

Whither the Web: Web 2.0 and the Changing World of Web Surveys

“What’s the buzz? Tell me what’s a-happening”

(Jesus Christ Superstar)

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Overview of Presentation

- What is Web 2.0 ... and why should we care?
- Two flavors of Web 2.0
- Examples of Web 2.0 applications
- Implications for survey research

What is Web 2.0?

- Q: Is “Web 2.0” just marketing hype or is there traction and meaning to the term?
- A: Yes
- Definitions of Web 2.0 are scarce but examples of Web 2.0 abound
- “Web 2.0 is an attitude not a technology” (Ian Davis’ blog, 4/21/07)
- Whatever it means, the Web is changing. New tools and techniques are facilitating a different way of using the Internet
- Whether it is evolutionary or revolutionary is the debate

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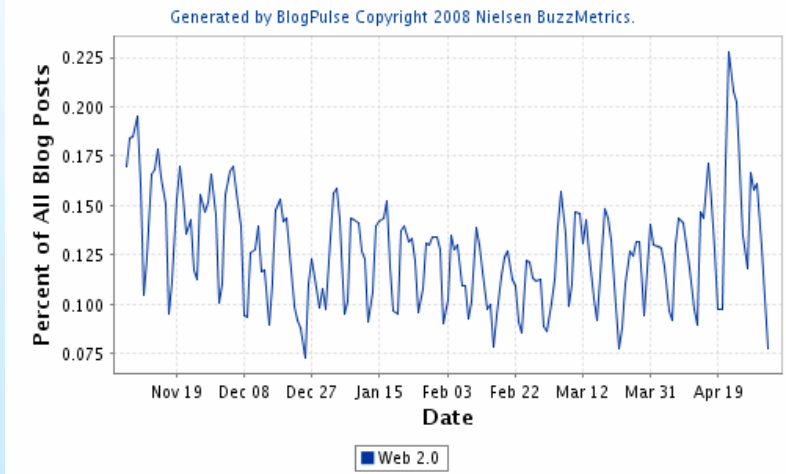
The Web 2.0 Cloud



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References to “Web 2.0” In Blogs Over the Last Six Months

Trend Results



Source: search on <http://www.blogpulse.com/trend>

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What is Web 2.0?

- Some examples from Tim O'Reilly, who popularized the term in 2004:

Web 1.0

Ofoto

Britannica online

Personal websites

Publishing

Webmaster

Directories (taxonomy)

→

→

→

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→

→

Web 2.0

Flickr

Wikipedia

Blogging

Participation

Everyone

Tagging (folksonomy)

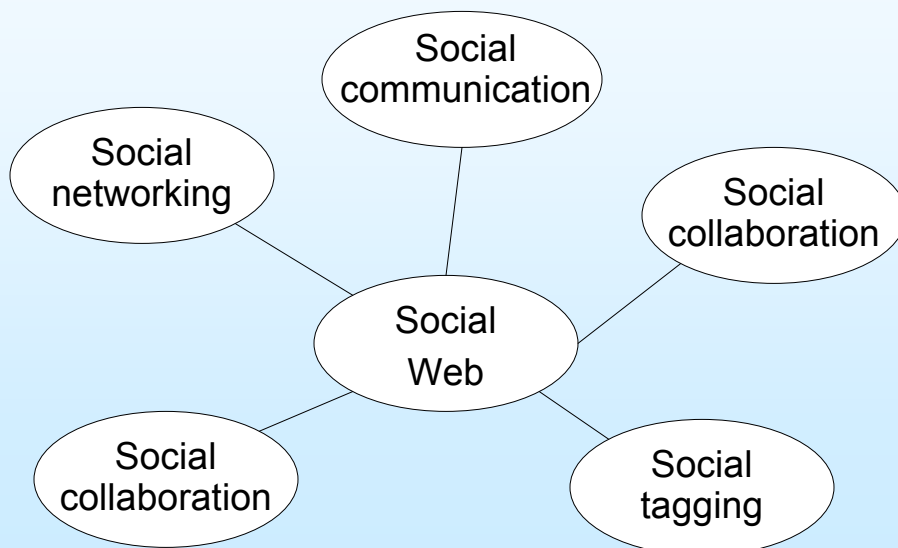
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Two Flavors of Web 2.0

- Web 2.0.s:
 - Social, collaborative, participatory Web
 - Massive co-creation
 - Democratization of the Web
 - New tools and technologies to support social interaction through the Web
- Web 2.0.i:
 - Interactions Web
 - New tools and technologies to enhance the interaction between user and Web server

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Varieties of the Social Web



Source: Müller & Meuthrath, GOR 2008

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Web 2.0.s: Social Web Examples

- Social communication
 - E.g., Skype, blogs
- Social collaboration
 - Consumer-generated media (CGM), user-generated content (UGC)
 - E.g., YouTube.com, Wikipedia.com, Digg.com
- Social tagging or folksonomies
 - E.g., StumbleUpon.com, 43Things.com, Xanga.com
- Social navigation
 - Tag clouds
- Social networking
 - E.g., MySpace.com, FaceBook.com, LinkedIn.com
- Multiple types
 - Mashups, e.g., Plazes.com
 - Virtual worlds, e.g., SecondLife.com
- Some examples follow...

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Social Tagging or Folksonomies: 43Things.com

The screenshot shows the 43Things.com website interface. At the top, there is a navigation bar with "Home", "Zetocist", "Log In", and a search box. The main heading is "43 Things". Below this, a section titled "What do you want to do with your life?" features a search input field and a "I want to do this" button. A large block of text lists various user-generated goals, such as "figure out what I want to do with my life", "maintain a healthy weight", "get in shape", "worry less", "live life fearlessly", "see pink floyd live", "meet the queen", "live in ireland", "return to italy", "be nicer to people", "learn the butterfly stroke", "admission wants to find 100 geocaches", "be independent", "go on more dates", "jerry211 wants to quit freind", "find my bliss, then follow it", "has anyone seen my bliss?", "tell a taxi driver to 'follow that car!", "learn how to prepare 10 excellent meals", "stop eating my emotions", "watch Grey's Anatomy", "pass my divina test", "finish collonia", "every picture in my suit's 200", "sistema book", "backpack through south america", "get married", "support misset", "financially", "watch all movies on AFI's 100 Best movies list", "shydivo again", "Scott wants to visit my relatives in New York", "smile at strangers", "walk a labyrinth", "keep my room clean", "buy a new car", "eat less", "learn english well", "become a professional poker player", "have financial freedom", "graduate high school", "practice yoga daily", "okjay wants to read everything jane austen wrote", "Dance in the rain", "Tell my ex 'I'm sorry'", "be healthy", "meet dane cook", "pass all my exams", "stop hating my fingernails", "finish my dissertation", "Read 100 classic novels", "volunteer in Africa", "do a backpack", "Josh Petersen wants to create a 'Junko' group", "Be Focused and Determined And Make Things happen", "save lives", "live simply", "Use the computer less", "Make my website better than completely lame", "Be an extra in a movie", "be healthy, physically, mentally, and emotionally", "be in love (and be loved in return) every day for the rest of my life", "Get a Nintendo DS", "become a film director", "shake Howard Dean's hand", "DavidF wants to Got my Brazilian Jiu-Jitsu blue belt", "relax", "stop procrastinating", "follow my dreams", "learn guitar", "learn".

On the right side, there is a section titled "City Hall" with a red ribbon graphic and the text "Get help, help others, & be a good citizen in our new City Hall." Below this is a "Today's Tags" section with a list of tags and their counts: fun (7949), travel (7349), life (7047), health (4433), book (3952), musical (4420), music (4420), family (3870), art (3237), musicand soul (2933), exercise (2902), food (2910), education (2769), and reading (2761). A "See more" link is provided at the bottom of the tags list.

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User-Generated Content: Digg.com

The screenshot shows the Digg.com homepage. At the top, there is a navigation bar with 'digg' logo, 'News', 'Videos', and 'Podcasts' tabs. Below this is a secondary navigation bar with categories like 'All Topics', 'Technology', 'Science', 'World & Business', 'Sports', 'Entertainment', and 'Gaming'. A search bar is located on the right. The main content area features a featured article titled 'Small Business Solutions' with a sub-headline 'Find Out How Business Owners Use BlackBerry® To Improve Productivity'. Below this, there are several news items, each with a 'digg it' button and a 'diggs' count. On the right side, there is a 'What's Digg?' section and a 'Top 10 in All Topics' list.

digg News Videos Podcasts[™] Join Digg Login Search the News

All Topics Technology Science World & Business Sports Entertainment Gaming Submit a New Story

Small Business Solutions

Find Out How Business Owners Use BlackBerry® To Improve Productivity
www.BlackBerry.com/yourbusiness

Spreading the Word... Digg user 'tombatsby' just invited 'tombatsby' to join Digg! Login to invite your own friends!

All News Popular Stories Upcoming Stories (9,719)

Newly Popular Top in 24 Hours 7 Days 30 Days 365 Days Digg Home

163 diggs
Anatomy of a Successful Viral Video
submitted, made popular 6 minutes ago (www.younggogetter.com)
there was a video post (Trust Me Im A Professional) that hit the front page of Digg.com today, where in a video supposedly shot in 1984 a motivation speaker talks a woman into doing a trust fall where she smacks her head on the floor. -- It is called a viral video. Made specifically to fool you into talking about it. More...
17 comments | Block | Email | Topic: Tech Industry News | Bury |

230 diggs
Firefox Extension TubeStop Stops YouTube Ads
submitted, made popular 16 minutes ago (www.christfrike.com)
Since YouTube is only serving ads through the player on their main site, and not on the embeddable/syndicated player, and TubeStop works by replacing YouTube's native player with the embeddable version, you won't see any ads when you're using TubeStop. More...
34 comments | Block | Email | Topic: Software | Bury |

221 diggs
NASA's 2 Voyager Spacecraft Celebrate Over Thirty Years in Space
submitted, made popular 26 minutes ago (www.planetary.org)
NASA's 2 venerable Voyager spacecraft are celebrating 3 decades of flight as they head toward interstellar space. Their ongoing odysseys mark an unprecedented and historic accomplishment: Voyager 2 launched on Aug. 20, 1977, and Voyager 1 launched on Sept.

What's Digg?
Digg is all about user powered content. Everything is submitted and voted on by the Digg community. Share, discover, bookmark, and promote stuff that's important to you!
Join Login Learn More...

Top 10 in All Topics Get Widget

- 3760 Good Answer... Perhaps TOO Good
- 1873 CPU Desk - Made From Several Hundred Old CPUs [Pics]
- 1484 Undercover Cops Tried to Incite Violence at Protest Rally
- 1453 Fox ATTACKS! Iran - Fearmongering 2004 vs. 2007
- 1135 Removing Backgrounds Quickly in Photoshop

Social Networking With Mashups: Plazes.com

The screenshot shows the Plazes.com website. At the top, there is a navigation bar with 'PLAZES' logo, 'Right Place, Right People, Right Time', 'Groups', and 'Tools' tabs. A search bar is located on the right. The main content area features a large map of Europe with a location marker for 'Endingen, chillsn'. To the right of the map, there is a list of features and a 'Join Now' button.

PLAZES Right Place, Right People, Right Time Groups Tools search for... Search

Log In | Join

Tune into what your friends are up to. See what's going on at your favorite Plazes.

Share where you are right now and what you are doing there

Let others know where you will be later today, tomorrow or next week

Stay on top of your friends' activities and plans

Update your activities and plans on-the-go with Plazes Text Messaging

Join a Plazes Group to stay connected with your favorite people and Plazes - or, better yet, create one of your own

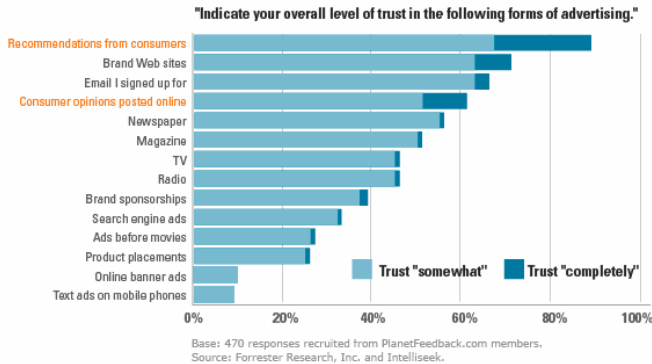
Join Now

Plazes: Users:

Consumer Generated Media

Why is CGM Important?

First, consumers place far more trust in their fellow consumers than they do in traditional marketers and advertisers, according to research. For any marketer, advertiser or business professional trying to be heard or break through the clutter, understanding and managing this high-impact CGM is critical for marketplace understanding and success.



Source: NielsenBuzzMetrics.com

See PlanetFeedback.com

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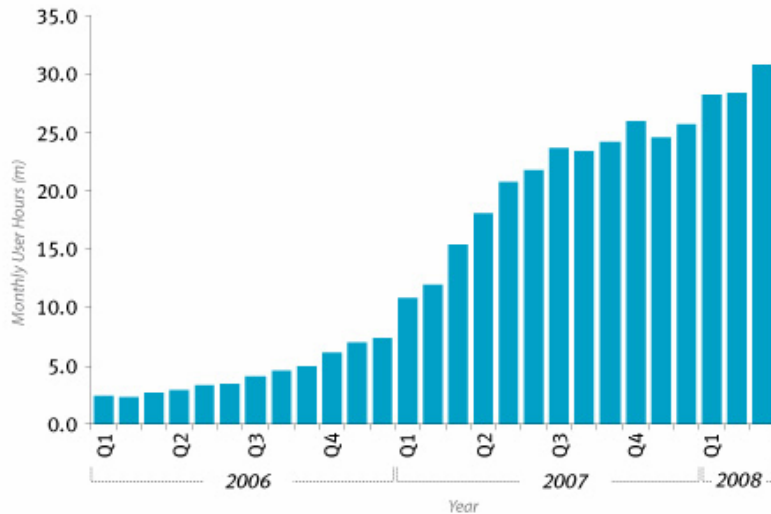
Virtual Worlds, Virtual Research

- Get a life ... a Second Life, that is
- Second Life is one of the fastest growing virtual worlds
 - Over 12 million registered users
 - See next slide for growth in monthly user hours
- Already widely used by traditional and online retailers for marketing, branding, etc.
- Several market researchers have a presence in Second Life

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Second Life Monthly User Hours

Monthly User Hours



Second Life

Second Life
Your World. Your Imagination.

Resident Login | Join

WHAT IS SECOND LIFE? SHOWCASE BUSINESS & EDUCATION DEVELOPERS COMMUNITY BLOG SUPPORT

JOIN NOW
MEMBERSHIP IS FREE

SECOND LIFE IS A 3D ONLINE DIGITAL WORLD IMAGINED, CREATED, & OWNED BY ITS RESIDENTS.

- BUY & SELL LINDEN DOLLARS
- OWN VIRTUAL LAND
- REFER FRIENDS

VIEW INTERACTIVE MAP

UNDER 18? CHECK OUT TEEN LIFE

Last Updated: Friday, May 2, 2008
Reflects data through midnight, May 1.

Population

Residents Logged-In During Last 7 Days	469,036
Residents Logged-In During Last 14 Days	601,246
Residents Logged-In During Last 30 Days	812,193
Residents Logged-In During Last 60 Days	1,237,968
Total Residents ¹	13,474,509

Headlines [read more news...](#)

- Pfizer News Wire via Evergreen Investments Manover Inc. Launches Island in Second Life...
- The Guardian Best Best Best
- Financial Times Talent hunt in a virtual world
- The perquain blog in cyberspace systems

YOU MIGHT BE A LINDEN!

Work at Linden Lab
Where else can you help create a new world and have the time of your life doing it? Just visit our [jobs page](#) and follow the directions from there.

Second Life Videos
Check out Resident-created Second Life videos at our [media page](#).

SECONDOpinion NEWSLETTER
[Read the Current Newsletter](#)

Second Life Statistics

SLB SLBuzz.com SL Stats

[home](#) | [stats](#) | [analytics](#) | [login](#)


Browse Regions

The Second Life world is growing rapidly. New regions, also known as simulators, are being added all the time. You can browse the regions. If you're an SL Stats user, you can also see how much time you've spent in each region.

[Browse Simulators](#)

Top 10 Explorers (30 days)

Browse Regions




Second Life Statistics

SL Stats allows you to see how much time you spend in Second Life using a small attachment that your avatar can wear. SL Stats is completely passive, and, much like the rest of SLBuzz, neatly integrated into Second Life.

How to get started

If you want to partake in this venture, go to the [SLBuzz Store](#) and grab one of the watches (they're FREE!). Then simply wear it. It will analyze your stats and create a customized profile for you. The watch is modifiable, too, so you can even put the script into your own creations.







Browse Residents

If you're an SL Stats user, you can also see who you're running into while you spend time in Second Life.

[Browse Users](#)


Top 10 Online Users (30 days)

	Flower Ducatillon Spent 669 hours online
	Schakal Laszlo Spent 656 hours online
	Fitthin Exodus Spent 655 hours online
	Sugar Sellers Spent 644 hours online

Miscellaneous Statistics

Simulator Growth as of May 3, 2008
Number of Regions over the last eight weeks

We use several techniques and



Market Research in Second Life: Repères

repères passion for research

SL LIFE

REPÈRES SecondLife

[CONTACT US](#)

Visit Repères Second Life at the following location:
[REPÈRES SecondLife](#)





click here to download the main research findings of our last exploratory study:
*Second Life second week life (seconda "08")

click here to download the main research findings:
*Purchase Habits (08)

REPÈRES Second Life is the 1st market research institute on Second life. REPÈRES Second Life is meant to accompany companies in the development of their products and offers on Second Life thanks to:

- The creation of a community: a panel of 7000 avatars that are representative of the overall population of Second Life in terms of nationality, gender, age... They are called upon to address issues faced by brands seeking to establish themselves or develop their offer on Second Life.
- A watch on this new universe in full expansion: behaviours, innovations, new codes being established.
- A space for tests and co-creation: the place for novelties to be tried and evaluated.





visit Repères First Life at:
<http://www.repères.net>

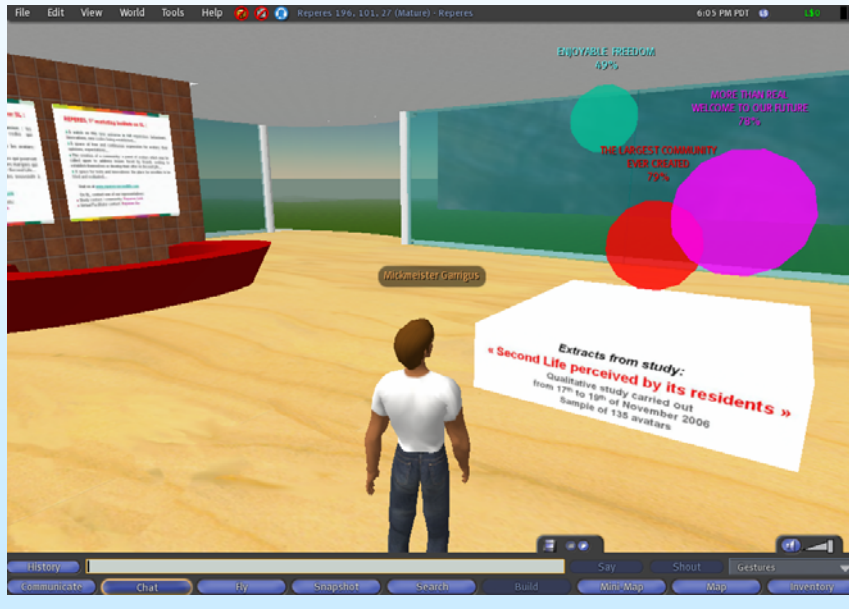
François Aïme's blog
(CEO of Repères)

NEWS!
CONTEST WINNERS
JARDINS DES HALLES
ASSOCIATION ACCOMPLIR
POURQUOÛCOURS?
100000€

ÉPIQUE DU FUTUR
CONTEST WINNER

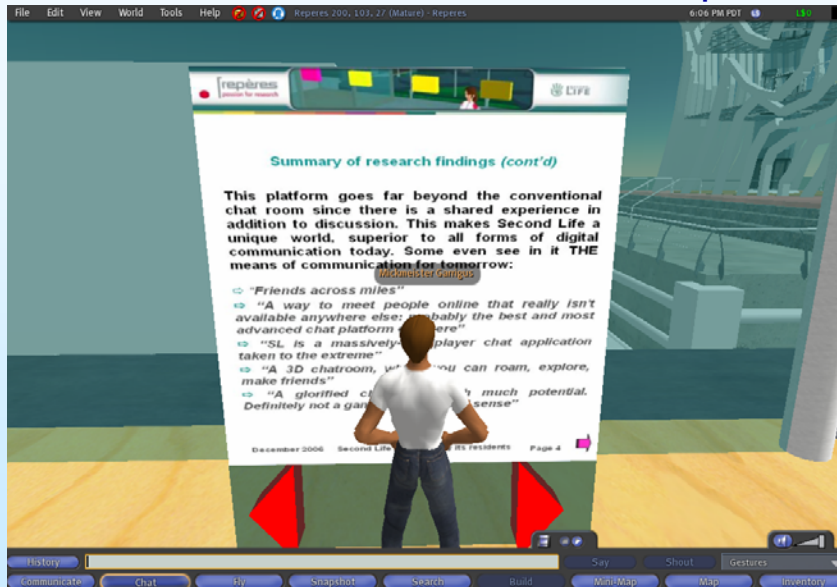


Market Research in Second Life: Repères



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Market Research in Second Life: Repères



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Market Research in Second Life: Repères



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Measuring Second Life: ComScore

The screenshot shows a ComScore blog post. The header includes the ComScore logo, the tagline 'Measuring the Digital World', and links for 'CLIENT LOGIN', 'SEARCH', and 'PRIVACY POLICY'. The main content area features the title 'Spotted on Second Life ...' by Gian Fulgoni. Below the title is a photograph of a virtual character wearing a white t-shirt with the ComScore logo and tagline. The post includes a search bar, a 'RECENT POSTS' section with several article titles, and a 'Tags: Second Life' section. At the bottom, it says 'Posted by Gian Fulgoni on July 13, 2007 7:57 AM' and 'Permalink | digg this | add to del.icio.us'.

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Research Companies Using Web 2.0.s

- Some examples:
 - www.Brainjuicer.com
 - www.Dialego.de's Mind Voyager and ConsumerNeeds Tagging qualitative tools
 - www.VirtualSurveys.com
 - Repères has a presence on Second Life (see <http://reperes-secondlife.com/index.asp>)
- Many other examples already out there

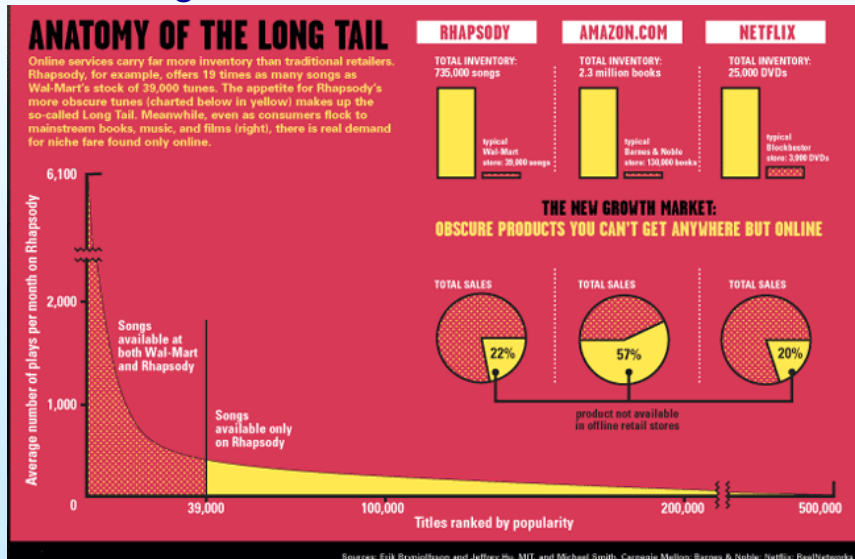
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Web 2.0.s: Implications for Survey Research

- Time magazine: "The New Web ... is a tool for bringing together the small contributions of millions of people and making them matter."
- Millions of people are posting content on the Web
 - This is all in digital format (easily searched, sorted, analyzed, etc.)
 - The golden age for content analysis software
- Rare events, groups, behaviors more accessible (the long tail)
- Web 2.0.s is creating communities that may be of research interest in their own right
- Social networks can be readily studied dynamically across time and space
- People are influencing others online
 - Viral marketing, word of mouth marketing (WOMMA), etc.
 - Can study the spread of ideas
- But these may not represent the broader (Internet) population – typically the top of the pyramid

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The Long Tail



Source: Chris Anderson, article in *Wired*, October 2004 (now a book of the same name)

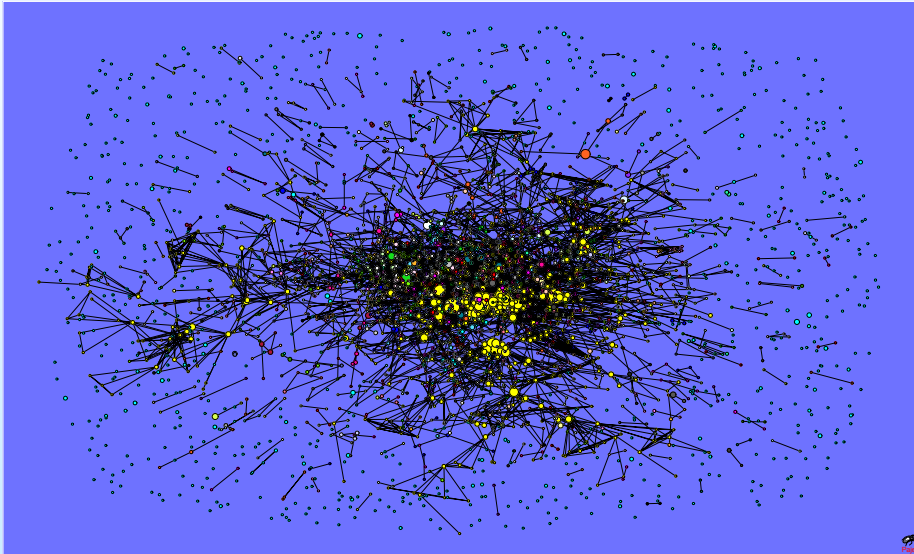
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The Long Tail

- Average Barnes and Noble inventory is 130,000 books, yet more than half of Amazon's book sales come from outside the top 130,000 titles
- Average Blockbuster carries <3,000 DVD, yet 1/5th of Netflix rentals are outside the top 3,000 titles
- Rhapsody streams more songs each month beyond its top 10,000 than it does its top 10,000

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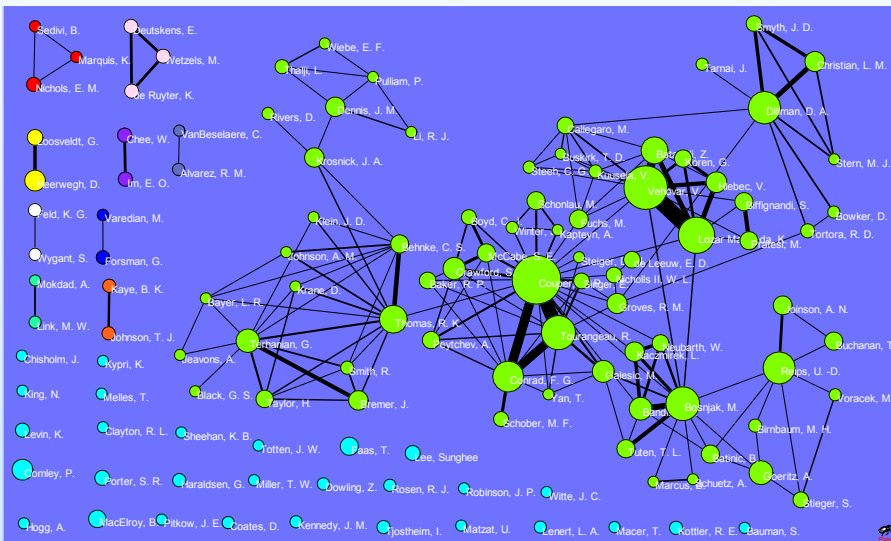
Social Network Analysis of WebSM Literature



All authors on WebSM.org; Source: Vasja Vehovar, ESRA plenary 2007

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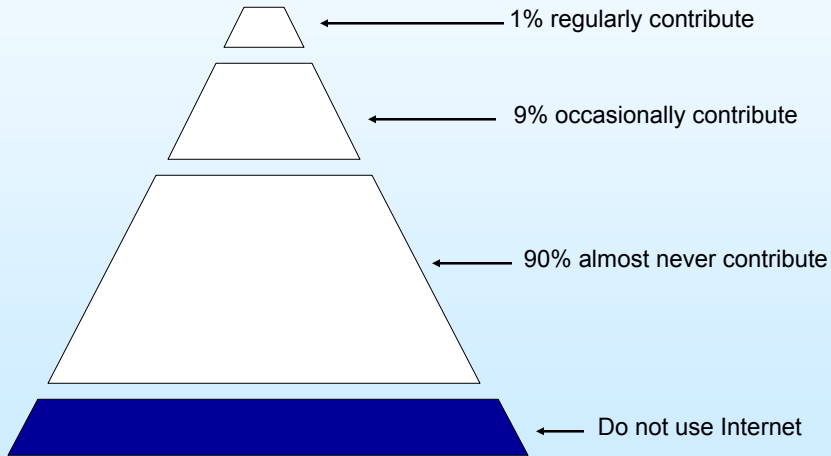
Social Network Analysis of WebSM Literature



Authors with 5+ citations on WebSM.org; Source: Vasja Vehovar, ESRA plenary 2007

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The Pyramid of Internet Users (Not to Scale)



Source: estimates reported in BBC News, May 14th, 2007

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Pew's Typology of ICT Users

	Group name	% of adult population	What you need to know about them
Elite Tech Users (31% of American adults)	Omnivores	8%	They have the most information gadgets and services, which they use voraciously to participate in cyberspace and express themselves online and do a range of Web 2.0 activities such as blogging or managing their own Web pages.
	Connectors	7%	Between featured-packed cell phones and frequent online use, they connect to people and manage digital content using ICTs – all with high levels of satisfaction about how ICTs let them work with community groups and pursue hobbies.
	Lackluster Veterans	8%	They are frequent users of the internet and less avid about cell phones. They are not thrilled with ICT-enabled connectivity.
	Productivity Enhancers	8%	They have strongly positive views about how technology lets them keep up with others, do their jobs, and learn new things.
Middle-of-the-road Tech Users (20%)	Mobile Centrics	10%	They fully embrace the functionality of their cell phones. They use the internet, but not often, and like how ICTs connect them to others.
	Connected But Hassled	10%	They have invested in a lot of technology, but they find the connectivity intrusive and information something of a burden.
Few Tech Assets (49%)	Inexperienced Experimenters	8%	They occasionally take advantage of interactivity, but if they had more experience, they might do more with ICTs.
	Light But Satisfied	15%	They have some technology, but it does not play a central role in their daily lives. They are satisfied with what ICTs do for them.
	Indifferents	11%	Despite having either cell phones or online access, these users use ICTs only intermittently and find connectivity annoying.
	Off the Network	15%	Those with neither cell phones nor internet connectivity tend to be older adults who are content with old media.

Source: J.B. Horrigan, A Typology of Information and Communication Technology Users (May 7, 2007), http://www.pewinternet.org/pdfs/PIP_ICT_Typology.pdf

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But this is not really survey research.

To look for implications of Web 2.0 for survey research we must turn to Web 2.0.i...

Web 2.0.i: The Interactions Web

- Set of tools to facilitate fluid interaction
- Based on AJAX: Asynchronous JavaScript and XML¹
 - Definition: Ajax is a web development technique for creating interactive web applications. The intent is to make web pages feel more responsive by exchanging small amounts of data with the server behind the scenes, so that the entire web page does not have to be reloaded each time the user requests a change. This is meant to increase the web page's interactivity, speed, and usability.
- Host of new programming and design tools (Ruby on Rails, Laszlo, etc.) extend interactivity beyond HTML

¹Extensible markup language

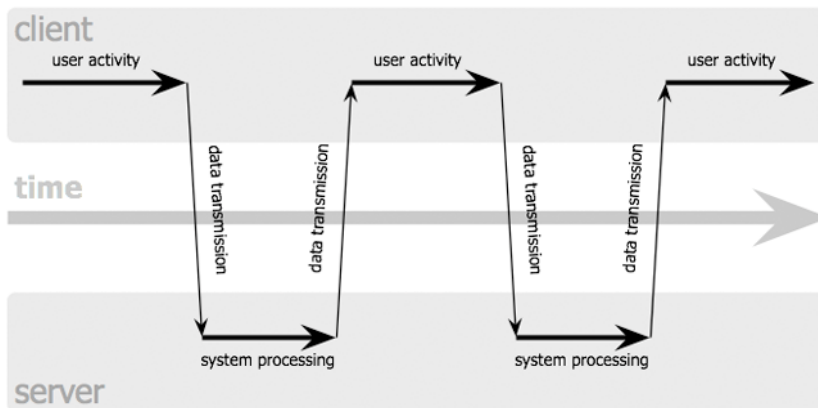
Web 1.0: The Old Web

- User completes a static form, then submits it to the Web server
- Web server processes the information, then sends the next page to the user
- User then refines request, or enters additional information, and resubmits
- Examples:
 - <http://www.google.com/>
 - <http://www.mapquest.com/>

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Before Ajax: The Old Web

classic web application model (synchronous)



Jesse James Garrett / adaptivepath.com

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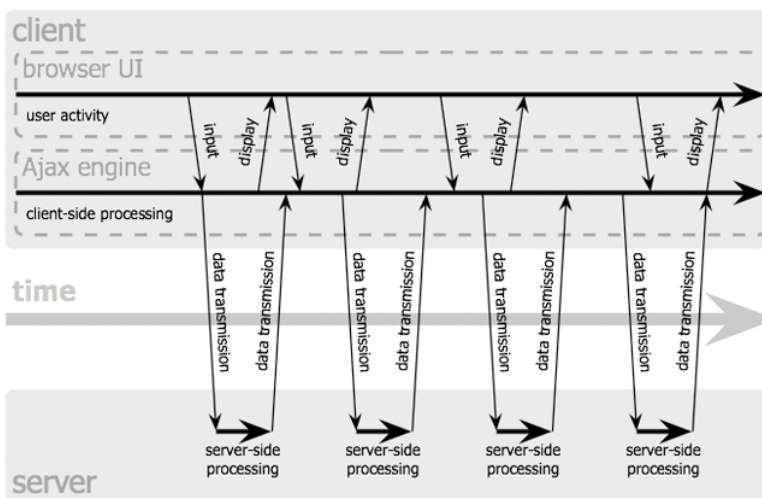
Web 2.0.i: The New Web

- While the user is entering information in the form, the browser is communicating in the background with the server
 - Preloading requested data
 - Narrowing information field
 - Dynamically updating form
- Smoother, more natural interaction, improved “flow”
- Examples:
 - www.google.com/webhp?complete=1&hl=en
 - www.map24.com

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After Ajax: The New Web

Ajax web application model (asynchronous)



Jesse James Garrett / adaptivepath.com

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Web 2.0.i and Survey Research

- Several early tests and demonstrations of Web 2.0.i to enhance online surveys, e.g.:
 - Use of dynamic maps for campus drinking survey (SSG) (Sinibaldi et al., 2006)
 - Virtual store shelves (Dialego.de; CommonKnowledge.com)
- Increasing use of more dynamic or interactive features in Web surveys, using Java, JavaScript or Flash, e.g.:
 - Visual analog scales and dynamic rating scales (e.g., Couper et al., 2006; Funke & Reips, 2007; Thomas & Couper, 2007)
 - Video Web studies (e.g., Fuchs and Funke, 2007)
 - Card sort and ranking tasks (e.g., Neubarth, 2006)
 - Dynamic lookup (e.g., Funke & Reips, 2007)
 - Navigation in grids (e.g., Galesic et al., 2007)
 - Social network studies (see papers by G. Koren et al., on websm.org)

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Web 2.0.i: Implications for Survey Research

- Web 2.0.i is adding a number of interesting interactive tools to the survey researcher's toolbox
- Potential to make surveys more interesting, efficient, and accurate
- But many of the benefits are yet to be demonstrated
 - Mixed results on some tools (slider bars, dynamic lookup)
 - Little or no research on others

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Final Comments on Web 2.0 and Survey Research

- On the one hand...
 - What's cool is not always what's useful
 - Avoid technology for technology's sake
 - Fundamental criteria by which we evaluate survey methods and techniques remain valid
 - New techniques must be tested and proven useful before widespread adoption
- On the other hand...
 - The nature of the Web is changing, along with expectations, experiences, behavior, etc.
 - We must be ready to adapt to the new medium
 - Many potential opportunities are waiting to be explored

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A Third Flavor: Web 2.0.m, The Mobile Web

- Web applications are becoming increasingly more mobile (see Mark Cameron's ASC paper)
- The Mobile Web has been around for several years in Europe (3G, NG), but only recently getting more attention in the U.S.
- The iPhone is the new poster child of the mobile Web
- With GPS-enabled and Internet-enabled mobile devices, a wide variety of human behaviors can be tracked and studied as they are occurring

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Some Citations

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- Sinibaldi, J., Crawford, S.D., Saltz, R., and Showen, S. (2006), "Using Interactive Web-Based Maps to Collect Geographical Data in a Student Survey." Paper presented at the annual meeting of the American Association for Public Opinion Research, Montreal, Canada, May.
- Thomas, R.K., and Couper, M.P. (2007), "A Comparison of Visual Analog and Graphic Rating Scales." Paper presented at the General Online Research Conference (GOR'07), Leipzig, March.

Additional information can be found at WebSM.org

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Thank you!

Mick 1.5



Harvard University
Program on Survey Research