3-20-2007

Vol. IX, Tab 41 - Ex. 8 - Email from Fiona Lee and EPCOT Study (Google Online Operations)

Fiona Lee
Google

Follow this and additional works at: http://digitalcommons.law.scu.edu/appendix

Part of the Computer Law Commons, Intellectual Property Commons, and the Internet Law Commons

Automated Citation
http://digitalcommons.law.scu.edu/appendix/56

This Email is brought to you for free and open access by the Research Projects and Empirical Data at Santa Clara Law Digital Commons. It has been accepted for inclusion in Rosetta Stone v. Google (Joint Appendix) by an authorized administrator of Santa Clara Law Digital Commons. For more information, please contact sculawlibrarian@gmail.com.
Hi Marissa:

Dan and I are scheduled to present at tomorrow's Consumer PT team but we only learned of the schedule change late yesterday. So I'm sending you a copy of the deck that we presented to the Ads Metrics team last week. Dan and I will work to trim the deck down as Jon told us that we will only have 15-20 minutes (we had 30 minutes last week).

- F.

Flora Lee | Google
lee@google.com | Direct: 425-732-5768

Attachments:
EPCOT-Study-Summary-March-15-2007.ppt
EPCOT Study Report: What do users see about Google ads?

Fiona Lee & Daniel M. Russell
Presented: AdMetrics meeting, March 15, 2007
**EPCOT Study overview**

- **Goals**: understand why ~80% of users don't click on Google.com ads
  - #1: Visual attention & attitude study of ads behavior
    - Top vs. RHS attentions
    - Attitudes about "sponsored links" vs. "ads"
    - Why click on a top ad?
    - Different styles of user "ad reading" behavior
  - #2: Visual search behaviors
    - Visual influence of results insertions into SERP
    - SERP reading behaviors

- **What we did**: conducted in-depth testing – with eye tracking software & videotape – of users attempting to complete 5 online tasks, followed by extensive debrief.

- **Where**: at IBM exhibit at EPCOT Innovations center, DisneyWorld, FL (hosted by IBM, joint project w/ Google)

- **When**: 4.5 days in mid-November 2006
Questions

1. Speeding Ticket/Online Traffic School
   You got a ticket or speeding recently and you want to take a defensive driving class to reduce the points on your license. You'd like to NOT have to travel anywhere to take the class. Find out if there is an online traffic school that you can take. Find an online class that is valid for you.

2. Unicycle
   Your child has asked for a unicycle. How would you FIND a unicycle that you would want to PURCHASE for your child online?

3. Bouquet of Flowers
   It's your favorite aunt's birthday tomorrow and you've forgotten to get her a present, so you'd like to send her some flowers. You're cheap and want to spend no more than $20. Use the Internet to FIND some flowers you can send for less than $20.

4. Rental Car
   You're on vacation in Orlando with your family. You just learned about a great wildlife park that you'd love to visit, but you'll need to rent a car to get there. How would you do this on the Internet?

5. Cell Phone & Plan
   You're thinking of getting a new cell phone and plan. How would you use the Internet to learn more about your options?
Study setup

- Subject screener:
  - US resident, > 18 YO, does 4+ internet searches / week

- Subjects did NOT know we were Google
  - Free to use whatever methods / search engines they wanted

- Subjects were NOT promised compensation
  - They were given Disney Dollars, but not promised it ahead of test
Snapshot of the people we tested

- N=26 (13 men and 13 women)
- All have used the Internet for >3 years (25 of 26 use it daily)
- All use e-mail and all have purchased online before
- Tech savviness
  - I do some computer programming: 8%
  - No formal training but friends come to me for tech advice: 23%
  - I'm not particularly savvy but get by fine without any serious problems: 54%
  - I need help most of the time but can sometimes figure it out myself: 8%
  - I need to call for help whenever I have a problem: 8%
- Search Sophistication
  - Sophisticated: 31% (8)
  - Somewhat sophisticated: 31% (8)
  - Somewhat unsophisticated: 31% (8)
  - Unsophisticated: 8% (2)
- Occupations
  - waitress, printer, librarian, oil industry, airplane installer, postal worker, physicians assist. driver, realtor, fraud analyst, etc.
- Location
  - KY, LA, NY, PA, MI, FL, GA, NC, AL...
### What makes a Sophisticated Searcher (from our observations)

<table>
<thead>
<tr>
<th>Sophisticated Searchers</th>
<th>Less Sophisticated Searchers</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Use multiple terms in search queries, e.g., specifics to narrow search and complete task (flowers under $20)</td>
<td>• Use generic keyword queries, even for tasks with specific requirements (child's unicycle)</td>
</tr>
<tr>
<td>• Use operators and advanced search techniques to search more precisely</td>
<td>• Poor search refinement strategy</td>
</tr>
<tr>
<td>• Thin slice — scan and rapidly assess search results, looking for relevance cues</td>
<td>— Repeat search using nearly the same query terms</td>
</tr>
<tr>
<td>— Bolded query in result</td>
<td>— Redefine a &quot;generic&quot; query by adding other generic keywords, e.g., cheap flowers → online flowers → online flower delivery</td>
</tr>
<tr>
<td>— URL/Link descriptions</td>
<td>— Spend a long time in a site searching in vain when it would have been better to try a new search</td>
</tr>
<tr>
<td>— Look &amp; feel of a site</td>
<td>• More likely to fail to complete task</td>
</tr>
<tr>
<td>— Reviews</td>
<td>• Unable to differentiate Top SLs from organic search results</td>
</tr>
<tr>
<td>• Quick study — reformulate query based on learning from initial search results</td>
<td>• Tend to look at RHS SLs first, or early during their scan of a results page</td>
</tr>
<tr>
<td>• Rapidly recognize low quality pages, e.g., link aggregators</td>
<td></td>
</tr>
<tr>
<td>• Know how to search within a site and use filters and sorts, e.g., sort by price</td>
<td></td>
</tr>
<tr>
<td>• Pogo-stick</td>
<td></td>
</tr>
<tr>
<td>• Tend to skip over top SLs on first pass</td>
<td></td>
</tr>
</tbody>
</table>
• Timing data from representative SS and LS users.
  – LS users: uniformly not fast – Michelle H., Mona Johnson, Debbie Marchand, Janice Franca, Candy Sandberg; (esp) Laura Odgen; Tina Cimino
  – SS users: Joseph Brown; Jason Perry; Jonanna Malone
  – But SOME SS are measured... Jason Farina (?) – civil engineer. George Bridges (1.5)
### 10 things we learned about Ads from EPCOT

1. **Sponsored Links (SLs) ≠ Ads**
   - Ads are pop-ups – intrusive and universally loathed
   - SLs generally tolerated, especially if relevant to query

2. **Ads/SLs generally accepted as a fact of online life but attitudes differ**
   - "They're paying money [to be there] ... doesn't bother me, you see it everywhere"
   - "I don't care if it's an ad ... as long as it gets me what I want"
   - "I stay away ... if they're paying to be listed, they're likely to be more expensive"
   - "Prefer to click on an ad – if someone is paying to be listed, then they're putting themselves out there ... more likely to be legit"

3. **Top SLs ≠ Organic results**
   - 76% of users recognize that Top SLs are paid for – but 56% of all users don't care as long as the SL is relevant (from debrief)
   - Searchers often skip over top ads initially, but come back after scanning results
   - Sophisticated Searchers (SS) are especially good at scanning and rapidly assessing the relevance of a search result/page (thin slicing), and modifying their query if not satisfied
Ads attitudes

Ad
Not an ad

- "Sponsored links" are a conceptually distinct category from "ads."
  - "ads" are lower quality, often invasive, often annoying, unclear what to do

- Many claim to "never look at RHS"—too low quality

- "top links" are considered as a commercial flavor of best search results
  - Often seen (23/26) as commercially flavored, but not as "ads"

⇒ We have to preserve the quality of the top ads to preserve our integrity

Confidential Attorney's Eyes Only
10 things we learned about Ads from EPCOT

4. Brand and past experience matter (brand = trust)
   - 81% of users would click on an ad if they recognize or have a good perception of
     the brand — offline or online ("I tend to avoid an ad unless it's a brand/site I'm
     familiar with ... worry about getting to a site I don't want.")
   - 69% of users would click on an ad if they'd had a good experience with that web
     site in the past.

5. Teleporting/Nav-query is common – especially when conducting a
   familiar search
   - 80% of users teleported while completing at least one task
   - Users were 3-4X less likely to teleport on the Unicycle and Traffic School tasks
     compared to Flowers, Rental Cars and Cell Phone
   - SS teleport more frequently than Less Sophisticated Searchers (LSS) – SS were
     2.5X more likely to teleport than LSS

6. People are more likely to click on ads/SLs when conducting
   unfamiliar searches.
   - 46% of users searching on unicycle task clicked on an ad/SL compared to 12% for
     the rental car task.
10 things we learned about Ads from EPCOT

7. RHS SLs are "too generic" – and people know it
   - "A lot of noise ... takes whatever you're looking for and inserts it into the RHS like a form or template"
   - "I never look at them ... [they] take me to a site where I have to search again"

8. UI makes it easy to identify – and ignore – SLs/ads
   TTClick on: Org = 7 sec; Top Ad = 10 sec; RHS = 20 sec
   - "I usually never click on ads, and if I do, it's only after scanning results ... I tend to ignore everything to focus on the first numbered results"
   - "I've trained myself never to look at the top [blue area] and RHS ... Yahoo's ads are always on the RHS"

<table>
<thead>
<tr>
<th>Position in slot</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>FirstPage, RHS, 1 ad</td>
<td>1.552</td>
<td>1.552</td>
<td>1.552</td>
<td>1.552</td>
<td>1.552</td>
<td>1.552</td>
<td>1.552</td>
<td>1.552</td>
<td>1.552</td>
</tr>
<tr>
<td>FirstPage, RHS, 3 ad</td>
<td>1.445</td>
<td>1.596</td>
<td>1.596</td>
<td>1.596</td>
<td>1.596</td>
<td>1.596</td>
<td>1.596</td>
<td>1.596</td>
<td>1.596</td>
</tr>
<tr>
<td>FirstPage, RHS, 5 ad</td>
<td>1.507</td>
<td>1.601</td>
<td>1.601</td>
<td>1.601</td>
<td>1.601</td>
<td>1.601</td>
<td>1.601</td>
<td>1.601</td>
<td>1.601</td>
</tr>
<tr>
<td>FirstPage, RHS, 6 ad</td>
<td>1.556</td>
<td>1.644</td>
<td>1.644</td>
<td>1.644</td>
<td>1.644</td>
<td>1.644</td>
<td>1.644</td>
<td>1.644</td>
<td>1.644</td>
</tr>
<tr>
<td>FirstPage, Top, 1 ad</td>
<td>1.672</td>
<td>1.723</td>
<td>1.723</td>
<td>1.723</td>
<td>1.723</td>
<td>1.723</td>
<td>1.723</td>
<td>1.723</td>
<td>1.723</td>
</tr>
<tr>
<td>FirstPage, Top, 2 ad</td>
<td>1.672</td>
<td>1.723</td>
<td>1.723</td>
<td>1.723</td>
<td>1.723</td>
<td>1.723</td>
<td>1.723</td>
<td>1.723</td>
<td>1.723</td>
</tr>
<tr>
<td>FirstPage, Top, 3 ad</td>
<td>1.672</td>
<td>1.723</td>
<td>1.723</td>
<td>1.723</td>
<td>1.723</td>
<td>1.723</td>
<td>1.723</td>
<td>1.723</td>
<td>1.723</td>
</tr>
</tbody>
</table>

Source: Diane Tang
Attitudes about top vs. RHS ads

I got to admit, I would rather click on these up here in this blue box, than anything of these over here [RHS]

Why is that?

Because over here [RHS] you get a lot of noise...

...you see a lot of things like: What is it? Next: NextRead: somebody.

NextTag?

Can't stand them. They're everywhere, and they never ever give you what you're looking for. They say "oh yeah, we've got this"
So when you were looking did you notice that blue background at all?

Right here? Oh yeah...

I don't know what that means, but I found that when I'm doing a lot of searches, usually what I'm looking for is right on point up there. I don't know, maybe it just fades you out... because it's front and center... but a lot of times it's more on point with what I'm looking for... not always.

What do you mean by "fades you out"?

Well, maybe this side [RHS] is best for what I'm interested in. But just from my own experience... what I really want to look at is in the top couple of links.
10 things we learned about Ads from EPCOT

9. Lack of understanding about Google’s Top SLs
   Users don’t understand that Google’s Top SLs are based on relevance first, then $6
   • “Google’s ad networks have to throw ads up to meet views from searches... don't trust it to meet my search criteria
   • “Top ads are ... prime real estate that someone bought to be a higher priority in my search ... agenda attached to it”

10. Less Sophisticated Searchers are different
   • Don’t differentiate Top SLs from Organic Results
     - 56% did not perceive any difference between Top SLs and organic search results (vs. 18% of SS)
     - More likely to click on RHS SLs – and click earlier rather than as last resort
       • “… info is easier to see and scan because there’s not as much text ... [with top ad/organic results] I have to scroll through everything... by the time you get to the bottom, it has nothing to do with what you’re looking for.”
       • “… have special things that I didn’t know about, that I didn’t know were available... expect to find bargains”
Other Learnings (caveat: based on our small sample of 26)

- SS and Tech Savvy users search frequently (practice makes perfect!)
  - More than 2X as many SS search several times/day as LS (76% vs. 33%)
  - Twice as many Tech Savvy users search several times/day compared to Non-Tech Savvy users (88% vs. 44%)
- But ... no correlation between Tech Savviness and Search Sophistication in our data
- LS Searchers are less able to differentiate Top SLs from organic search results
- Significant portion of Google users are SS (at least in our sample)
  - 83% of users for whom Google was their primary SE were classified as SS vs. 50% for Yahoo
- Food for thought:
  - Validate findings with larger sample size!
  - Deeper dive into SS vs. LSSs?
  - Are non-US users different? (Yes, CN has more browse clicks that reform searches, etc.)
Rapid scan leads to query reform
Scanning the results

- **Note scan pattern:**
  - Result 1
  - Result 2
  - Result 3
  - Result 4
  - Result 5

- Why do people scan back up the list? A: they’re learning how to evaluate the earlier results!

- Link to high-res view of fast scan w/query reform

---

**Why do people scan back up the list?**

A: they’re learning how to evaluate the earlier results!
Rapid choice

- Rapid assessment often leads to choice...
  - Scanning behavior—looking for recognizable things
    - Especially items that are salient for task
  - Pattern of inserted elements and text manipulations
    (bolding, color choices, icons, indents)
    profoundly affects the scanning behavior
  - Quick reading leads to intent reformulation based on what's learned
  - Spell correction is very rapid (easy to spot, practiced)
    - Always salient
How do people scan the page?

- Widely reported (Enquiry): top-down... top ads, then organic then RHS
But... (Enquirio)
But often... sophisticated searchers often skip the top ad

- Top organic first significant scan: 75% (out of 105)
### Per023 (106.8) SS

**Table:**

<table>
<thead>
<tr>
<th>Column 1</th>
<th>Column 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data 1</td>
<td>Data 2</td>
</tr>
<tr>
<td>Data 3</td>
<td>Data 4</td>
</tr>
</tbody>
</table>

**Note:**

- Confidential Attorney's Eyes Only
- Highly Confidential - Access is limited by Confidentiality Agreement

**Header:**

- Per023 (106.8) SS
- Confidentiality Agreement

**Footer:**

- 4331
Method lessons learned

- **METHOD**: Phrase questions as direct actions – FIND this, DO that, LIST these...
  - ... and not as generalities ("what would you do to find a rental car...")

- **METHOD**: The language used is very sensitive:
  - "do you recall any difficult search problems...?" No.
  - "do you recall any search problems that took you a long time?" Yes!

- **METHOD**: Practice question (that you throw away) very important
  - debugs all kinds of behavior and interpretation

- **PRACTICE**: You won't anticipate all the things you'll find out in advance

- **PRACTICE**: Intraocular lens implants totally frob the eyetracker

- **PRACTICE**: Disney/IBM site is incredibly good at collecting across broad demographics
Implications & Questions for Thought

1. Rapid scanning behavior \(\rightarrow\) results must be in form that's expected by searcher.

2. Will teleporting increase for niche/vertical markets (and decrease our penetration)?
   - Especially for SSs?

3. Should we do more to tell users that top ads are driven by relevance, not just money?

4. Should we get rid of RHS ads?
   - It would simplify the appearance of the page
   - It would free up space for something more user-friendly

5. Is top-ad skipping by SSs an issue? Or just an effect worth noting?