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

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

What is Web 2.0?

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

<table>
<thead>
<tr>
<th>Web 1.0</th>
<th>Web 2.0</th>
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<tr>
<td>Ofoto</td>
<td>Flickr</td>
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<td>Britannica online</td>
<td>Wikipedia</td>
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<td>Personal websites</td>
<td>Blogging</td>
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<tr>
<td>Publishing</td>
<td>Participation</td>
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<tr>
<td>Webmaster</td>
<td>Everyone</td>
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<tr>
<td>Directories (taxonomy)</td>
<td>Tagging (folksonomy)</td>
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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

Varieties of the Social Web

Source: Müller & Meuthrath, GOR 2008
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…

Social Tagging or Folksonomies: 43Things.com
User-Generated Content: Digg.com

Social Networking With Mashups: Plazes.com
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.

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
Second Life Monthly User Hours

Monthly User Hours

Year

Second Life

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

Population
Residents Logged-In During Last 7 Days 469,954
Residents Logged-In During Last 14 Days 601,246
Residents Logged-In During Last 30 Days 812,153
Residents Logged-In During Last 60 Days 1,207,900
Total Residents 3 13,474,569
Second Life Statistics

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)

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, nearly integrated into Second Life.

How to get started

If you want to partake in this venture, go to the SL Buzz 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 notifies, too, so you can even get the script into your own creations.

Miscellaneous Statistics

We use several techniques and...

Brown Residents

Top 10 Online Hours (30 days)

Market Research in Second Life: Repéres

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Market Research in Second Life: Repéres

Summary of research findings (cont'd)

This platform goes far beyond the conventional chat rooms since there is a shared experience in addition to discussion. This makes Second Life a unique world, superior to all forms of digital communication today. Some even see in it THE means of communication for tomorrow.

- “Friends across miles”
- “A way to meet people online that really isn’t available anywhere else – probably the best and most advanced chat platform I have seen”
- “SL is a massively multiplayer chat application taken to the extreme”
- “A 3D environment of no habitation, no rules, no limits, no rules, no limits, no rules…”
- “I much potential and a good future”

Excerpts from study:
- “Second Life perceived by its residents”
Market Research in Second Life: Répères

Measuring Second Life: ComScore
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
  - Repéres has a presence on Second Life (see http://reperes-secondlife.com/index.asp)
- Many other examples already out there

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
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
Social Network Analysis of WebSM Literature

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

Social Network Analysis of WebSM Literature

Authors with 5+ citations on WebSM.org; Source: Vasja Vehovar, ESRA plenary 2007
The Pyramid of Internet Users (Not to Scale)

- 1% regularly contribute
- 9% occasionally contribute
- 90% almost never contribute
- Do not use Internet

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

Pew’s Typology of ICT Users

<table>
<thead>
<tr>
<th>Group name</th>
<th>% of adult population</th>
<th>What you need to know about them</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ommniusers</td>
<td>8%</td>
<td>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.</td>
</tr>
<tr>
<td>Connectors</td>
<td>7%</td>
<td>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.</td>
</tr>
<tr>
<td>Lackluster Veterans</td>
<td>9%</td>
<td>They are frequent users of the internet and less avid about cell phones. They are not thrilled with ICT-enabled connectivity.</td>
</tr>
<tr>
<td>Productivity Enhancers</td>
<td>8%</td>
<td>They have strongly positive views about how technology lets them keep up with others, do their jobs, and learn new things.</td>
</tr>
<tr>
<td>Mobile Centrics</td>
<td>10%</td>
<td>They fully embrace the functionality of their cell phones. They use the internet, but not often, and like how ICTs connect them to others.</td>
</tr>
<tr>
<td>Connected But Hassled</td>
<td>9%</td>
<td>They have invested a lot of technology, but they find the connectivity intrusive and information something of a burden.</td>
</tr>
<tr>
<td>Inexperienced Experimenters</td>
<td>8%</td>
<td>They occasionally take advantage of interactivity, but if they had more experience, they might do more with ICTs.</td>
</tr>
<tr>
<td>Light But Satisfied</td>
<td>15%</td>
<td>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.</td>
</tr>
<tr>
<td>Indiffentists</td>
<td>11%</td>
<td>Despite having either cell phones or online access, these users use ICTs only intermittently and find connectivity annoying.</td>
</tr>
<tr>
<td>Off the Network</td>
<td>15%</td>
<td>Those with neither cell phones nor internet connectivity tend to be older adults who are content with old media.</td>
</tr>
</tbody>
</table>

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 XML\(^1\)
  - 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

\(^1\)Extensible 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/

Before Ajax: The Old Web

[Diagram of classic web application model (synchronous)]

Jesse James Garrett / adaptivepath.com
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
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)

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
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

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
Some Citations


Additional information can be found at WebSM.org

Thank you!

Mick 1.5