

# Social Media

CSCW Fall 2015

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# References

- McLuhan, [Theories of Media](#)
- Jenkins et al. Confronting the challenges of participatory culture: Media education for the 21<sup>st</sup> century, 2006. (see GitHub resources)
- [Tom Standage, Writing in the Wall](#)
- [What is Web 2.0 by O'Reilly](#)
- Carol Jones video on Web 2.0: <http://blip.tv/file/508079>
- Web 2<sup>W</sup>, by Raman <http://portal.acm.org/citation.cfm?id=1461928.1461945>

# Learning Objectives

- Learn (think) about the principles underlying Social Media. Be able to articulate some of the benefits and limitations of its use.
- How does it fit with other CSCW tools? (often used for organization...)
- *Social media, fad or here to stay?*

# Outline

- Theories of media
- Social media technologies
- Characteristics of social media
- Social media channels and their affordances
- Opportunities and challenges

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# Understanding Media

The Extensions of Man

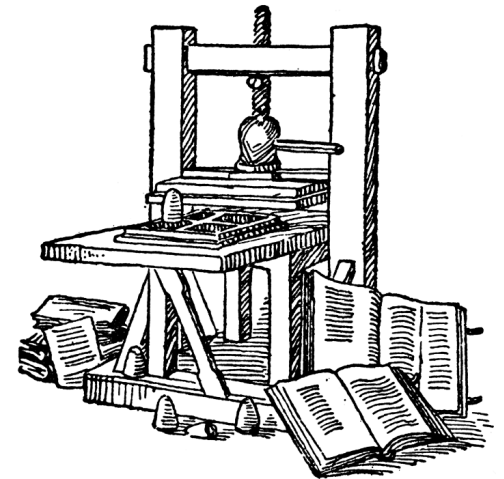


by **Marshall McLuhan**  
Author of *THE GUTENBERG GALAXY*

# History of Media [McLuhan]

McLuhan proposed that media shapes society and culture—he defines media as “*ways of communicating that are extensions of a human being’s senses*” [McLuhan 1955]

- Tribal era
- Literary era
- Print era
- Electronic era (“The Global Village”)



- *"We shape our tools and thereafter our tools shape us",*  
Laws of Media by Marshall McLuhan





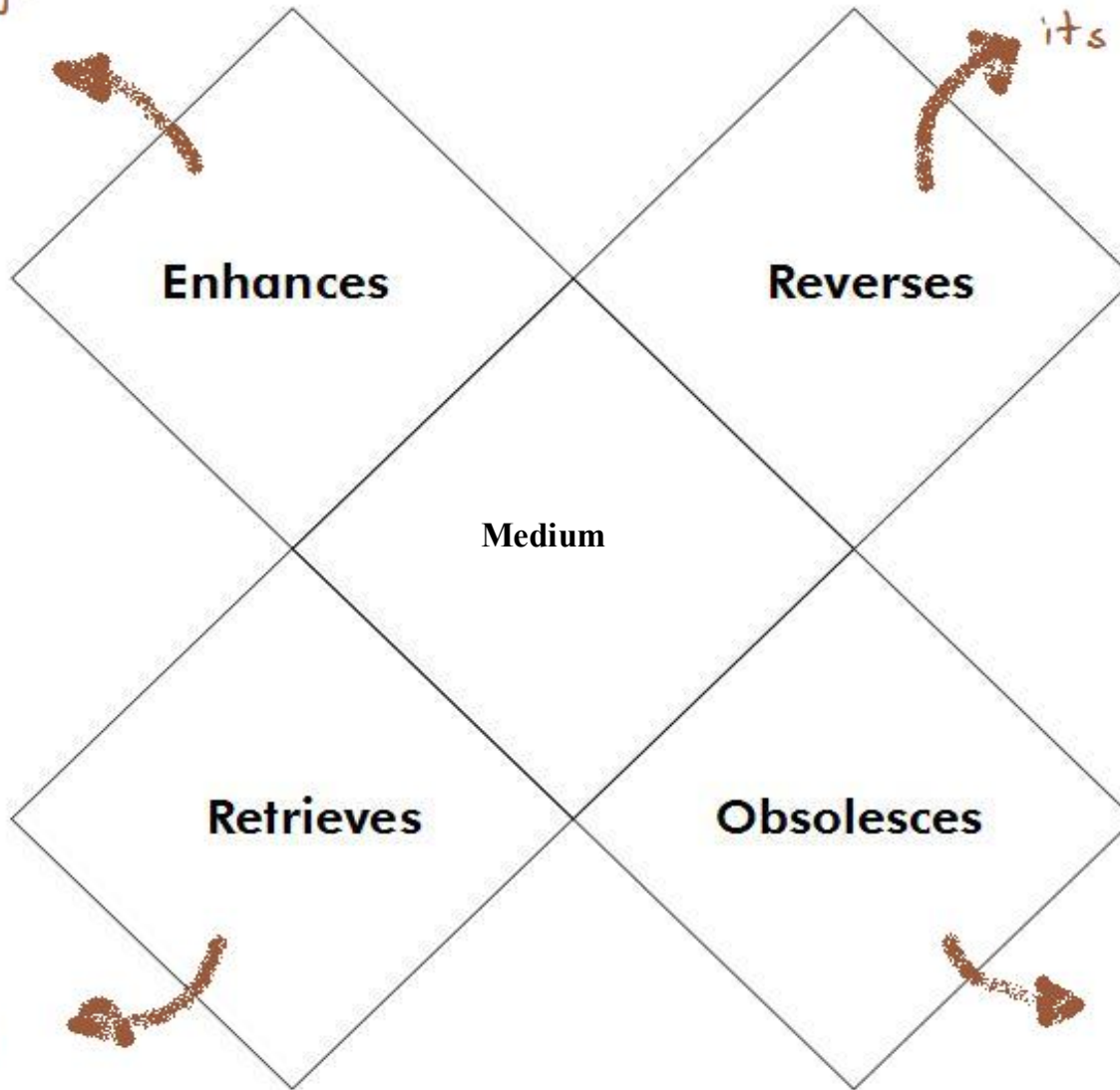
# McLuhan Quotes:

*The medium is the message. 1958*

*It is the framework which changes with each new technology and not just the picture within the frame. 1955*

*There are many reasons why most people prefer to live in the age just behind them. It's safer. To live right on the shooting line, right on the frontier of change, is terrifying. 1970*

What does it  
amplify?



How does it 'flip'  
when pushed to  
its limits?

What  
does it  
make  
relevant  
again?

What does  
it make  
obsolete?

# Social Media and Participatory Cultures [Jenkins]

Social media bring about a **participatory culture** with the following attributes:

- **Low barriers** to artistic expression and engagement
- Strong support for creating and **sharing** one's creations
- Informal **mentorship**—what is known by the experienced is passed along to novices
- Members believe their **contributions matter**
- Members feel some degree of **social connection** and care what others think about their creations

*Participatory cultures call for a new form  
of social literacy [Jenkins]*

*Should McLuhan have referred to this more recent era as the “Social Era”?*

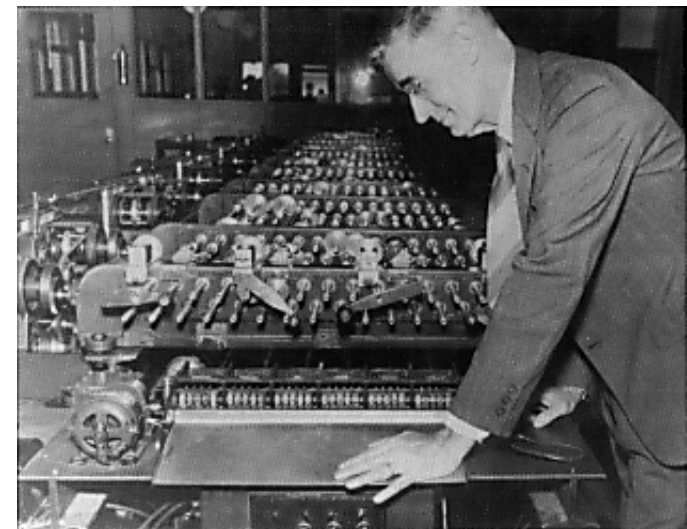
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# Vannevar Bush: “As we may think” (1945)

Identified the information storage and retrieval problem!

*“publication has been extended far beyond our present ability to make real use of the record”*



# The Dawn of the Internet

- Arpanet developing in the 1950's...
- First emails were sent in the 1970's
- Usenet newsgroups appeared in 1980's:  
*“worldwide distributed internet discussion system”*
- Instant messaging appeared by the end of the 1980's (IRC, ICQ...)



# Introduction of the WWW

- Tim Berners Lee invented the **web** in 1989 (proposal)
- He designed the web as a place where people could interact: *“a collaborative medium, a place where we all meet and read and write”*
- **Mosaic** browser in 1993

# Emergence of the Social Web

- At first, authoring required HTML, access to a server and technical knowledge
- Chat rooms and discussion rooms existed before the web, but overall, the web was a place of static web pages that users read
- Blogging started in 1997 (Blogger in 1999) – no need to know HTML and people could interact (comment, follow others → creating a social network)

# Social media and networking sites

- Six Degrees – 1997, people created profiles and listed their friends (grew to one million members)
- Friendster launched in 2002, followed by LinkedIn and MySpace (most well known) in 2003
- Facebook launched in 2004 (11 years ago!)
- 2004: Flickr (photo sharing), Digg (social bookmarking site); 2005: Youtube (videos); 2006: Twitter (microblogging)

# What's happened here?

- User generated content more common than any type of content by 2007 (“You” as Time Life person of the year in 2007)
- The machine is us/ing us:  
<http://www.youtube.com/watch?v=6gmP4nk0EOE>
- Social media sites dominate top ten websites per year (see <http://www.alex.com/topsites> )

# Social Networking Features?

- Authoring and sharing content (text, photos, videos, etc.)
- Following users (may not be reciprocal)
- Commenting
- Liking
- Voting
- Tagging links

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*Web as a platform*

*Architecture of participation*

*Software as a service*

*Rich user experience*

*Lightweight programming models*

**What is Web 2.0?**

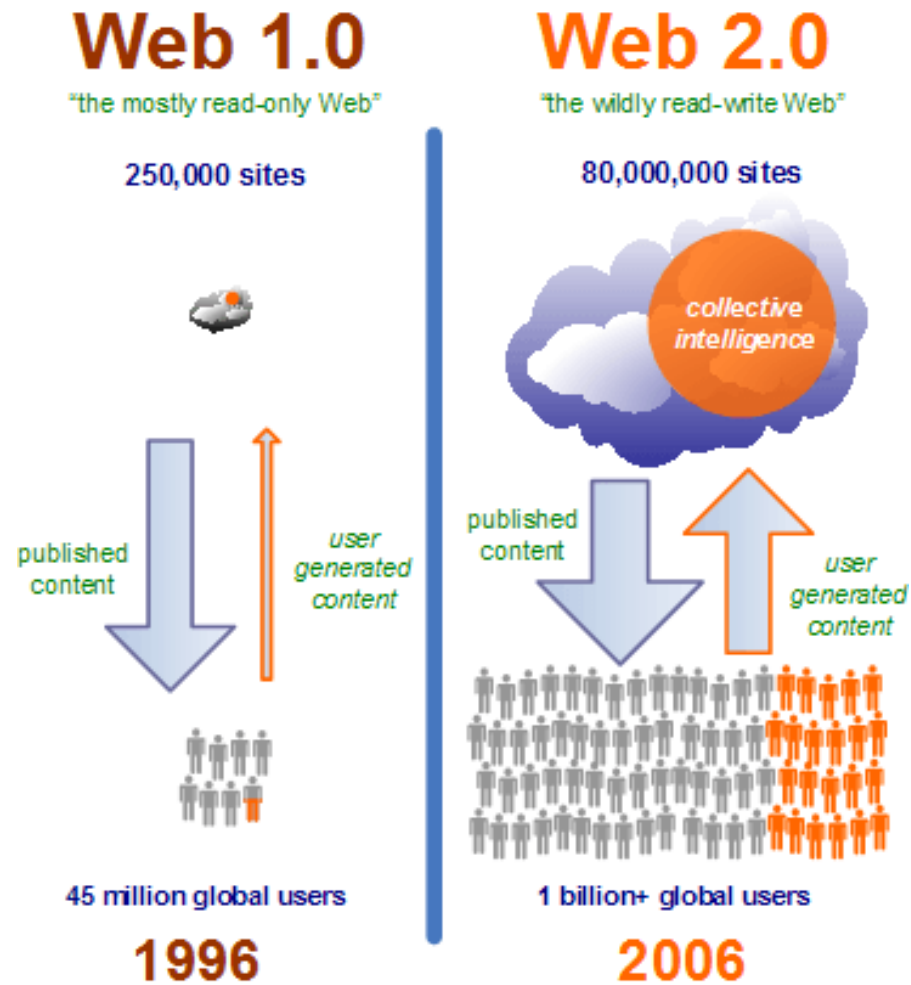
*Users as co-developers*

*Control over unique databases*

*Harnessing  
collective intelligence*

*Social media*

*Community and social networks*



From one of your blogs! O'Reilly describes how the value of the service is no longer in a particular server or in the user platform but *"in the space between the browser or search engine and destination content server"*.



# Social media is...

causing a **paradigm shift** in software engineering...

1. In **how** we collaboratively author software
2. In **who** is authoring software
3. In **what** kinds of software we develop

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# Social Media Landscape



# Understanding social media *task* affordances [Jenkins]

**Affiliations:** Memberships, formal and informal, in online communities centered around media, such as Friendster, Facebook, MySpace, message boards, or game clans

**Expressions:** Producing new creative forms, such as digital sampling, fan videos, fan fiction, zines, or mash-ups

**Collaborative problem solving:** Working in teams, formal and informal, to complete tasks and develop new knowledge, such as Wikipedia, alternative reality gaming

**Circulations:** Shaping the flow of media, such as podcasting or blogging or microblogging

# Contributed in one of the blogs:



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# Social production [Yochai Benkler]

- For 150 years during the industrial revolution, high costs to access broadcast media
- Radical change due to small low cost distributed small contributions at scale – now in the hands of the population at large, money not the motivator!
- Not just turning levers, but adding wisdom, creativity that can't be captured in a manual
- Software case is the most visible, because it was measurable
- Critical innovation of Google? **Outsourcing to determine what is relevant**

# Millennial Generation

- Used to and expect collaboration
- Adept at using social media for communication/coordination/learning
- Open, transparent, willing, expect to share
- Tightly coupled to their devices and content

How will the world change? How will tools change?



# Challenges?

- Information fragmentation, channel confusion
- Keeping up! (new tool opportunities?)
- Maintaining a state of flow?
- Vendor lock-in
- When does social become anti-social?
- Trust
- Literacy skills

# Social media literacy skills [Jenkins]

**Play:** The capacity to experiment with the surroundings as a form of problem solving

**Performance:** The ability to adopt alternative identities for the purpose of improvisation and discovery

**Simulation:** The ability to interpret and construct dynamic models of real-world processes

**Appropriation:** The ability to meaningfully sample and remix media content

**Multitasking:** The ability to scan the environment and shift focus onto salient details

**Distributed cognition:** The ability to interact meaningfully with tools that expand mental capacities

# Social media literacy skills cont.

**Collective intelligence:** The ability to pool knowledge and compare notes with others toward a common goal

**Judgment:** The ability to evaluate the reliability and credibility of different information sources

**Transmedia navigation:** The ability to follow the flow of stories and information across multiple modalities

**Networking:** The ability to search for, synthesize, and disseminate information

**Negotiation:** The ability to travel across diverse communities, discerning and respecting multiple perspectives, and grasping and following alternative norms

# Gamification and marginalization?

Less than 13% of Wikipedia content is authored by women, fewer than 9% of editors are women

Why does this matter?

- Less female oriented content
- Fewer opportunities to gain
- expertise, build portfolios, reputation



[“Define Gender Gap? Look up Wikipedia’s Contributor List. New York Times, January, 2011.](http://www.nytimes.com/2011/01/31/business/media/31link.html)

<http://www.nytimes.com/2011/01/31/business/media/31link.html>

<http://blog.20sb.net/2011/10/changing-the-ratio-on-wikipedia.html>

# Discussion...

- Revolution or evolution?



# From your blogs...

- Kickstarter as a great example where the crowd decides
- Reddit as a modern day coffee house
- Twitch playing pokemon (Democracy versus Anarchy could be voted on)

**Respect your parents.  
They graduated school  
without Google or  
Wikipedia.**

# From your blogs...

- “Tools should assist not dictate because it is the work of the people which generates the content and value.”
- Harnessing collective intelligence similar to the notion of “Dynamos”
- Need for P2P or privacy focused social networks, e.g., Omlet(<http://news.stanford.edu/news/2014/march/privacy-economy-app-031014.html>)
- “the ultimate tool would be one which could facilitate a goal AS WELL AS generate its own self-study and improvement.”



# From your blogs...

“I feel that O’Reilly fails to mention the importance of social media in his article. A web 2.0 application I believe allows users to interact and collaborate with each other in a social media dialogue as *creators of user generated content in a virtual community* (in contrast of web sites where people are limited to the passive viewing of content).”

Not mentioned: YouTube, Kickstarter, WordPress, Twitter, Facebook, and Craigslist. (why?)

# From your blogs...

“Ultimately, the lesson that we have learned in the last decade has been that the **internet is too complex for a top down approach**. So far the systems that have seen the most success were the ones that successfully extrapolated the behavior of individual users into larger trends, and made themselves essential to the larger ecosystem of the internet.”

# From your blogs...

“When we think of the **human brain**, we tend to conceptualize it as a discrete unit. Nobody finds it comfortable to take a utilitarian perspective of their own brain, as a system with parts that might fail, changing it’s functionality. The power of this system comes from it’s **connectivity**, millions of neurons branching out and making links to other neurons, creating new pathways. **The internet can be understood in similar terms**: a gigantic cognitive network where every person connected to it acts as a neuron, and like a brain, the more fully connected it gets, the more powerful it becomes.”

# Blog comments on Wikipedia video

“This video is published 7 years ago. Current size of wiki has been hundreds of times as wiki at that time, and the requirements and environments of internet has become much more complicated than that time. Therefore, **I don't think the chaotic model work anymore** for Wiki. Recently, I read from an online article about wiki that it has been a medium-large size company and hire staffs instead of only relying on volunteers now. I think we should have some extend readings about wiki to avoid the wrong thought that old chaotic model still work well for Web 2.0”

# From your blogs... about Wikipedia

Wales: “I expected to find something like an 80-20 rule...”

“But it’s actually much, much tighter than that: it turns out over 50% of all the edits are done by just .7% of the users ... 524 people. ... And in fact the most active 2%, which is 1400 people, have done 73.4% of all the edits.”

# The darker side of Wikipedia

“Recently it was announced that Wikipedia had blocked 381 accounts for “black-hat” editing and deleted the 210 articles that were created. [1] The accounts engaged in “undisclosed paid advocacy – the practice of accepting or charging money to promote external interests on Wikipedia without revealing their affiliation, in violation with Wikimedia’s Terms of Use.”

# Will Wikipedia (and the web) scale? Trust?

“In the grand scheme of things Wikipedia is a fairly small fish in the sea of the web and although they have managed to keep their body free of pollution it is not reasonable to expect that of the rest of the web.”

“People are often only willing to open up if their identity is hidden. This makes it hard to join our intellects into a cohesive form; without our identity our intelligence loses context and value.”

See video on “online shaming”

<https://cscwuvic2015.wordpress.com/2015/09/22/week-3-techniques-part-2/comments/>

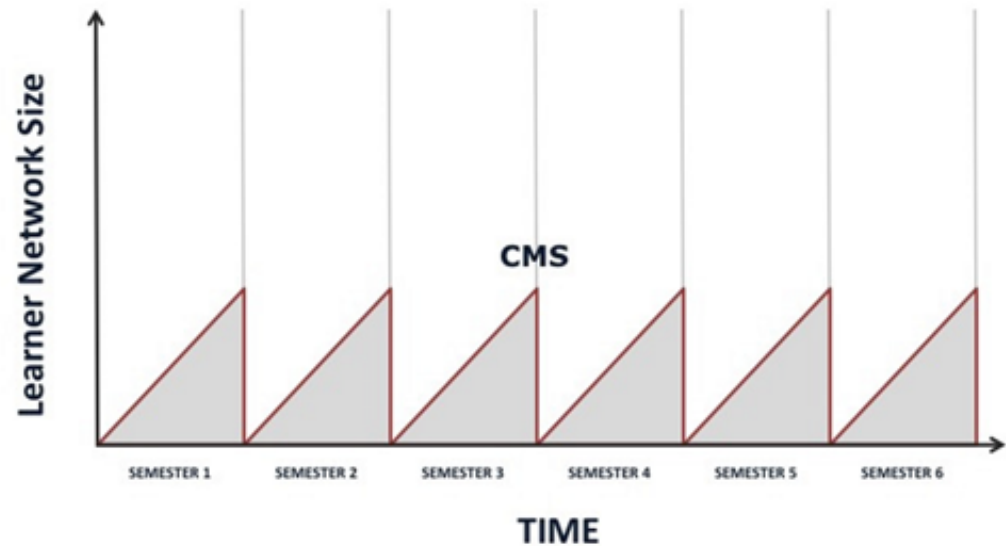
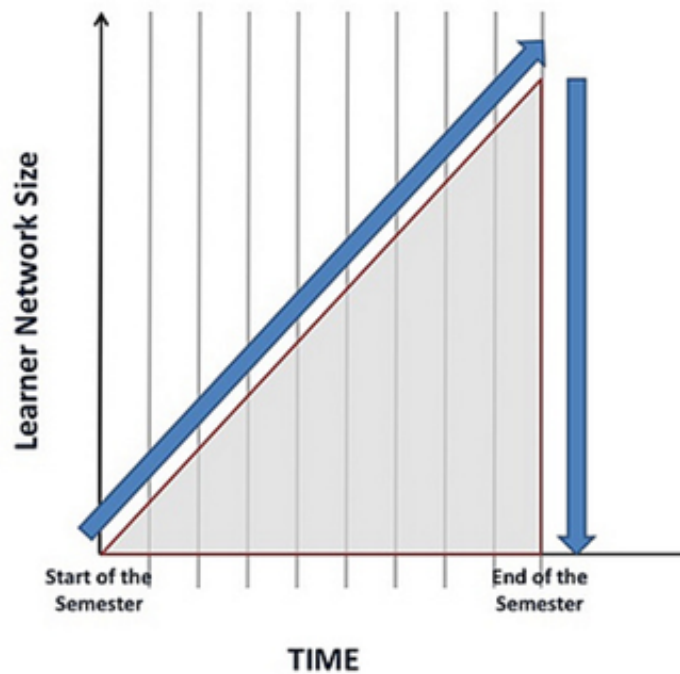
# From your blogs, on educational software...

“They get some things right, for example using the **web as a platform** as opposed to building desktop applications. However, these systems **do not support the long tail of users** into the environments as they are often structured based on courses and enrolled participants.”

“**Courses typically end** and the associated collaborative environment becomes unavailable to students thereby disrupting the continuity and flow of the learning process (Mott, 2010).”



# Learning archive...



<https://cscwuvic2015.wordpress.com/2015/09/21/web-2-0-principles-and-educational-enterprise-software/>

# On education cont...

“There are calls for universities to be a stakeholders in leading innovation in higher education (Hill, 2015). Could universities not be collaborating more, taking advantage of network effects, to create richer experiences for students?”

# More comments on education..

“The concern from professors being that they were causing students to be lazy and un-studious since they were places that people of all social classes went to hangout, talk, network, teach, etc. Students often spent more time at the coffee house than they did studying.

If you ask me “[Penny universities](#)“, as they were also known, were pretty dang cool from my perspective. I really like the idea of a [Commonplace Book](#).”

# From your blogs... on disabilities

“Unquestionably, people with disabilities are in the long tail of society, and have many time-sucking challenges. But many of them are powerfully claiming the web. (Check out [Emily Ladau](#) or [Smart Ass Cripple](#).) And because many CSCW-related disciplines, such as Collaborative Visualization (CV), are still in their relative infancy, it is my hope that people with disabilities will have an increasing role in their development.”

# Who owns our (big) data?

- Producer, consumer, hoster?
- Will laws help?

One Blogger Response to this:

“I would almost go as far to say once the information is online it is no longer owned by anyone.”

Sure we see open source, but “big data” puts it into the hands of those with power!

# Comment about power

“In this week’s readings and videos, I noticed a common theme in play: power. Every speaker and author, whether they were direct or indirect about it, spoke of power: namely, the power shift in recent years and how, on the web, power is supposedly held by the many and NOT the few! “



Torance, CA  
Change location

Any time  
Latest  
Past 24 hours  
Past 3 days  
Past week  
Past month  
Past year  
Custom range...

All results  
Related searches  
More search tools

search engines

About 105,000 results (0.25 seconds)

Search

Advanced search

SafeSearch Off

**Dogpile Web Search**  
All the best search engines piled into one. All the best search engines piled into one. Web  
Images - Video - News - Y! Web Pages - Write Pages ...  
Write Pages - Preference Window Pages - Dogpile: About Dogpile  
www.dogpile.com/ - Cached - Similar

**Bing**  
Bing is a search engine that finds and organizes the answers you need so you can make  
faster, more informed decisions.  
www.bing.com/ - Cached - Similar

**Comprehensive List of Search Engines - The Search Engine List**  
May 21, 2010 ... The Search Engine List is the web's most comprehensive list of major and  
minor search engines complete with links and abstracts describing  
www.thesearchengines.com/ - Cached - Similar

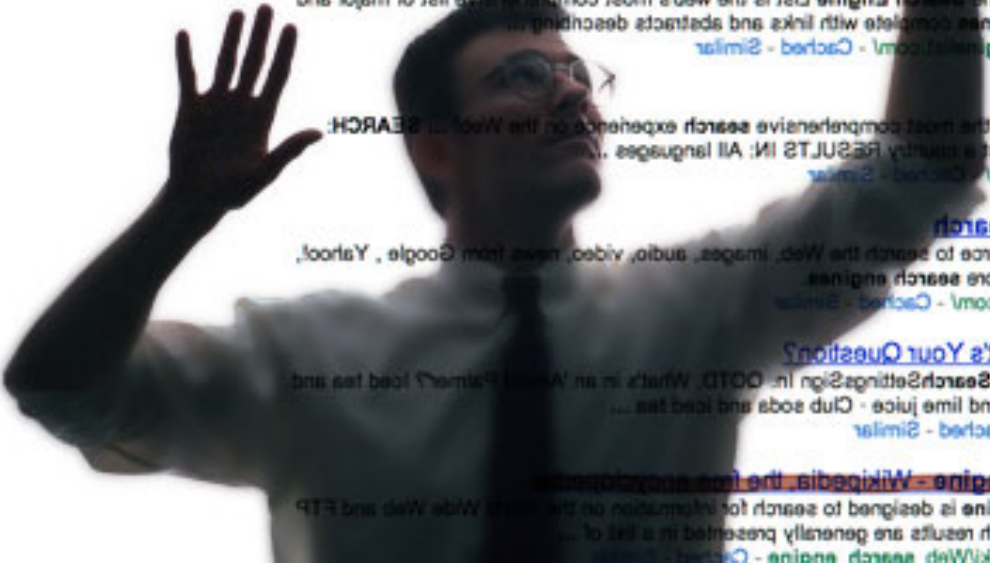
**AltaVista**  
AltaVista provides the most comprehensive search experience on the Web. SEARCH:  
Worldwide or Select a country RESULTS IN: All languages ...  
www.altavista.com/ - Cached - Similar

**Metacrawler Search**  
Offers a single source to search the Web: images, audio, video, news from Google, Yahoo!,  
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**Ask.com - What's Your Question?**  
Themed Advanced Search Settings In: QOTD: What's in an Apple? Painters' food tea and  
grenadine - Soda and lime juice - Club soda and ice tea ...  
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**Web search engine - Wikipedia, the free encyclopedia**  
A web search engine is designed to search for information on the World Wide Web and FTP  
servers. The search results are generally presented in a list of ...  
en.wikipedia.org/wiki/Web\_search\_engine - Cached - Similar

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# And even more cool comments from you!

“The word Web 2.0 has been used everywhere with few knowing what it actually means.”

“It is also cool to note that this whole “Web 2.0” thing was a major contributor to the rise of what I’m doing right now... that’s blogging.”

“So blog on my friends... without the fear of a corporation trying to lay claim to whatever it is you’re blogging.”

“I found the best description for Web 2.0 as a new generation of internet that focused on sharing and collaborating with others online.”



# And check out...

Interesting article on one decision (by EPIC's Unreal Engine 4) to go open source:

<https://www.enterpriseirregulars.com/74980/digital-collaboration-goes-deeper-gets-lightweight-intelligent/>

The post about Open License Databases:

<https://cscwuvic2015.wordpress.com/2015/09/22/draft/>