutter



--Vannevar Bush, "As We May Think," 1945

Bush states that "man's spirit should be elevated if he can better review his shady past," but he, like Morse, does not take into account the fact that it would not only be he who could review it. —Ciara

old tradeoffs

Morse paradox

"The record of intelligence is made in a permanent manner

. . .

Communications are secret to all but the persons for whom they are intended."

— Morse to Congress

"Presumably man's spirit should be elevated if he can better review his shady past and analyze more completely and objectively his present problems."

— Bush

obligations

[T]hose who find information valuable economically will find a way to track personal information despite any legal restrictions. -Kiyana

price of freedom?



and should we worry?

"You have zero privacy.... Get over it!" --Scott McNealy, Sun Microsystems



"If you have something you don't want anyone to know, maybe you shouldn't be doing it in the first place."

--Eric Schmidt, Google

trade secrets?

The Future of Internet Freedom

By ERIC E. SCHMIDT and JARED COHEN MARCH 11, 2014



TECHNOLOGY

Revelations of N.S.A. Spying Cost U.S. Tech Companies

By CLAIRE CAIN MILLER MARCH 21, 2014



EMAIL

SAN FRANCISCO — Microsoft has lost customers, including the government of Brazil.

IBM is spending more than a billion dollars to build data centers overseas to reassure foreign customers that their information is safe from prying eyes in the United States government.

And tech companies abroad, from Europe to South America, say they are gaining customers that are shunning United States providers, suspicious



IBM's display at a German trac is spending \$1.2 billion to builk centers around the world to lu who are sensitive about the lo Fabrizio Bensch/Reuters

Google, once disdainful of lobbying, now a master of Washington influence



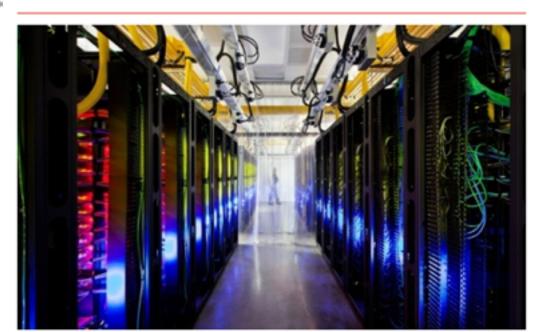
Google's Eric Schmidt is no stranger to D.C. He has spent lots of time at the White House and on Capi Hill lobbying on behalf of his filten technology company. But his relationship with Washington and the Obama administration has not always been a comfortable one.

US tech giants knew of NSA data collection, agency's top lawyer insists

NSA general counsel Rajesh De says big tech companies like Yahoo and Google provided 'full assistance' in legally mandated collection of data

Spencer Ackerman in Washington theguardian.com, Wednesday 19 March 2014 14.40 EDT

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SECURITY

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By Chris Williams, 9 Apr 2014 Follows



The code behind the C-b Obama Lets N.S.A. Exploit Some Internet Flaws, Officials Say

By DAVID E. SANGER APRIL 12, 2014



Edward J. Snowden, the N.S.A. leaker, speaking to European officials via videoconference last week. Frederick Florin/Agence France-Presse - Getty Images

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Heartbleed vulnerability may have been exploited months before patch [Updated]

Fewer servers now vulnerable, but the potential damage rises.

radical response?

"For almost all of human history, most of what humans experienced was quickly forgotten. Today, however, retention of digital data is (relatively) easy and cheap. As a consequence, and absent other considerations, we keep rather than delete it. ... I propose that we shift the default when storing personal information back to where it has been for millennia, from remembering forever to forgetting over time."

--Victor Mayer-Schönberger, "Useful Void," 2007

Snapchat By using law to mandate software writers to automatically delete content after a certain time frame, it would give the ability for companies to store and move data just like you would reorganize and shred content out of a cabinet after a few years in corporate —Johnny Li America.

transitory pleasures?



revenue model, data like this suggests

that native advertising is a pretty viable

Q

NSA overhaul may require phone carriers to store

more data

However, this connection is a function of **our society** rather than search and storage technology itself. —Shannon

serious crimes. The retained data typically indicates the people who

were involved in a communication, where they were and how often they

communicated, but it does not reveal the content of the conversations



or messages.

While his proposition amounts to a relatively easy fix and would drastically reduce the amount of compromising data floating about, people would still be willing to give away this sort of data for free, probably in return for a service(i.e. social networking), because they don't truly grasp what surveillance structures like the NSA can accomplish.

-Nikhil

The commercial internet has to a significant degree been built on storage and search. So has the NSA. Using Bush and Mayer-Schönberger (and perhaps Morse and Babbage), argue whether it is or isn't possible to break the link between storage and search, on the one hand, and surveillance, on the other.

your view

no link in the first place - I

impossible to break - 28

intrinsic, inherent, necessary

institutional power, commercial power, individual weakness, collective failing, national failing

possible to break - 14

self-control, legal mandate

unlikely

unwise

sacrificing safety in the name of privacy is a difficult choice to make. -Gabe

coming up

4/17/2014: Advent of the Internet

Berners-Lee, Tim. 2000. "info.cern.ch." Chapters 1-3 in Weaving the Web. New York City: HarperCollins.

Read: Chapters 1-3, [299-317 in course reader]

Source: Course reader

Additional reading:

 Leiner, Barry M., Vinton G. Cerf, David D. Clark, Robert E. Kahn, Leonard Kleinrock, Daniel C. Lynch, Jon Postel, Larry G. Roberts, Stephen Wolff, "A Brief History of the Internet, 2" The Internet Society. [hyperlink 2]