The debate over Google involves a European newspaper taking on an American technology leader. Are national differences driving the debate here? If so, how? If not, what are the main drivers?
a long history
Facebook will build a new data center in the Danish city of Odense, the California-based tech company said at a press conference with local authorities, only the third such facility outside of the United States.

The new facility will be built on the outskirts of Denmark's third largest city, best known as the birthplace of fairy tale writer Hans Christian Andersen.

It will be powered exclusively by renewable energy, McEntegart said, adding that the cold climate could help to cool servers instead of relying on air conditioners.
The national difference … centering on views that the Internet should be treated as more of a library and that Google, as a media and "news" distribution site —Kevin

Kevin Ponn
Natalie Mu
JT Kim
Gabriela Cibilis
"a sort of mechanized private file and library" — Bush, 1945

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

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


"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

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libraries
the right model?

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

-- Librarian's Guide to Cyber Space
hidden assumptions
do they come with obligations?

acquisition
  "record ..."
organization
  "index ... association"
preservation
  "stored ..."
openness?
  "access to and command over ... who? how? to what?"
authentication?
“make faithful 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.”
extending, storing, consulting, indexing

"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
old tech 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

plus or minus?

“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
to record or not to record?

"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."

who keeps what, and why?

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. These make up many hundred Folio’s. The Manuscript Library ... contains 6,610 Volumes.”

—Martin Lister, FRS, 1698
road ahead

history

libraries

transition

opposing views
Oracle Bones
Anyang, c1 100 bce

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

--Helliwell, 1998

record & store

**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)
"From Scepsis came the Socratics Erastus and Koriskus and Neleus ... who received the library of Theophrastus, in which was the library of Aristotle ...; he was the first we know of to have collected books and he taught the kings in Egypt the arrangement of a library. And Theophrastus gave it to Neleus; and he carrying it away to Scpesis ... and when they saw the eagerness of the Attalid kings ... in seeking books for the equipping of the library in Pergamum, they hid them ... then after a long time ... sold the books of Aristotle and Theophrastus for much money."

- Strabo, 64 BCE - 23 CE

a new generation

Lyceum [Greece]
(Aristotle)

Pergamum
[Turkey]
c 197 BCE
200,000 scrolls

Alexandria

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

"Anthony gave the 200,000 books in the library of Pergamum ... as a gift."
light in the “dark ages”

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
inherited imperatives

monastic record

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" books chained, others portable;
loans recorded

Trithemius (15 - 16th cent)
Mazarin (17th cent)
going secular

Paris (Charles V, 1338-1380)
Beijing (Ming Dynasty, 15c)
Florence (Cosimo de Medici, 1389-1464)
Vatican (15th century)
Escorial (16th century)
British Museum, 1753
vulnerability

**national library**

"Libraries are the Memory of Mankind" — Goethe

"Reserves against a spiritual winter" — Yourcenar

Babylon, … Pergamum, … Alexandria, … Syria, Tripoli, … Sarajevo, … Baghdad, … Timbuktu … Mosul

**Alexandrian acquisition**

"[T]he Ptolomies "sought to make their capital the cultural center of the Greek world … what they couldn't buy … confiscated" — Lionel Casson

"More than 700 monasteries were dissolved under emperor Joseph II in the lands of the Habsburg monarchy between 1782 and 1787" — Buchmayr, *Lost Libraries*
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)
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

1851 fire destroys 35,000 books

1897 Thomas Jefferson building
a public good
acquisition by ...
  (pillage)
  deposit
  purchase
public funds -- public libraries act (UK 1850)
philanthropy -- (Carnegie libraries)

a private place
for the public
Cheetham, England, 1653
(first public library)
Cranston Library, Reigate 1701
(first public lending library)

Coffee-House libraries,
18th century
Suppose you guess where people spend at least some of their time in the city.

For instance, what attractions draw the most visitors?

A. Major museums, like the Metropolitan Museum of Art, Museum of Modern Art, American Museum of Natural History, Brooklyn Museum or Museum of the City of New York.

B. Libraries, including the neighborhood branches and research centers.

C. Performing arts, like those at Lincoln Center, Carnegie Hall, City Center and Snug Harbor.

D. Sports teams like the Yankees, Mets, Knicks, Nets, Rangers, Jets and Giants.
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."

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

1248, paper accepted by the notaries of Languedoc
Beijing libraries and bun shops
Mudie's Select Library - 3 volume novels
Mechanics subscription libraries
Tabard Inn 5¢ Booklover's Library

bibliothekswesens
1953, rental libraries: 600 million circulations
(20 times the circulation of public libraries)
—Kunze et al, *Lexicon des Bibliothekswesens*
information organization

Alexandrian order
  alphabetical — Zenodotus c248 bce
  subject — Callimachus c240 bce
  "μέγα βιβλίον μέγα κακόν"

big catalogues
  Registrum Anglie de Libris Doctorum et Auctorum
  (13th c.)
  Conrad Gesner, Bibliotheca Universalis ... omnium
  scriptorum in tribus linguis ...1545
material organization

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

Dewey [Dui] Decimal

Edward Gibbon
1737–1794

Melvil Dewey
1851–1931
all or nothing?

libraries are

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."
enduring Alexandrian fantasy

"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
promises, promises

“Our next edition will be found to contain double the amount of information ever before inserted into it”  —Longworth’s American Almanac, 1799

an early count

"We have collected in 3 volumes 20,000 noteworthy facts."  — Pliny the Elder, Natural History c. 77-79 CE

a warehouse full

Domitius Piso: thesauros oportet esse, non libros ...
"Even for studies, where expenditure is most honorable, [developing libraries] is justifiable only so long as it is kept within bounds. What 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. There 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
"useful information" establishing selective bounds
Storage & Search

road ahead

“atoms to bits”
—Nicholas Negroponte
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. These being 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 Bloor, L.L.D.

Photographic Copies of Ancient Manuscripts.—Might not photography be well employed in making fac-similes 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 deserves. 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 1½ broad, it is perfectly...]

new media

Notes & Queries, 1854, 1855
collection or selection?

“The external make-up of a book, its format and the personality of its author are unimportant ... 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, 1990
Knut Hamsun's *Pan*

And when she comes, my heart knows all, and no longer beats like a heart, but rings as a bell. I lay my hand on her.

“Tie my shoe-string,” she says, with flushed cheeks...

The sun dips down into the sea and rises again, red and refreshed, as if it had been to drink. And the air is full of whisperings.
...or continued suppression?

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,
it's all just information

... the common denominator

"passionate about the topic ... how difficult it is to find information in scholarly journals and books ...

passionate about this ... to organize the world's information ... here's a book I was reading on the plane down ..."
bush league?

**swords to plough shares**
from “destructive gadgets” to postwar world

**revisionism**
“inherited knowledge of the ages … Leibniz, Babbage, Brady”

**catastrophe**
“Mendel’s concept … lost to the world for a generation”

**compression**
“a million volumes … one end of a desk … a billion … in a moving van”

**linking**
“The human mind … operates by association”
from strip to string

1973 — grep (Ken Thompson)
globally search a regular expression and print
1988 — WAIS
1990 — Archie
1992 — Veronica (Gopher)
1994 — Lycos
1995 — Alta Vista, Yahoo
1996 — Inktomi, Bomis
1997 — Ask Jeeves
1998 — Overture (aka GoTo.com)
real change?

yet another hierarchical officious oracle

to organize the world's information
the logical next step

opposing views

Yes 26%
No 42%
Maybe 32%

Kevin Ponn
Natalie Mu
JT Kim
Gabriela Cibilis

history

transition

libraries

Leave Facebook if you don’t want to be spied on, warns EU

European Commission admits Safe Harbour framework cannot ensure privacy of EU citizens’ data when sent to the US by American internet firms

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

Google, once disdainful of lobbying, now a master of Washington influence
expanding search: searching the searchers

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

"If you have nothing to hide you have nothing to fear."

—Mark Zuckerberg, Facebook

trade secrets?
“heavy-handed regulation ... attack the entire Internet and its magic” — Schmidt

“it is simply not enough to state ... that you want to make the world a “better place.”” — Döpfner

“Six years ago I asked Eric Schmidt what corporate innovations Google was putting in place to ensure that its interests were aligned with its end users.... Schmidt’s answer was the quintessence of absolutism: “trust me; I know best.” — Zuboff
The common European debate and criticism of Google has been going on for almost a decade. Google's near monopoly on search engines on the Internet and their explosive growth into other data and tech sectors of the market seems to worry European politicians and citizens far more than it does for their American counterparts. European concerns revolve around the perceived threat of Google as a "harmful monopoly", seeing Google as more of an information handling company. The national difference between European countries and the United States lies in several factors centering on views that the Internet should be treated as more of a library and that Google, as a media and "news" distribution site, is wrong to have such a monopoly in the tech sector. They have levied several charges and requests for anti-trust laws to be put into action to break up Google because they feel uncomfortable with how powerful they have grown. They see the threat of big data and its encroachment on public and private safety while Americans appear to be unaware or uncaring about it. This might be because Europe as a region has taken a more aggressive stance in using their anti-trust laws while America has had periods where they see no need to enforce them at all. Americans seems to be more free and trusting of tech with their privacy than Europeans, on average.

— Kevin Ponn
The national differences along with other anxieties of security between America and European nations shows the range of driving differences that occur within this debate. With the history of information regarding how Europe views America and vice versa, the technology territory becomes an issue of not only technology but also culture, pride, and information security driving factors.

With a vast array of online search engines in America, selection is wide and paves the way for other countries to adopt the search engines into their own nations, as a way of convenience. However there are fears from European countries that notice the heavy influence of taking on adoptions of American technology. Examples include France dreading the influences of American culture into their own, Germans being edged out in the industry and becoming less profitable and less efficient, and the overall European nation fearing of the Edward Snowden incident. It is a mix of national differences and pride of whose technology is best for each country. Since Google has dominated a majority of Europe’s search engine sources, the fear of American controlling too much of the information data in technology brings unease of knowing too much of Europe’s confidential matters with the access from Google, the American technology.

— Natalie Mu
As Döpfner points out, “the close relationship between major American online companies and the American secret service” [5] has become general knowledge thanks to Edward Snowden. Although this raises obvious concerns about the inordinate power and intelligence that this gives to Google as a corporation and the United States, the anxiety is more fundamental than the issue of international competition. Zuboff describes our current situation as a “21st century Faustian pact” through which we perpetually sacrifice our privacy in exchange for the convenience of accessing information. It was only after using DuckDuckGo as my primary search engine for a week and noticing my growing desire to switch back to Google for a minimal improvement in efficiency that I recognized how imperceptible and automatic my pre-established preference for and reliance on Google was. While it’s hard to divorce the elements of national differences and corporate self-interest from Döpfner’s letter (given his position), I think that it’s even harder to dismiss his concerns about the protection of individual privacy and how limited our choices in accessing digital information may become in the future. That being said, I have switched back to using Google as of last week... — JT Kim
I’m not sure whether the main drivers of this debate are national differences or simply power interests. The NSA is not complaining, but is it because it is American or because it is also getting a share in that power? Google seems to be aligned with Bush’s idea of a better way to record and retrieve human advances. Eric Schmidt hops onto this advantage and presents the internet as “the main motor of economic growth”, mentioning that their storage gives companies the opportunity for a bigger market. The problem is that besides the growth that they are having, European companies know that Google is getting an even bigger growth. Since Google’s power is therefore growing so much, as Dopfner puts it, such companies “have no alternative” but to stay in Google. I believe this is what drives the debate—they all talk about innovation and growth and people, but is that what truly motivates Google and European companies? I understand it as European companies getting a little desperate because their share in all this is smaller. Zuboff threatens that “it is this loss of trust that stands to kill innovation” but I have to ask: if the European companies could to what Google is doing—would they stop doing it to save the people’s innovation? I highly doubt it.

—Gabriela Cibilis
13 Apr: Social Implications of the Internet (Part 1)

The internet, we are told, has made interconnection instantaneous, finally annihilating time and space. So in this class we shall consider the question, why on earth are we all here?

Required Reading


Source: econlib.com [hyperlink]


Source: Course reader