

Search Engine Results: 2010

What search engines may look like in the future, including personalization, universal search, eye tracking and interviews with leading industry experts

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What do the next three years hold for the world of search? Will the search results page in 2010 look similar to what we use today?

We interviewed some of the industry's top analysts and thought leaders to find out. And Enquiro conducted eye tracking on some of these possible future scenarios to see how users would interact.

About Enquiro Research

enquiroresearch.com

One of North America's leading search marketing firms, Enquiro provides online marketing and research solutions to a client base which includes several Fortune 500 companies. Its strategies are based on its own industry research and expertise in usability, and natural and sponsored search. Enquiro has also authored eye tracking studies which have given marketers a greater understanding of user interaction with the major search engines and defined "Google's Golden Triangle."

About Gord Hotchkiss

Gord has been active in the marketing and advertising industry for over 20 years and has led Enquiro to be one of North America's fastest growing tech companies. Also the board chairperson for the Search Engine Marketing Professionals Organization (SEMPO), he is recognized as an industry thought leader who is frequently called upon as a speaker, writer and analyst.

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Introduction

Search: 2010

Strategies and tactics used by marketers will have to evolve quickly and dramatically in order to keep pace with its rate of change being seen from the engines themselves.



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What does the next three years hold for the world of search? Will the search results page in 2010 look similar to the search results page we're seeing today?

We seem to be at a important juncture in the history of search engines. To this point, most of the innovation that's been happening with the search engine has been happening in the back end, improving and tweaking the algorithms. But in the past six months we've seen the beginning of what promises to be significant changes in the actual search interface. Google's unveiling of personalization and universal search together with Ask's unveiling of 3D Search both seem to indicate that the pace of change in interface design is picking up. Why is this important? The search results pages have remained a fairly static landscape for the entire history of search. There has been little change in the text oriented linear presentation of search results. The paradigm of 10 blue organic link and a handful of sponsored results has become fairly established amongst all the major players. And this common presentation of results has largely dictated what the scanning pattern of those results would be. This scanning pattern has been detailed in two eye tracking results conducted by Enquiro. But all that could change in the very near future as search engines become bolder in introducing innovation into the search results page interface.

For example, how will increased relevancy impact our interaction with search results? As personalization starts to provide the opportunity to determine relevancy not just by comparing it to a keyword but also comparing it to the intent of the user, will this result in a significantly different level of interaction with the search results page? And with the introduction of more types of results on the default page, will we be engaged with these results in a different manner? Will the mixing of text based website results and image-based video results change how we navigate our way through those results? Will advertising presented on the search

results page have to change in order to be noticed on a richer results page?

At Enquiro, we have long been saying that the introduction of things like personalization and universal search results will dramatically impact the entire world of search marketing. The rules will change significantly and the strategies and tactics used by marketers will have to evolve quickly and dramatically in order to keep pace with the rate of change being seen from the engines themselves. It seemed logical to us that now would be an opportune time to take the pulse of the search user experience and try to see a few years into the future how changes may impact both the user experience and effective strategies to intercept those users. So we launched an initiative to interview a select group of experts. First we talked to the usability people at each of the major engines, Marissa Mayer at Google, Larry Cornett at Yahoo, Justin Osmer at Microsoft and Michael Ferguson at Ask. Then we reached out to top industry analysts and thought leaders and chatted with each of them. This group included Danny Sullivan, Jakob Nielsen, Chris Sherman and Greg Sterling. With each, we asked one simple question: what will the search results page look like in 2010? Of course, implied within this question is what will our search experience be like in 2010? And that's perhaps the bigger question. What screen will it be happening on? With what intent will we be using it?

This white paper not only brings together the various opinions from each of these industry influencers and attempts to draw out some consistent themes, it actually goes two steps further. We took all the input we received from these experts and aggregated them into a picture of what the search results page might look like in 2010. Then we conducted an internal eye tracking test here at Enquiro to see what impact things like a dramatically new interface, a richer presentation of advertising messages, a greater degree of relevancy based on access to personal information and an aggregation of different types of results on the

same page might have on the average user. We conducted a series of eye tracking tests on different types of search results pages, including a typical results page with universal results (as they're currently being implemented on Google), personalized results as they may look in the next 12 months, Ask's 3D Search, and finally, our view of what the search results page might look like in 2010 based on the input we received from all our experts. We've included the results from these eye tracking tests in this report.

Finally, we share our thoughts about what useful strategies might be for search marketers in the future. How do you successfully position yourself to take advantage of the innovations being introduced by the search engines? How do you ensure that your message will be seen on a much richer, much more functional search results page?

We believe you'll find the insights presented fascinating. It was a question that all our respondents warmed up to and showed great enthusiasm for. There is, without a doubt, great passion about the future of search and we strongly believe that the next three years will represent the most exciting era yet in the short history of web search.

Search Engine Results: 2010

The choice of 2010 as the target date for our speculation was more a matter of looking for a nice round number than any deliberate thought, but as it turned out, the setting of the three-year horizon proved to be an interesting one. It was just far enough ahead that it was difficult to extrapolate based on current work being done at the engines, yet it wasn't far enough out to allow for total blue sky brainstorming. Almost without exception all our interviewees made comment about how challenging they found the three-year framework to predict within. It forced us to balance practicality with bold predictions.

Despite this, there was an amazing amount of dis-

crepancy in the degree of optimism about how much the search experience will change in three years. Jakob Nielsen was probably our most pragmatic respondent, indicating he doesn't expect any significant changes in the three-year framework. Nevertheless he did speculate on three areas where we could see innovation. Contrast this with predictions of rich Ajax functionality, mash ups and multi-touch displays.

What we'll do within this white paper is take all the input we received from the interviews and group them into a number of common themes. For anyone interested in reading the full transcripts of the interviews, these are posted on Gord Hotchkiss's [Out of my Gord](#) blog.

The eye tracking studies

Of course, given our research bent and our past history with eye tracking, one couldn't expect us to speculate on what a search results page might look like in 2010 without wondering how a user might navigate that same page. What we wanted to do was create some comparisons of what interactions may look like given some of the innovation that's creeping onto the page. We set up an internal testing framework that created four different versions of similar sets of search results. First of all, we recorded interactions with the results pages to represent the current user experience on Google. We gave our participants scenarios that would result in the presentation of universal search results.

Then, we presented scenarios and (based on past history and comments from participants) created personalized results in a slightly more aggressive presentation than that currently seen on Google.

Finally, we took all the input from all our interviews and asked our designer, Cory Bates, to put together a sample of what a search results page might look like in 2010. We presented the results to our participants and recorded interactions using our eye tracking system.

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Methodology

Methodology

Objectives

The overall objective of the study is to compare universal search against personalized search using Google's Search Engine. Specifically the questions we want to answer are the following:

- Does personalization have an effect on the time spent on a SERP?
- The hypothesis is that personalized search results will increase time spent on a SERP due to the increased relevancy in the results.
- What is the search behavior on a multi-paned site, ASK.com versus Google?
- Does the scan pattern vary depending on the user's commercial or non-commercial intent for 2010 SERP? What is the user interaction?

Rationale for Study Design

In order to investigate the above objectives we chose to focus on Google Search Engine Result Pages (SERP). This engine was chosen so that comparisons can be made to previous baseline eye tracking results. This involved a series of related eye tracking tasks to test engagement of users with universal, personalized, ASK.com and a futuristic rendition of what a 2010 SERP may look like.

Limitations of the study included users giving consent to track their web history.

Eye Tracking Methodology Details

Panel recruitment:

- 16 people between the ages of 24 and 55,

- Preferred search engine is Google, and,
- Informed consent given by each individual to track their web history over a period of a three individual eye tracking sessions.

Universal Search

Each person was given three tasks to research an iPhone, Harry Potter and the Spice Girls. These tasks were chosen because of the presence of universal Google results (video, blogs, news, images, etc.).

Task Scenarios

You have been hearing a lot about Apple's new iPhone recently and would like to know if it's something you should invest in. Use the following set of results to learn more about it.

The new Harry Potter movie, "The Order of the Phoenix" is due to come out in the next few weeks and you have a 10 year old nephew that would like nothing more than to watch it with you. Use the following set of results to decide if he is old enough to watch it.

This just in! The Spice Girls have decided to reunite for a worldwide tour later this year. This news has "train wreck" written all over it and you can't wait to get a ticket. Use the following set of results to learn more about their upcoming tour.

Personalization

Each person was logged into a single secured Google Account to track web history on a Google search for iPhones. The URLs for all the pages they viewed were analyzed and selected based on a few factors: time spent on different online media (news, customer reviews, local results, blogs, and sponsored sites such as the Apple Store) and the purchase phase of their search.

Google SERP pages were then mocked up for each person depending on where they finished off their last search. The positions that were personalized were Top Sponsored #2 (stayed consistent for each person – “iPhone in Canada”) and Organic results 3, 4 and 5.

Each person was presented their personalized search results page and we tracked eye movement and engagement with the personalized and non-personalized content on the page.

Task Scenarios

Assume you are interested in learning more about the iPhone and so, have performed a search for iPhone on Google. Interact with the following page layout and click on the item that you would click-through on.

Assume you are interested in purchasing the iPhone and so, have performed a search for iPhone on Google. Interact with the following page layout and click on the item that you would click-through on.

ASK

Similarly, to measure fixations and time spent on a multi-paned search engine, each person was asked to search for Harry Potter on ASK.com.

2010

All users were asked to review the 2010 SERP and were presented one of two mock-ups that was dependant on whether they were in the research or purchase phase of the buying process.

The Interviewees



"If I ever had to build a search engine, or more precisely, the interface of a search engine, this would be the team I would want to bring together."



Jakob Nielsen

Jakob Nielsen, Ph.D., is a User Advocate and principal of the [Nielsen Norman Group](#) which he co-founded with Dr. [Donald A. Norman](#) (former VP of research at Apple Computer). Until 1998 he was a Sun Microsystems Distinguished Engineer.

Dr. Nielsen founded the "discount usability engineering" movement for fast and cheap improvements of user interfaces and has invented several usability methods, including [heuristic evaluation](#). He holds 79 United States patents, mainly on ways of making the Internet easier to use.



Larry Cornett

Larry Cornett is Vice President of Search Experience at Yahoo! Before that, he led the eBay team focused on Tailored Shopping Experiences, Platform, and International sites. He Apple's designer for the Finder in Mac OS 8, 9, and OS X and

worked at IBM working on database and development software. He was a principal consultant at an interaction design agency he founded, working on desktop, web, and mobile solutions. He received his Ph.D. in HCI Psychology from Rice University and holds multiple patents for his work on web-based products and hardware solutions.



Marissa Mayer

Marissa leads the product management efforts on Google's search products. She joined Google in 1999 as Google's first female engineer. Several patents have been filed on her work in artificial intelligence and interface design.

Prior to joining Google, Marissa worked at the UBS research lab (Ubilab) in Zurich, Switzerland and at SRI International in Menlo Park, California.

Graduating with honors, Marissa received her B.S. in Symbolic Systems and her M.S. in Computer Science from Stanford University. For both degrees, she specialized in artificial intelligence.



Greg Sterling

Greg Sterling is the founding principal of Sterling Market Intelligence, a consulting and research firm focused on the Internet's impact on local consumer and advertisers behavior. He also is a Senior Analyst for [Local Mobile Search](#), an advisory service from Opus Research.

Before Sterling Market Intelligence, Sterling ran The Kelsey Group's Interactive Local Media program. Prior to The Kelsey Group, Sterling was at TechTV where he helped produce "Working the Web," a national television show dedicated to e-business and the Internet. Before TechTV he was a founding editor and executive producer at AllBusiness.com.



Michael Ferguson

Michael Ferguson is Senior User Experience Analyst for Ask.com. Looking at motivations, behavior, and experience through culture, technology, and psychology, he informs product development with user context and design strategy.

Photo by Scott Beale / Laughing Squid

Before joining Ask, Michael ran an interactive design agency with clients that included Oracle and Stanford's Graduate School of Business, as well as independent film makers and film festivals. Michael holds a B.A. in British and American Literature from New College of Florida.



Chris Sherman

Chris Sherman is Executive Editor of SearchEngineLand.com and President of Searchwise LLC, a Boulder Colorado based Web consulting firm. He is the author of a number of books on search engines and programming, including "Google Power:

Unleash the Full Power of Google" and "The Invisible Web: Uncovering Information Sources Search Engines Can't See" (with Gary Price). Chris holds a master's degree in Interactive Educational Technology from Stanford University and a bachelor's degree in Visual Arts and Communications from the University of California, San Diego.



Danny Sullivan

Widely considered a leading "search engine guru," Danny Sullivan has helped many understand how search engines work for over a decade. Danny has been quoted in The Wall St. Journal, USA Today, The Los Angeles Times, Forbes, The New Yorker

and Newsweek and ABC's Nightline. Danny began covering search engines in late 1995 with "A Webmaster's Guide To Search Engines," later expanding the guide into Search Engine Watch, serving as editor-in-chief through November 2006. Now he heads up Search Engine Land as editor-in-chief, taking it into the next generation of search coverage. Danny is also Third Door Media's chief content officer.



Justin Osmer

Sr. Product Manager, Live Search, Microsoft Corp.. Justin's career started in the early 1990's as a communications professional and he first worked in Search in the late 90's on the "client side" manually submitting URL's to Yahoo!, AltaVista, and Excite. Since that time he

has been in multiple marketing communications and product management roles across multiple industries and is currently in his fourth year at Microsoft. As Sr. Product Manager on Search Justin works with the Live Search engineering and development team as well as the marketing team to develop and introduce the Microsoft Web Search experience to millions worldwide.

Search: 2010

The Interviews



"It's a huge dominant user behavior to scan a linear list and so this attempt to put other things on the side, to tamper with the true layout, the true design of the page, to move from it being just a list, it's going to be difficult"

If I ever had to build a search engine, or more precisely, the interface of a search engine, this would be the team I would want to bring together. When I came up with the idea of looking forward three years and speculating on what the search results page may look like in 2010, these are the names that immediately came to mind:

Jakob Nielsen, the Web's best-known usability guru

Marissa Mayer, Google's VP of Search User Experience and interface design

Michael Ferguson, one of the architects of Ask's unique user experience

Larry Cornett, the VP of user experience at Yahoo

Justin Osmer, product manager for Microsoft's search

Chris Sherman, executive editor of Searchengineland and always thoughtful industry observer

Greg Sterling, another industry analyst who always has interesting insights, particularly in to the local and mobile world

Danny Sullivan, the Go to Guy of search

This would be the dream team for designing the new search interface. So it was with a great deal of anticipation that I threw the same question in front of all of them : What will the search results page look like in 2010? Here, aggregated and condensed, are their answers. I've broken them into themes that consistently came out in these interviews.

The look of the search results page

The search results page has defined itself into an accepted standard. With the exception of Ask3D, all the other major players have a very similar look

to the page. We have some sponsored ads on top, ten blue organic links and generally some sponsored ads on the left side. It's a very linear format that runs from top to bottom and is almost always composed exclusively of text. And although this format has refined itself over the past decade, there haven't been any significant changes to the look. Will that continue to be true in the next three years?

Marissa Mayer: *I think it will be, hopefully, a layout that's a little bit less linear and text based, even than our search results today and ultimately use what I call the 'sea of whiteness' more in the middle of the page, and lays out in a more information dense way all the information from videos to audio reels to text, and so on and so forth. So if you imagine the results page, instead of being long and linear, and having ten results on the page that you can scroll through to having ten very heterogeneous results, where we show each of those results in a form that really suits their medium, and in a more condensed format. When you started seeing some diagrams, some video, some news, some charts, you might actually have a page that looks and feels more like an interactive encyclopedia. To keep hounding on the analogy of the front page of the New York Times. It's not like the New York Times...I mean they have basically the same layout each time, but it's not like they have a column that only has this kind of content, and if it doesn't fill the column, too bad. They have a basic format that they change as it suits the information.*

Jakob Nielsen: *There could be small changes, there could be big changes. I don't think big changes. The small changes are, potentially, a change from the one dimensional linear layout to more of a two dimensional layout with different types of information, presented in different parts of the page so you could have more of a newspaper metaphor in terms of the layout. I'm not sure if that's going to happen. It's a huge dominant user behavior to scan a linear list and so this attempt to put other things on the side, to tamper with the*

true layout, the true design of the page, to move from it being just a list, it's going to be difficult, but I think it's a possibility. There's a lot of things, types of information that the search engines are crunching on, and one approach is to unify them all into one list based on it's best guess as to relevance or importance or whatever, and that is what I think is most likely to happen. But it could also be that they decide to split it up, and say, well, out here to the right we'll put shopping results, and out here to the left we'll put news results, and down here at the bottom we'll put pictures, and so forth, and I think that's a possibility.

Larry Cornett: *The search experience is becoming a lot more interactive, it's a lot more of a dynamic experience and we're all experimenting with bringing back a lot of richer content. And rich meta data, structured data, much more than we ever were doing before. It's going beyond the simple text title and abstract and URL, right.*

Does search become our own personal portal page?

As search engines get to know us better, do they become our home page for everything? Do search engines get smart enough to bring together all the information we need about any topic, at our request, and organize it into a rich portal like page that gives us a jumping off point into a number of different types of content. It used to be that search was a "get on, get off" task but increasingly, search is becoming a stickier experience. Google, probably the clearest example of the "tool based" approach to search, has recently acknowledged the importance of personalized homepages with the introduction of iGoogle, moving them much closer to a Yahoo type model.

Larry Cornett: *I think one place that you've seen us doing a bit of that is with what we call our WOW experiences. And so we launched a few of the movies, it's like a direct display; it's a really rich direct display on the search page. We've launched mov-*

ies; we recently launched travel and, most recently music, so music artists. And essentially that's bringing a lot of very useful information from different sources together in one place. And so users don't have to click and go one place to see the trailer, click and go to another place to see information about the movie and ratings, click to yet another place to get show times for their local city. It's actually all brought to the user in one compact module so it's all that information that they would find useful in one place. I can't speak to what Google is up to but they obviously must realize that a home page with nothing but a search box isn't quite serving everything that people want. And they launched iGoogle, obviously, for that reason.

So let's venture one step further. What if this search portal, iGoogle, let's us enter a query and it builds a page for us which appears as a new tab, complete with a mix of results, based on the engine's understanding of where we're at and what our intent is. I put that to Justin Osmer (without the iGoogle part):

Justin Osmer: *Yes, I can see that very easily. And we've just scratched the surface on that with live.com. You can set up a personalized page on live.com and pull in search results. You can set it up so that it queries news results for you everyday. You get fresh news results on a query that you always search on, you can bring in all sorts of RSS feeds from literally the whole web, so you're constantly getting updates of feeds very easily and you can subscribe to an interest area of search and get that populated for yourself. That absolutely is a scenario that makes a lot of sense.*

Search as a social experience

Personalization has somewhat pushed social search to the back burner as a promise for the future. But increasingly, the social nature of the web is converging with search in more and more cases. Will the next three years see a furthering of this convergence and the blending of Web communities and



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search functionality?

Larry Cornett: *And that's having more of a human influence and obviously more of a human presence in the search experience. You'll see that quite a bit with the way that [StumbleUpon](#) has been working, the things that we've done with image search with a tighter integration of Flickr images and really showing the attribution that those photographs coming from real people within the network.*

Larry's comment made me think of a future where we may stay within our favorite online communities more and look for search functionality to be brought into that environment. And in that environment, will search become more of a discovery tool then a navigational tool? Will search leverage the benefits of the community to help make suggestions in less task focused situations?

Larry Cornett: *You talk about [Facebook](#), you talk about some of these other examples where people may have a fuzzier information need or a different type of desire for information. In many cases, image search for example, people use it for entertainment and so they're using it to pass the time or they're just curious. And in those cases, it's not like they have really specific targeted goals in mind or very specific queries in mind even, but they're pretty open to being given information, so you'll see that with Facebook, a lot of that is you coming in and just understanding what's going on within your network and that activity. And so you're learning about things that you may not have even formed a query about. Your friend's telling you about a new website that you wouldn't even know to ask about on a search engine. You discover it because he tells you about it. StumbleUpon is very similar in that you want to see what people consider to be quality content and you don't know exactly what you're looking for, but you just press the stumble button and see what are people thinking is interesting right now. So this is definitely, I think, a lot of convergence in some of these areas.*



"I don't really see any kind of dramatic breakthrough on the horizon...And it's not because people aren't trying, it's because of those inherent ambiguities in language."

Smarter search engines

Another major theme was not so much what search engines would look like but how they would get smarter in the background. Driving this would be factors like personalization and tweaking of algorithms.

Personalization

Talk of personalization has pretty much dominated the search engine space for the last two or three months. Our panel seems somewhat split on the promise of personalization to significantly move the needle on relevance in the next three years.

Chris Sherman: *I don't really see any kind of dramatic breakthrough on the horizon. I think as long as we're limited to the current search form factor, if you will, where we're encouraged to do the jukebox approach, where we punch in a few keywords, pull the lever and hope to get the jackpot. Language is so inherently ambiguous that as good as the search engine gets, as good as they are at observing our behavior and our habits of reading and so on, being limited to those very, very short queries, that's really the governor on the whole thing. Until search engines can find a way to let us search, for example, by submitting a page of content and analyzing the full text of that page and then tying that in conjunction with our past behavior, that's just one approach, there's a whole variety of ways we can go about doing it, but I just don't see any thing major. And it's not because people aren't trying, it's because of those inherent ambiguities in language.*

Danny Sullivan: *I think personalized search is going to continue to get strong. I do think that Google is on to something with their personalized search results. I don't think that they're going to cause you to be in an Amazon situation where*

you're continuing to be recommended stuff you're no longer interested in. I think that people are misunderstanding how sophisticated it can be.

Jakob Nielsen: *All this stuff, all this talk about personalization, is incredibly hard to do. Partly because it's not just personalization, based on a user model, which is hard enough already. You have to guess that this person prefers this style of content and so on. But furthermore, you have to guess as to what this person's "in this minute" interest is and that is almost impossible to do. I'm not too optimistic on the ability to do that. In many ways I think the web provides self personalization, you know, self service personalization. I show you my navigational scheme of things you can do on my site and you pick the one you want today, and the job of the web designer is to, first of all, design choices that adequately meet common user needs, and secondly, simply explain these choices so people can make the right ones for them. And that's what most sites do very poorly. Both of those two steps are done very poorly on most corporate web-sites. But when it's done well, that leads to people being able to click-click and they have what they want, because they know what they want, and it's very difficult for the computer to guess what they want in this minute.*

Greg Sterling: *I think there are some technical issues like, what does it mean, and what does that look like. You and I doing the same queries over a period of time, what would our results look like? Is there a real benefit there for us? We could probably argue in some cases yes, I would point to the local as an example. I think there is a political challenge, right? My point of view is that there is a PR and political challenge around privacy and the so called creep factor that people feel when they think that the engine is studying them and monitoring their behavior and that record somehow makes them vulnerable or makes them uncomfortable. But I do think it is a potentially significant advance in certain contexts, if it really goes to disambiguation. Yes, I think in certain cases it does make a mean-*

ingful difference.

Larry Cornett: *I think we're just barely on the tip of the iceberg with how useful it could be. I think traditional approaches to personalization have required a lot of work on the part of the user and I think, just given my experience over the past years in various places, at different companies and working for software and the Web, people don't like to spend a lot of time configuring their preferences. So anytime you try to take an easier approach and say I'll let the user customize experience or personalize it, it'll work for a small number of users that care to invest but the large majority don't want to have spend a lot of time doing that. So I think the key to personalization is actually finding a way to do that in a way that requires very low investment from the user and it has a lot of return. And so it's finding that balance of trying to get that just right so that the user gets a lot more value than they have to put energy into it.*

I then asked Larry if 3 years was too short a time for personalization to make a significant difference:

Larry Cornett: *You know, in the past I might've said yes but I think there's an increasing pace of change that's occurred within this industry. And I think that three years is not too long, within the next three years I think we'll definitely have a lot more answers and I think there's so many people that are springing up in this space, playing around with all these startup experiences for search that the velocity definitely increase. I think that's we'll see something soon.*

Justin Osmer brought up a variation on personalization with mode based search, where engines become smarter at unraveling the intent of the user:

Justin: *An area that we're focusing on over here at Live search is thinking more about the mode in which people are in when they're using search.*



"My point of view is that there is a PR and political challenge around privacy and the so called creep factor that people feel when they think that the engine is studying them and monitoring their behavior and that record somehow makes them vulnerable or makes them uncomfortable."

Are they exploring, just kind of poking around, or truly researching something? Are they looking to purchase something? Are they in there simply for entertainment refreshment sake? So they just need five minutes to goof off and poke around and look up vacations or something. Then being able to present the results in a way that give you that full spectrum of experience, so that the modes of consumption will dictate how much you get in line, so the verticals in essence will become obsolete. The same rich content that you might get in a vertical experience may be brought inline or brought onto the results page in a way that shows you, wow, the search engine really does have more here, in a unique way.

Osmer said this “mode identification” could be accomplished in a few ways, including personalization:

Justin: *I think we're getting close to a tipping point on personalization where people are going to figure out that, “Wow, I can get a lot more out of my search experience if I tell the search engine more about me.” And so it may require some one-time setup time charge to you, to go in and say you like this or you don't like this, or you want this or you don't want this, or simply just clicking a box that says “Yes, I okay the search engine to track my queries, or look at my clickstream and give me more relevant information or I want to participate in a beta product that allows me to tell the search engine what I'm looking for so it can learn more about me or people like me.*

The other way would be by using the query itself as a determiner:

Justin: *We know what the super popular queries are on a day-to-day basis and usually they fall into a category and so if we know the “Paris Hilton”, that's an area where you're probably in an entertainment mode and so we would try and offer up a user experience of search results page that would be more tuned that way*

Is Google holding a number of personalization cards up their sleeve?

So obviously, the opinions on the effectiveness of personalization are mixed. But I can't help wondering if Google is holding a significant portion of the effectiveness of their personalization algorithm in reserve, pending further testing on the beta dataset they're currently collecting. I posed this possibility to Chris Sherman.

Chris: *I suspect that there's probably quite a bit more that they're not showing but I don't know that it's necessarily that they're being secretive. I think there's caution that changing things too much might alienate the searcher with the search results. I think if they got things that they are able to do, we'll start to see them gradually, in a testing fashion, where a few users will be exposed to it and over time, yes, they'll be rolled out. But honestly, I don't know, that's just speculation on my part. But with the number of people that are working on this stuff, they probably have tons of stuff that they're not showing us.*

Search driven by Query Trends

Danny Sullivan brought up the fact that search engines, with their access to query volumes and trends, should be able to alter the results for extraordinary circumstances:

Danny: *I think they're going to get a lot more intelligent at giving you more from a particular database when they know you're doing a specific a kind of search. It's not necessarily an interface change, but then again it is. This is the thing I talked about when the London Car Bombing attempt happened, and I'm searching for “London Bombings”. When you see a spike in certain words you ought to know that there's a reason behind that spike. It's going*

to be news driven probably, so why are you giving me 10 search results, why don't you give me 10 news results?

Will usefulness become part of a search algorithm?

A tantalizing tidbit of prediction was touched on by a few different people, notably Jakob Nielsen and Marissa Mayer. As we begin interacting with our search results and websites, will the notion of usefulness be factored into future search algorithms? Jakob Nielsen brought up the possibility.

Jakob: *I think we can see a change maybe being a more of a usefulness relevance ranking. I think there is a tendency now for a lot of not very useful results to be dredged up that happen to be very popular, like Wikipedia and various blogs. They're not going to be very useful or substantial to people who are trying to solve problems. So I think that with counting links and all of that, there may be a change and we may go into a more behavioral judgment as to which sites actually solve people's problems, and they will tend to be more highly ranked.*

And then, without prompting, Marissa Mayer indicated this may be in Google's thinking in the future as well. She talked about people marking up search results and webpages and interacting with them in a way that indicated that they found them useful and valuable.

Marissa: *I think the presentation is going to be largely based on our perceived notion of relevance, which of course leverages the user, in the ways they interact with the page, and looks at what they do and that helps inform us as to what we should do.*

Contextual Search

Another area of innovation is launching a search from within the context of a task or an application

through application or operating system integration. Not surprisingly, this was brought up by Justin Osmer from Microsoft, who has long been promising this integration. Chris Sherman also brought it up as another signal to disambiguate intent:

Justin: *From a Microsoft perspective, also being able (when you're in Office) to search while you're writing a Word document; to just do a right-click and boom, you're searching on the term you just highlighted. And you're able to set up a search default to whatever engine you want. Some of that technology is there today but we're going to be doing more and more that I think.*

Chris: *Until search engines can find a way let us search by submitting a page of content and analyzing the full text of that page and then tying that in conjunction with our past behavior, that's just one approach.*

The semantic search engine?

When will Web 2.0 come to search? To this point, search is still a fairly rudimentary experience, compared to the innovation seen through the rest of the web. The text based presentation and the typical blue hyperlinks look more like the web of 1996 than the web of 2007. Will that change in the next three years? Well, it actually has already started to change. The experience presented on Ask3D Search rolls in much more functionality than we've typically seen on a search results page. And this seems to be acting as a catalyst for all the search engines to look at rolling in more functionality. Ajax and other richer programming environments will make the user experience more intuitive and seamless.

Marissa: *We will be able to have much more rich interaction with the search results pages, there might be layers of search results pages: take my results and show them on a map, take my results and show them to me on a timeline. It's basically*

the ability to interact in a really fast way, and take the results you have and see them in a new light.

But it's not just search engine results pages that Marissa sees a higher level of interaction with. She sees a deeper or more interactive experience with all web pages by being able to annotate and markup pages for future reference.

Marissa: *I think that people will be annotating search results pages and web pages a lot. They're going to be rating them, they're going to be reviewing them. They're going to be marking them up, saying "I want to come back to this one later". So we have some remedial forms of this in terms of Notebook now, but I imagine that we're going to make notes right on the pages later. People are going to be able to say I want to add a note here; I want to Google something there, and you'll be able to do that.*

Marissa Mayer also talks about the ability to sort results based on different dimensions, such as location and time.

Marissa: *What I'm sort of imagining is that in the first basic search, you're presented with a really rich general overview page, that interweaves all these different mediums, and on that page you have a few basic controls, so you could say, look, what really matters to me is the time dimension, or what really matters to me is the location dimension. So you want to see it on a timeline, do you want to see it on a map? It's a richer experience. What's nice about timeline and date (as we're currently experimenting with them on Google Experimental) is not only do they allow you to sort differently, they allow you to visualize your results differently. So if you see your results on a map, you can see the loci, so you can see this location is important to this query, and that location is really important to that query. And when you look at it in time line you can see, "wow, this is a really hot*

topic for that decade". They just help you visualize the nut of information across all the results in these fundamentally different ways that 'sort' kind of gets at. But it's really allowing that richer presentation and that overview of results on the meta level that helps you see it.

Danny Sullivan also touched on the same theme:

Danny: *I think the most dramatic change in how we present search results, really has come off of local. And people go "wow, these maps are really cool!" Well of course they're really cool, they're presenting information on a map which makes sense when we're talking about local information. You want things displayed in that kind of manner. It doesn't make sense to take all web search results and put them on a map. You could do it, but it doesn't communicate additional information for you that's probably irrelevant and that needs to be presented in a visual manner. If you think about the other kinds of search that you tend to do, Blog search for instance, it may be that there's going to be a more chronological display, much like what we saw them do with news archive where they would do a search and they would tell you this happened within these years at this time. Right now when I do a Google blog search, by default it shows me 'most relevant'. But sometimes I want to know what the most recent thing is, and what's the most recent thing that's also the most relevant thing right? So perhaps when I do a Google blog search, I can see something running down the left hand side that says "last hour" and within the last hour you show me the most relevant things in the last hour, the last 4 hours, and then the last day. And you could present it that way, almost sort of a timeline metaphor, I'm sure there are probably things you could do with shading and other stuff to go along with that.*

...if you really want to talk about search interfaces, what will be really fun to envision is what happens when Ajax starts coming along and doing other things. Can I start putting the sponsored search

results where they are hovering above other results? Is there another issue that comes with that? There may be some confusion as to why I was getting this and I was getting that, can I pop up a map as I hover over a result? I could deliver you a standard set of search results and I can also deliver you local results on top of a particular type of picture. If I move my mouse along it I could show you a preview of what you get in local and you might go "Oh wow, there's a whole map there" and jump off in that direction. That would be quite useful to see that stuff come off of there. But right now I just don't see anything coming out of it. What we typically have had when people have played with the interface is, these really weird things like, 'well we'll fly you through the results, or we'll group them'. None of which is really something that you'd need added to the choices, do I want to go vertical, do I not want to go vertical?

More of a hands-on experience with greater functionality exposed to users

The nature of our interaction with the search results page is fairly static. We look and we click. Any attempt to incorporate more functionality on the results page, in the form of filtering options, has been met, on the most part, with apathy from users. Even the advanced search functionality that's been around for over a decade is used by a very small percentage of users. Are we ready as users to get our hands on the buttons and dials that could fine-tune our search? Will search become more of an interactive experience?

Chris Sherman saw us getting our hands on the buttons and levers that power personalization:

Chris: *I think what they might do is start to expose some of those algorithms and some of those knobs and dials to let us dial-up or dial-out with certain personalization features and fine-tune their search results using controls that are more similar to what you'd find on Photoshop where we've got sliders and dolls or various graphic displays. And I*

think we'll see search results actually changed dynamically in real time as we apply those various tools.

Danny Sullivan feels it depends on the task.

Danny: *If you're just doing a general search, I don't think that putting a whole lot of functionality is going to help you, you could put a lot of options there and historically we haven't seen people use those things, and I think that's because they just want to do their searches. They want you to just naturally get the right kind of information that's there and a lot of the time they give you that direct answer. You don't need to do a lot of manipulation. It's a different thing I think when you get into a lot of vertical, very task orientated kinds of searches, where you're saying, 'I don't just need the quick answer, I don't just need to browse and see all the things that are out there, but actually I'm trying to drill down on this subject in a particular way'. Local tends to be a great example. 'Now you've given me all the results that match the zip code, but really I would like to narrow it down into a neighborhood, so how can I do that?' Or a shopping search. 'I have a lot of results but now I want to buy something, so now I need to know who has it in inventory? Now I really need to know who has it cheapest? And I need to know who's the most trusted merchant?' Then I think the searcher is going to be willing to do more work on the search and make use of more of the options that you give to them.*

Jakob Nielsen believes it's a possibility, but one he's not too optimistic about:

Jakob: *The third one is to add more tools to the search interface to provide query reformulation and query refinement options. I'm also very skeptical about this, because this has been tried a lot of times and it has always failed. If you go back and look at old screen shots of all of the different*



"I think what they might do is start to expose some of those algorithms and some of those knobs and dials to let us dial-up or dial-out with certain personalization features and fine-tune their search results using controls that are more similar to what you'd find on Photoshop where we've got sliders and dolls or various graphic displays."



"I think this will be true in 2010, the text results are still a very important visual part of the page. They do not necessarily look as sexy as some video or some audio but that is the core of the experience and that's why we still have those in the prominent placing that we do. So my sense is you're not going to be able to ask the users to do work, their footsteps will walk to the experience that is most delightful and easy for them to use."

search engines that have been out there over the last 15 years or so, there have been a lot of attempts to do things like this. People are basically lazy, and this makes sense. The basic information foraging theory, which is, I think, the one theory that basically explains why the web is the way it is, says that people want to expend minimal effort to gain their benefits. And this is an evolutionary point that has come about because the creatures who don't exert themselves are the ones most likely to survive when there are bad times or a crisis of some kind. So people are inherently lazy and don't want to exert themselves. Picking from a set of choices is one of the least effortful interaction styles which is why this point and click interaction in general seems to work very well. Whereas, tweaking sliders or operating pull-down menus and all that stuff, is just more work.

Michael Ferguson: *It's our job to go out of our way to make something as quickly navigable and easy to use as possible without [users] having to make any effort or set preferences, etc. We are always focused on what is the fastest flow for people to get to the core of what they are trying to get to out of the search results, so as far as bringing more steps onto the page ...it has to be done with respect to the users intent and goals and really cannot compete with that. I think this will be true in 2010, the text results are still a very important visual part of the page. They do not necessarily look as sexy as some video or some audio but that is the core of the experience and that's why we still have those in the prominent placing that we do. So my sense is you're not going to be able to ask the users to do work, their footsteps will walk to the experience that is most delightful and easy for them to use.*

Greg Sterling: *You will get more participation if it's easy, if it's fun, if it's effective and makes the experience better. If I do travel research and I can quickly capture and copy and save hotels, destinations or whatever and manipulate and come back to those, that kind of thing is valuable. But you make a fair point about putting a burden on users to do*

stuff and I think that in the light of keyword query string lengths, which has stagnated I think, I don't know where the high point of the bell curve is...it's like two or three words. Norvig talks about getting people to interact more with the search engine so the result can be better right and he's saying...he's sort of admitting with his implied conversation about speech recognition or speech input that you can't really get people to formulate these coherent questions or longer query strings and you have to find alternative strategies so some mix of active solicitation or tools that make it fun or interesting and then passive personalization or other strategies to get people a better result.

Stratification of user functionality

So, if the search engine is going to ask more of us as users, in return for giving us greater control over defining our search experience, will we run into the same problem we currently have with advanced search? Will those features only appeal to a small percentage of users who are comfortable rolling up their sleeves and interacting with the engine? And will this mean that we'll have two versions of search, one for power users and one for the rest of us?

Chris Sherman: *I don't think so. I think most people live with the results that they get. Right now, today we have advanced search and nobody uses it. There are a lot of tools are really allow power users to get in and do a lot of fine-tuning of their queries and I'd say less than 1%, actually take advantage of that functionality. So I think as we evolve and those tools do surface, you're still have the vast majority of people happy with the result that they get but it's still going to be that 1% of people that are currently using advanced search that will take advantage of the surfacing of those capabilities. But, that said, if they make it easy enough so it's more like doing something like playing around with Photoshop or some of the other graphics editors and it's intuitively obvious then we might see people gradually start gravitating towards that and taking advan-*

tage of those tools.

Justin Osmer: *There will always be the one-size-fits-all option, just based on pure market dynamics and the size of it, the head and the tail of the Web and all those other factors. To tackle the head and to get most of the queries that everybody, Joe average person, is looking for you'll need to have a simplified version or potentially, what's available now, as a search experience, what people have come to expect. And I think we all, in the industry, agree that Owhere we are today is great but it's been a little stale for awhile and being able to level that up a bit and make some major inroads in improvements there, is something that we're definitely on the verge of doing. And it may start as some sort of opt in option or maybe it's just the separate website or a separate engine that's doing that. Or maybe, at some point, it becomes just a toggle between two different ones, so it brings up live.com and you get to pick what engine you want, the turbocharged version or do you want a slimmed down version? The challenge has always been when you're talking about the early adopters and the real technical elite and the heavy searchers, a lot of those folks would love to use that but, in the grand scheme of things, it's a pretty small portion of the population.*

Greg Sterling: *I would point to the iGoogle home page and classic Google as validation of that point. I think that the Yahoo homepage becoming personalized but I think that Google in particular has bifurcated its search experience. They claim iGoogle, which is a version of personalization because you set up all the feeds and widgets and gadgets and so on. It's the fastest growing product they've got there. Now the real numbers are going to be miniscule compared to classic Google so I think you are right that there is some kind of segmentation that may emerge where you have a class of power users that take full advantage of a bunch of tools and you have those who use the defaults and don't do much in the way of interacting with the engines*

Will search go mobile in three years?

Nobody disputes the potential of mobile search. The question seems to be whether search will move to the mobile platform in a meaningful way in the next three years. Interestingly, there were more than a few references to the iPhone as the current standard in mobile computing.

Chris Sherman: *I don't think we're going to see a wholesale migration, I think it's going to be very similar to what we have in other types of devices. We started with radio, with the box, and everyone sat around in the living room and then when the car was invented we suddenly had mobile radio. It's really the same thing, it's just being used in different places, depending on where we're going. I think there's ultimately going to be a hard-core of users, much like Blackberry users are today, that will shift their focus from the desktop to the mobile device but just inherently in the size of most mobile devices there's a lot of restrictions. Even the iPhone is, as good as webpage rendering is on that, it's still tiny. And I think a lot of people just aren't going to be comfortable using that interface as a primary way that they access the Web.*

Larry Cornett: *I think we've already had some pretty decent success that you've seen, with our OneSearch experience on the phone. I think that what's nice about where that's going is that it's actually thinking about how do I structure this information so that it's easy to interact with and consume on a small screen device. I have an iPhone and even with the iPhone, with a much larger screen, it's a great experience but you still don't want a full webpage. It's not that fun to play with and try to zoom around and scroll. So when you look at these experiences that are tailored for a mobile service, it's a much different kind of experience and you really have to take into consideration*

the smaller footprint and the display surface. And what is the most critical information to be given to the user for that time and probably most critical is to realize and to be very serious about the fact, this person for a phone and there's a reason they're doing on a phone. They're not sitting in their office in front of a laptop and deciding to consume this experience on the phone just for the heck of it. They're most likely out and about and what are the needs of someone is using a phone? This goes back to the intent, when you know somebody's accessing your service through a mobile device, taking that into consideration when you're thinking about intent and what you should be bringing back for those searches...(for example)... using GPS so that it's trying to help you with that, so understanding where you are and bringing that context to a local search is hugely beneficial.

Justin Osmer: *And mobile is just going to get bigger, including voice-enabled search, so you'll be able to just talk into the phone, "Starbucks coffee" and it will know what corner you're making that query from and will give you results in a radius around you to get to that information...In my mind I think of the comparison to broadband. It seems like just within the last three to five years broadband is really taken off so that's enabled a whole lot of great web applications and websites and companies to really ramp-up their online capabilities and customers are able to get a very immersive, exciting experience because of that. I think you're going to see a similar ramp-up with mobile carriers, not only with the networks themselves as they upgrade and update, but also with the devices. I think there's still a ways to go with the devices and they're only getting better. The iPhone is a great example. I was playing with that at the Apple store this weekend. I just bumped into a guy here at the cafeteria who had one. I think the devices themselves and being able to navigate through the web and being able to pull up information in a super intuitive, quick and easy way is absolutely going to start to take off and I think there will be a point, and this probably won't happen*

within three years, but I would imagine in 10 years from now, there will probably be more searches on a mobile or a phone device then there would be from a PC or laptop. Because just given how, especially worldwide, mobile is taking shape and more and more people are becoming reliant on them, I think it's absolutely going to transform itself here in the next few years.

Danny Sullivan feels that search just won't go mobile, it will become ubiquitous. It will start appearing in several devices, including those that come along with us:

Danny: *I think that the next big trend is that, ironically from what I just said to you, search is going to start jumping into devices. And everything is going to have a search box. But it will be appropriate. My iPod itself will have a search capability within it. And the iPhone, to some degree, maybe it will that look at how it's happening already. But I'll be able to search, access, and get information appropriate to that device within it.*

Advertising on the SERP: 2010

It took a long time to get advertising on search results page right. And then, when the engines finally did get it right it turned out that a simple text ad was the best. But that was within the context of a linear, text based presentation of results. Does that change significantly when our results suddenly include images and videos in the linear format may break up into more of a portal-based format?

Chris Sherman: *I think it just creates more opportunities for advertising. It's got to be really interesting to watch how that evolves because we started with actually a richer form of advertising, arguably, with banner ads and people learned to become blind to them. It was only once we got real simple basic text ads that that form of advertising really took off. So I think what we're going to see this experimentation and a lot of creativity around*

the different formats.

Marissa Mayer: *I think that there will be different types of advertising on the search results page. As you know, my theory is always that the ad should match the search results. So if you have text results, you have text ads, and if you have image results, you have image ads. So as the page becomes richer, the ads also need to become richer, just so that they look alive and match the page.*

That said, trust is a fundamental premise of search. Search is a learning activity. You think of Google and Ask and these other search engines as teachers. As an end user the only reason learning and teaching works, the only way it works, is when you trust your teacher. You know you're getting the best information because it's the best information, not because they have an agenda to mislead you or to make more money or to push you somewhere because of their own agenda. So while I do think the ads will look different, they will look different in format, or they may look different in placement, I think our commitment to calling out very strongly where we have a monetary incentive and we may be biased will remain. Our one promise on our search results page, and that will stand, is that we clearly mark the ads. It's very important to us that the users know what the ads are because it's the disclosure of that bias, that ultimately builds the trust which is paramount to search them

Justin Osmer: *For us, it's going to be about making sure that people understand that the majority of the page, if you look at the page real estate, at least 75% of that will be the organic, and making sure that's clear to people. For the sponsored links, I think that those are going to evolve in time as well. It's certainly been proven out of the marketplace that there's a lot of money to be made there and a lot of companies have become reliant on the text linked ads. As the search page becomes more robust and, potentially, more populated with graphics or a more rich experience, I think that the ads will maybe need to raise up and match that in some respects. So that there may be a time where*

you see, and I don't know if this will be in three years, where you see small little banner ads or other things that are off to the side that start to replace the text links, just so they can continue to carry some weight on the page. Because I would imagine if you get to the point where you ever really great search experience but the ads are hard to see, the advertisers aren't going to be very happy with you

Danny Sullivan: *I guess the concern might be if the natural results are getting better and better why would someone want to click on the ads anyway? Maybe people will reassess the paid results and some people will come through and say that paid search results are a form of search data base as well. So we're going to call them classifieds or we're going to call them ads, we're going to move them right into the linear display. You know there'll be issues, because at least in the US, you have the FCC guidelines that say that you should really keep them segregated. So if you don't highlight them or blend them in some way, you might run into some regulatory problems. But then again, maybe those rules might start to change as the search innovation starts to change, and go with it from there.*

Michael Ferguson: *It puts increased relevance pressure on the advertising because, however that advertising is expressed, and it might not just be text ads in the future as far as optimization or buying, it puts relevance pressure on the advertising because they are increasingly being presented in a more varied experience with competing routes for users to take. I think that is good for end users and good for advertisers and I think that search marketers are going to become much more, to my mind, in demand and sophisticated quickly because this is going to drive the need to coordinate a campaign across how you might present something with video, how you might present something with audio and images to fulfill the advertising opportunities that are going to come with these more rich pages. Another thing that we are seeing is more*

and more content is actually going to be surfaced onto the results page when there is high confidence that is relevant. there might be a time you might see people advertising and providing content not just on web pages and blogs etc. but with short discrete self-contained video answers and audio answers that come up either as sponsored or relevant content. So you might have a breaking down of search marketing that takes some of the things that have been learned like optimization and designing good text ads and seeing how that would work when you're delivering an audio 20 second pitch or delivering an audio content that drives traffic to your site.

Do richer visual ads equal banner blindness?

Of course, anyone who's done eye tracking studies on web pages know that banner blindness is a common occurrence when graphics and text are mixed. If this is where the search engines are going with their results page, what will that mean for graphic ads? We'll we just see banner blindness once again rear its ugly head on the search results page?

Jakob Nielsen: *If they put up display ads, then they will start training people to exhibit more banner blindness, which will also cause them to not look at other types of multimedia on the page. So as long as the page is very clean and the only ads are the text ads that are keyword driven, then I think that putting pictures and probably even videos on there actually work well. The problem of course is they are inherently a more two dimensional media form, and video is 3 dimensional, because it's two dimensional – graphic, and the third dimension is time, so they become more difficult to process in this linear type of scanned document "down the page" type of pattern. But on the other hand people can process images faster, with just one fixation and you can "grok" a lot of what's in an image, so I think that if they can keep the pages clean, then it will be incorporated in peoples scanning pattern a little bit more. If there starts becom-*

ing too many images, then we start seeing the obstacle course behavior. People scan around the images, as they do on a lot of corporate websites, where the images tend to be stock photos of glamour models that are irrelevant to what the user's there for. And then people involve behavior where they look around the images which is very contrary to first principals of perceptual psychology type of predicting which would be that the images would be attractive. Images turn out to be repelling if people start feeling like they are irrelevant. It's a similar effect to banner blindness. If there's any type of design element that people start perceiving as being irrelevant to their needs, then they will start to avoid that design element.

What might personalization means for the future of advertising on the search results page?

Just in the last few weeks Google has announced that the very basic form of personalization will start impacting the ads you see on the search results page. As search engine's embrace personalization more fully, how might this impact the presentation of ads? Obviously, they could be used to increase the relevancy of the ads to an individual but it may also impact the format of the ad served to a user, based on their identified preferences.

Chris Sherman: *You're going to see the work that they're doing in personalization of search results is very applicable to what could be happening with advertising. Where they monitor, here's are an array of different ad formats, from simple text links to maybe a graphic ad to potentially a video ad, and, I think, over time, as they get to know you and your preferences, you know..."I never click on that video ad", they'll gradually stop showing you ads in that format and maybe increase the ads in the format that you do click on.*

Larry Cornett: *They'd (the advertisers) love actually to be more targeted with what they're presenting and, very similar to what we're trying to solve in understanding query intent, this also has a huge*

impact for search marketing. So the more they understand about what a specific user is looking for in their context, the more intelligent they can be about what they're actually offering the user in terms of those sponsored experiences. So I think it will allow you to be a lot more targeted with what you're offering to a user and by being more targeted it will add more value for the users and hopefully, be a better experience for them as well.

But when does that better experience become a reality? Personalization of advertising will happen incrementally and the ability to target accurately will improve over time. For many users, it will be a mixed environment, with some very well targeted, relevant ads in some locations that don't even look like advertising and the more typical forms of untargeted advertising we're more familiar with. Cornett sees this as a possible differentiation point for engines and networks in the future:

Larry Cornett: *I think what that's going to do is make it quite clear to the consumers where the value is for them. I think that's got to be a differentiation for people. Do they really want to spend time in the context where they're seeing a lot of stuff that's not targeted and not appropriate and might even be annoying or would they rather spend time in an environment where it seems like it could be beneficial for them. I think that's going to be something that naturally comes out as a differentiation.*

Michael Ferguson: *I think that the other facet of this that might evolve is that, over time, this might be a function of personalized search. You might find one aggregated group of people is really getting your message and you are getting good conversions because they're really responding to text based ads while another group who might do the same search with the same user intent, with the same semantic map as you have talked about, they might respond to an audio message or video message. There is going to be I think a nice expansion of the sophistication and the types of opportu-*

nities that are available for search marketers.

How will our interaction with the page change?

Obviously there are different opinions of what the search engine page might look like in 2010 correspondingly there are different opinions about what the user experience might be on the results page as well.

Marissa Mayer: *I think as the results formats becomes much more heterogeneous, we're going to have a more condensed presentation that allows for better random access. So, above the fold being really full of content, some text, some audio, some video, maybe even playing in place, and you see what grabs your attention, and pulls you in. But it's almost like random access on the front page of the New York Times, where am I more drawn to the picture, or the chart, or this piece of content down here? What am I drawn to? So the eyes follow and they just read and scan in a linear order, where when you start interweaving charts and pictures and text, people's eyes can jump around more, and they can gravitate towards the medium that they understand best.*

Ironically, Danny uses Google as the reference point for a linear presentation when he compares them against Ask's 3DSearch model:

Danny Sullivan: *When I look at the blended search, Google's approach is, well, we've got to stay linear, we've got to keep it all in there. That's where people are expecting the stuff and so we're going to go that way. Ask's approach is we're going to be putting it all over the place on the page and we've got the split, really nice interface. And I agree with them. And of course Walt Mossberg wrote that review where he said 'oh they're so much nicer, they look so much cleaner', and that's great, except that he's a sophisticated person, I'm a sophisticated*

person, you're a sophisticated person, we search all the time. We look at that sort of stuff. A typical person might just ignore it; it might just continue to be eye candy that they don't even notice. And that is the big huge gamble that is going on between these two sorts of players and then yet again it might not be a gamble because when you talk to Jim Lanzone, he's like 'I tested these, this is what our people do', and his people might be different from the Google people. Google has got a lot more new people that come over there that are like, 'I just want to do a search, show me some things, where's the ten links? I'm done!'

Michael Ferguson: *We do know that there are some of the basics that we have seen before: users starting in the upper left with the sponsored and organic results are still a facet of how we present the results and that informed our decision to make the search results the core of the page and then compliment the search results with both aids to expression in the left column and then relevant content across the top and then the side. So that's in play. This is why we ended up having the confidence to launch Ask3D as our default experience, we do know that the stuff being off to the side doesn't interfere with their consumption of the search results and that they do notice the variance, the different types of content that we present. I think in large part that's because there are some visual aspects to them, sometimes graphical, sometimes images, sometimes a video, so we are changing how people are looking at the page. There is still that core, that need of typing in something and then reviewing the links and making a click.*

Where will the innovation come from?

We all agree there will be innovation happening on the search results page in the next three years. In the last few months a surprising amount of this has come from the large players, Google, Yahoo and Microsoft. Perhaps the boldest innovator has been Ask with their introduction of search 3D. As the search interface goes through further evolution

and possibly even revolution who will be driving this innovation?

Chris Sherman: *I think we're going to see it see far more from Ask than any of the other major players. You know, I've always thought of Ask is being sort of the Apple of the search world. You know, they've got this really cool technology. In many ways you can argue that it's actually works way better than their competitors in some respects and yet it's a very, very small but loyal user base. And we've see Apple do this kind of innovation continuously with the Macintosh and now, of course, with the iPod and the iPhone and that sort of thing, and with their computers, at least, they still really aren't gaining any market share, but it's enough and they can afford to take those risk, because there are good at it. So I think Ask is in very similar position and I think they're going to really be in the lead with most of these innovations. That said, I think Yahoo is in a real transition point as well and I've seen them, in the past, be willing to take risks on the user interface front so it will be interesting to see, now that Jerry Yang is back at the helm of the company, whether or not they'll see if they can take the lead in making innovation as well. It will be really interesting to see. And even Microsoft, if you look at some of the stuff they've done, for example, their image search. For awhile they have that endless scroll of images, which I thought was brilliant, and the ability to resize the thumbnails which you see.*

You'll notice that Chris conspicuously left one name off his list of possible innovators, Google. I called him on this:

Chris: *I just think that they are going to be the most cautious of all the players because, first of all, that kind of clean, Spartan, sparse layout has been almost religion for them from day one. It's part of the reason why Google is so attractive people when it first emerged in the late 90s. That's like Apple moving away from, okay you can get the Macintosh, but it has to be white. I think one of the*

ones that they did recently silver or black or something, but it's that whole idea of spare design is almost really like religion. So Google is in that kind of position and they will be by far the most conservative of all the major players.

Danny Sullivan has his own take on the Ask/Google rivalry and Google's dilemma:

Danny: *I tend to look perhaps more kindly on what Google is doing, than some people who try to measure them up against Ask because I understand that they deal with a lot more people than Ask, and they have to be much more conservative than what Ask is doing. And I think that what's going to happen is those two are going to approach closer together. The advantage, of course, Jim (Lanzone) has over at Ask is that he doesn't have ads in that column so he's got that whole column he can make use of, and it is useful, and it is a nice sort of place to tuck it in there.*

Larry Cornett: *The search engines (are) feeling a little more freedom to experiment with the search experience and with the design of that search page, which I find it refreshing. It hasn't been that for a long time, and now pretty much every search engine is a feeling a little more freedom to essentially stretch their wings a bit and try some different experiences.*

I then asked Larry why we seem to have seen this burst of innovation in the last few months:

Larry: *Some of it might just be that it took some time for the quality of the search experience to get to a certain point that it's become commodity. I think you see a lot of that in a lot of industries where there's a lot of work just to get to an experience where we have actually reached a certain bar and we were actually deliver a great results to users, so what is the next thing? We could all continue to tweak and evolve how do we present better results to users but then, what is the next big thing?*

And what about Ask themselves? What is the strategy behind their pushing the innovation envelope? Michael Ferguson believes it's all about brand differentiation:

Michael: *I think that more and more of the experiences of brand will have to have to do with the search results page as opposed to thinking of the home page. Over time, different engines' brands have largely been associated with the home page. But really from a business model standpoint, there are so many different contexts that people are experiencing the search results pages now...you have screens that are increasingly getting larger and increasingly getting smaller and more mobile etc. and you're going to want as a brand, any of the search engines, you're going to want an experience that is consistent across those — that has a flavor. The days are over when all the pages from all the engines look the same, the ten blue links and that's why we felt so confident in asserting the Ask3D view there because we knew that people were ready for that. There are also other business reasons...more and more with large screens I'm seeing people in social situations, surfing and searching together, so again that is another opportunity for us and for others to think about what does the search results page say about your brand and about your unique experience and features.*

We talked earlier about Google potentially creating two flavors of Google, one for power users and Google base for the average user. Theoretically, this gives Google the ability to be bolder with innovation on the elite property without risking jarring or alienating a huge base of users, and take the winners from that test bed and move them into Google Basic. Greg Sterling and I mused about that theory:

Greg: *I think that... that is a good thesis and it does (get Google out of their innovator's dilemma) to a degree. They can create these separate tracks for the power user and roll out some of those well tested and adopted features to the broader group*

more gradually. I think one of the reasons why universal search does not look like much of a change is for that very reason you have just described ...Ask could go much farther because they have less to lose. They need to take risks and obviously because of their position. Google has a tremendous amount to lose as you point outso I do think that that is an interesting solution in some ways to the Innovators dilemma ...so I would agree with that.

The convergence of search and entertainment

Increasingly, the lines between all our screens are becoming blurred. We watched on the likelihood of search and going mobile in a significantly in the next three years. The other area of convergence is between our TV screens and our computer screen. Will search open up new world of entertainment for us in the next three years?

Chris Sherman: *It's a huge opportunity for re-search because right now, it basically sucks. You got TiVo and that's "searchable" but not really and not on a minute by minute or keyword phrase sort of level. In terms of really integrating with a music collection...I would love to have a search that could help me pinpoint the various... I've got 10,000 songs on my iPod and it's absurd. There's very little out there that can help with that and is primarily my fault, it's not the search tools themselves are poor, it's that with that kind of quantity of information or entertainment available to me, I can't remember everything that I've got. So I think there's a huge opportunity there.*

An opportunity perhaps, but Chris is not overly optimistic about the search engine's ability to become more "human" in indexing our entertainment options:

Chris: *The problem is that kind of stuff will work well if you have an audio soundtrack that's relatively straightforward and is maybe more of a documentary, factual type of information. Where*

it's really going to have a problem is interpreting things like body language in drama, or themes like irony or parody. Those are human things that are almost impossible without lots and lots of experience as a human being living and interacting with other people...how is a computer going to figure that out? That's a huge challenge in my mind.

Bold predictions for the future

Without exception almost all our respondents felt frustrated by the limitations of a three-year timeline. It's difficult to rein in your enthusiasm for where search might go and keep it corralled in a fairly restrictive three-year horizon. So each step beyond the boundary imposed on them by the and speculated on what search might become in the future. Chris Sherman brought up the concept of the Star Trek computer often trotted out by Craig Silverstein from Google.

Chris: *But I think as we look much farther down I think the search results page ultimately might even go away. We might not have what we consider to be results in the sense that we know them today. . We've had Craig Silverstein and Sergey Brin and all those guys from Google currently talking about how they love to turn Google into the computer on Star Trek and I think part of that is obviously the intelligence that they're trying to build into a but the other very obvious part is people on Star Trek talked to the computer and the computer talked back to the. They don't interact with it in a way that we interact with Google today. It's a totally different experience.*

Meanwhile, another movie was on the mind of Marissa Mayer; Minority Report. She's wondering what multi-touch displays might do for search in the far-off distant future.

Marissa: *I ran into [Jeff Han](#) both of the past years at TED. Basically he was doing multi-touch before they did it on the iPhone on a giant wall sized screen, so it actually does look a lot like Minority*

report, it was this big space where you could interact, you could annotate, you could do all those things.

A few people mentioned a particular area of interest for me (okay, maybe I prompted them a little) and that's bringing search functionality to a virtual world interface. At some point in the future will our online interface look very much like the real world, with search allowing us to navigate virtually and instantly from one place to another?

Chris Sherman: *Absolutely, that whole idea of creating sort of a virtual world, if you will, I think it's fascinating. There is EveryScape.com, which blew me away. They're stitching together images of San Francisco, of Union Square, in much the way the PhotoSynth does. It's just remarkable, it's the closest thing to an immersion experience that I've seen yet on the web and they're planning on doing this for other locations. So basically you can walk into buildings, you mouse over and it tells you what it is, it's really, really cool.*

One of the coolest things I've seen in the past little while is the demo of [Microsoft's table top computer](#), which takes advantage of the multi touch capabilities that Marissa is referring to demonstrated by Jeff Han.

Justin Osmer: *That's going to be a great product. I think you'll first see that on the enterprise side before you see consumers snatching those things up. It makes a perfect scenario in my mind for the hotel lobby. You know the hotel concierge is going to be like the Maytag man here pretty quickly because you'll be able to sit down at the table and map out your whole itinerary for the trip, be able to read the news from local paper and it will all be right there on that table top in the lobby or potentially even in your room at some point. So I think that's a really fascinating technology and it's very exciting.*

Danny Sullivan: *Windows Media Center, when I*

first got that in 2005, I said, this is amazing, because it's basically got TV search built into it. I do the search and then of course, it allows me to subscribe to the program, and records the program, and knows when the next ones are coming up. And it makes so much more sense for that search to be in that device than it did for me to have it elsewhere. I use it all the time, when I want to know when a programs on, I don't have to find where the TV listings are on the web, I just walk over to my computer and do a TV listing search from Media Center player. So I think we're going to have many more devices that are internet enabled, and there's going to be reasons why you want to do searches with them, to find stuff for them in particular. That's going to be the new future of search and search growth will come into it. And in terms of what that means to the search marketer, I think it's going to be crucial to understand that these are going to be new growth areas.

Jakob Nielsen was probably the most cautious of all, believing that big advances in improving relevancy are at least a decade or two away:

Jakob: *I think if you look very far ahead, 10, 20, 30 years, then I think there can be a lot of things happening in terms of natural language understanding and making the computer more clever than it is now. If we get to that level, then it may be possible to have the computer better guess at what each person needs without the person having to say anything, but I think right now, it is very difficult. The main attempt at personalization on the web is Amazon.com. They know so much about the user because they know what you've bought which is a stronger signal of interest than if you had just searched for something. You search for a lot of things that you may never actually want, but actually paying money; that's a very, very strong signal of interest. Take myself, for example. I'm a very loyal shopper of Amazon. I've bought several hundred things from them and despite that they rarely recommend successfully. Sometimes they recommend things I already have. I just didn't buy it*

The Eye Tracking Study

With the changes that have been occurring with the search results page over the past 6 months, including the introduction of Ask 3D, Google's Universal and Personalized search and the indication that major change will soon also be happening on Yahoo! and Live, the question at the top of our minds was how this would impact the user experience? Would we scan these new, richer pages differently than we scanned the more linear, more homogeneous pages we're used to? And how would we interact with the sponsored listings on the page? As you could see from our interviews with our expert panel, there seemed to be some speculation on this question in their minds as well. They discussed a less static, less condensed scan pattern, where the eye was drawn to different types of information presented in different ways.

Our previous eye tracking studies have largely defined the user experience with the existing results page. In study after study, we saw the same behaviors exhibited: The Golden Triangle, The F-shaped Scan pattern, the definition of a consideration set of 3 or 4 listings, at the top of the page, from which we usually select the listing that appeared to offer the highest degree of relevance to our question, the orientation at the top left corner than the linear scan down the left page, scanning across titles when they caught our attention with information scent. Given the potential diversity in every single search we launch, the amount of consistency that emerged across hundreds of searchers and thousands of searches was remarkable. But given the introduction of several new stimuli in new formats, we suspected this would change, so we decided to put it to the test.

Of course, trying to conduct an eye tracking test on what search might be in the future, especially something like personalization, introduces some unique challenges. First, while we have Google's version of what personalization looks like now, it's a tepid introduction of personalization at best and will almost certainly not look like this a few years from now. As we sat around with our research and

usability team, discussing the challenge, a plan started to formulate. Why not ask the smartest people we can think of, people that are responsible for defining the user experience at the major engines and observers that have been watching the search experience for years, what they see happening in the future. Then why don't we combine this wisdom, together with our views (being no slouches ourselves when it comes to understanding search behavior) and mock up what a search results page might look like in 2010? Then, we can put it to the test.

Of course, coming up with a design is only one part of the challenge. For personalization to be simulated, we had to have a panel where we could track clickstream behavior and use it to tailor personalized results based on their past behavior. This was not a study that leant itself to our typical panel based approach. We had to approach it in two stages, by giving participants an area of interest, signing them into a generic Google web history account and then gathering the click stream data from this first session to customize a results set for a given scenario that was presented in a second session. Because of the high degree of commitment on the part of the participants, we decided to tap into our circle of family and friends for this study.

Another challenge was in determining where we wanted to take a snapshot of the results page to test against. The first one was fairly easy. We wanted to see what the inclusion of different types of results, especially images, might do to scan patterns as they start to show up in blended search results. Jakob Nielsen talked about the potential of banner blindness and obstacle course navigation behavior if too many images of questionable relevancy were included on the page. Our theory was actually the opposite. We believed that images, especially relevant ones, might significantly affect the initial orientation points. The upper left orientation is a major contributing factor to the F shaped scan pattern which leads to the formation

of the Golden Triangle. What might happen if this orientation point starts to move around the page?

We already had a pretty strong baseline. We knew, in specific detail, how users interacted with a more basic search results page. Testing Universal search should be relatively easy. We found a few topic areas that produced reasonably rich Universal sets of results and tracked the sessions on our Tobii eye tracker.

Personalization proved to be a bigger challenge. We didn't believe it would be particularly useful or interesting to test personalization as it's currently being implemented. We wanted to test a version of personalization that would be more confidently presented, tying in both organic and sponsored results. And this is where it got interesting!

First, we stayed with the linear format typical of Google today, but stepped up the level in personalization on the page. We believe this could represent personalization on Google in a year or so. We personalized 3 organic listings on the page (positions 3, 4 and 5) as well as one sponsored location (top sponsored position 2). We made an arbitrary call that Google wouldn't be bold enough to knock out top spot in either location in the near future based on personalization signals. We selected the personalized results, both organic and sponsored, based on past click streams (from the first test session). We restricted our level of personalization based on this empirical data, believing that this would be at a stage that it would be reasonable to expect Google to attain in the next 12 months.

But, to test what the search experience might be in 3 years, we had to move beyond what was safe and easily testable. This is where we really started to have fun. First of all, our Search 2010 team gathered up our thoughts and those of our expert panelists. We boiled them down into some common elements and created a prototype of what the search page might look like in 3 years. For the purpose of this test, all we could mock up was the actual look. We couldn't build in any functionality. But we felt this would be ade-

quate, given that we wanted to see how the eye navigated around the page anyway.

For personalization, we assumed a much more confident algorithm in 3 years. All the organic results were personalized, presented both from historic click-stream data and also new sites that came from similarity to previous sites that had been visited and also our knowledge (remember, these are our family and friends) of what the participant may find interesting. We also personalized one of the top sponsored results. We believe advances in personalization in the next 3 years will go beyond simple elevation of previously visited sites in the rankings to making the engines a more confident recommendation engine. We also substantially bumped up the engines ability to determine where our subjects were in the buying cycle (we set them out to research iPhones) and tailor the results accordingly.

Obviously, to test the future, we had to plunge head-first into the realms of speculation. This introduces a number of challenges into this study that were inevitable, but do have to be listed here. First, these were our friends and family, not a random sample. Secondly, because of the amount of work that had to be done and the timelines, we had to restrict our panel size to a smaller one that would be typical in a more robust study. We worked with 16 people. With the interactions with the 2010 results pages, these were not functional pages but screen shots of mock ups, so this will undoubtedly impact the scan patterns. And finally, respondents had never seen the 2010 results page prior to the test, so there was a far amount of curiosity driving their interactions. It was as if they had suddenly been fast forwarded 3 years ahead. As you'll see when you read the section on the thinking of our design, we did want to keep them in a richer but somewhat familiar experience, but it would hardly be considered representative of a searcher using this interface on an ongoing basis. But, of course, that would be impossible to test for. Even with all the challenges, we found the results fascinating and we're happy to share them with you in this report.

Chunking of page rather than F Shaped scan pattern

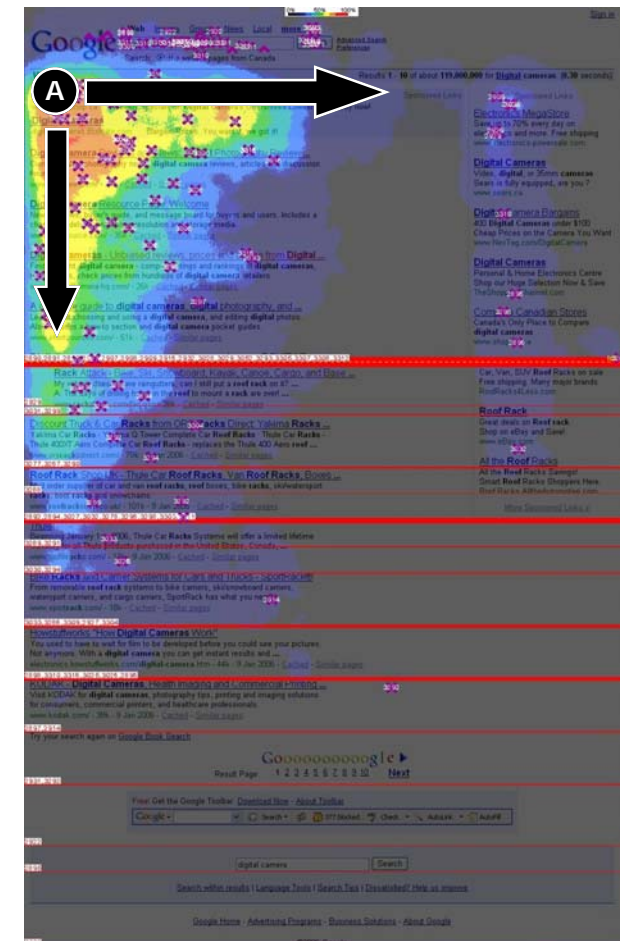
There was one fairly obvious difference we saw as soon as we compared a heat map from a typical blended result against the heat maps from a previous, pre-blended results. Our belief was that pictures would change the orientation point, leading to a distinctly different experience and this did appear to be the case.

In the pre-blended world, there was very common tendency to orient in the upper left corner (indicated by A) and to start the scanning from there, first vertically (the down arrow) and then scanning across when a title catches your attention (the right pointed arrow).

But in the blended results, you'll notice that while there still is some scanning in the very upper left (B), it doesn't appear that the scanning starts there. Instead, the orientation appeared to happen by the graphic thumbnail in the results (C), and then started from there. Scanning seems to be predominantly to the side and below (D). Could this push scanning down, moving the Golden Triangle down on the page?



Aggregate heat map from searches for "Harry Potter"



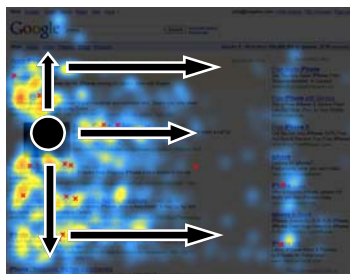
Aggregate heat map from Eye Tracking Study 2006



In fact, the presentation of a graphic element high in the results such as the image of the iPhone in the results shown at left seems to result in a mental division of the page, which we refer to as “chunking” the page. It seems we extend mental boundaries from the edges of the picture and divide the page up for further scanning. Here is the sequence of scanning that we observed when these conditions were present.

While we still seem to swing our eyes up to the upper left, we almost immediately (in under a second) move our eyes to the image (A) to determine if it's relevant. A graphic image appears to be a powerful attractor to the eye. The tendency then is to determine if the listing beside the graphic (B) is relevant and unique in some way. Our brains tell us that because this listing has a unique treatment in the listings, it should be unique in some way. This is likely because universal results is still a new concept to us. Perhaps with time, we'll become less sensitive to these listings. Regardless, at this point, we saw a tendency to scan this listing first.

Then, because we still like to scan 3 or 4 listings before making our choice, we make our choice from the “chunks” above the image (C) and below it (D). Rather than the top to bottom, left to right F shaped scan characteristics seen in the pre-blended world, we see more of an “E” shaped pattern, with the middle and first horizontal scan leg being where the image appears (see image below at left). The upper left top to bottom bias that was such a powerful factor in search behavior before seems to be lessened dramatically by the presence of an image.



Rather than an “F” shape scan pattern, we saw an “E” shaped pattern with the middle of the E being aligned with the image result.

Page "Chunking" - con't

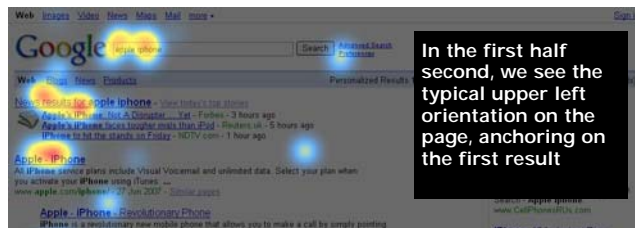
As an example of "chunking" behavior, we took two results, one where an image appeared near the top of the page (at right) and one where the image appeared below the fold, making it a non-factor in the initial interactions with the page. On the page at right, we go through the first few seconds of interactions in half second slices.



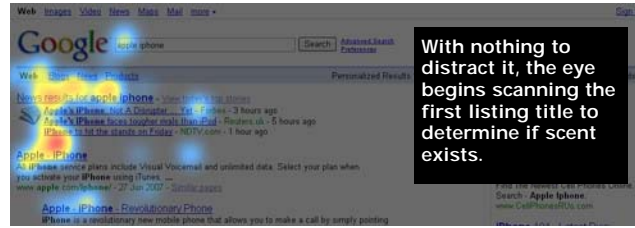
Page without a graphic result in the top listings



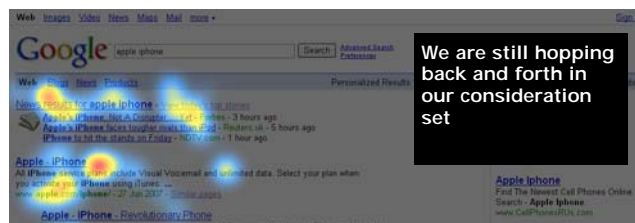
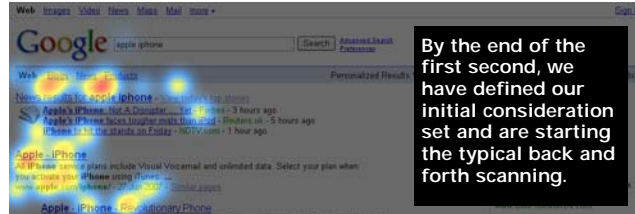
Page with a graphic result in the top listing, showing "Chunking" of page



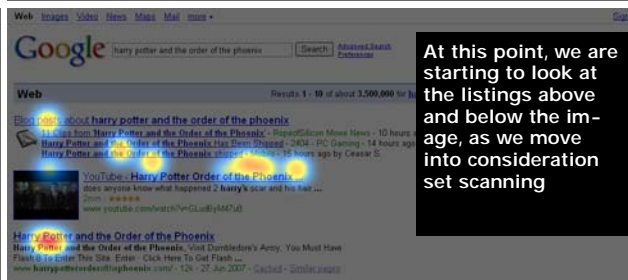
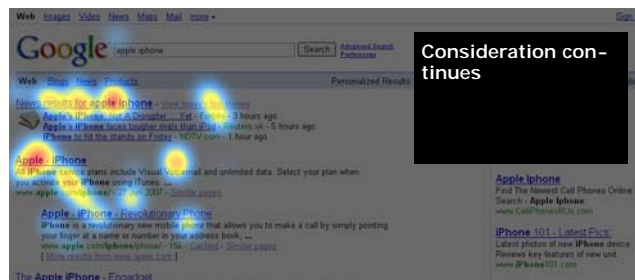
0:00:00—0:00:50



0:00:50—0:01:00



0:01:00—0:01:50

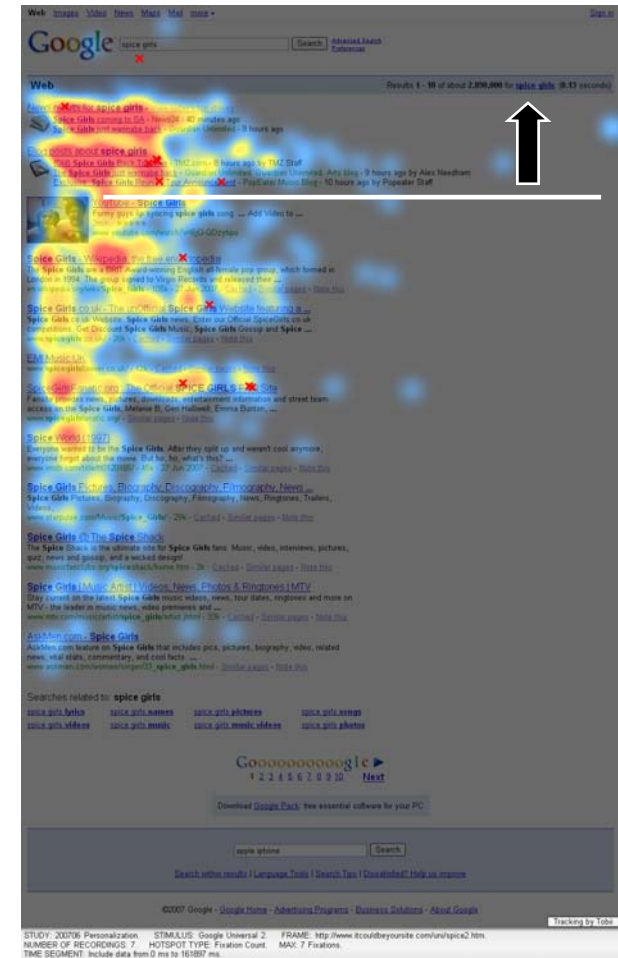
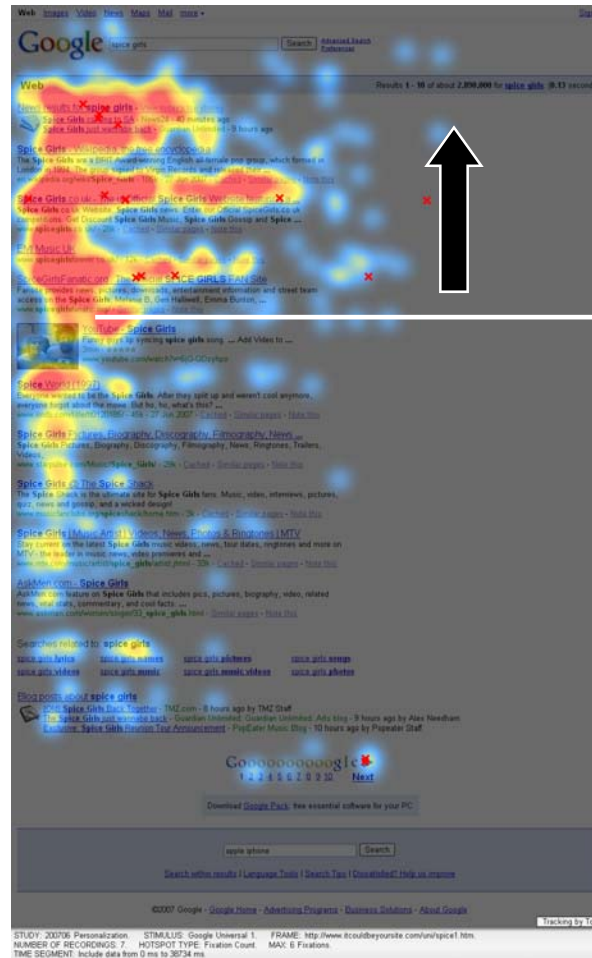


0:01:50—0:02:00

Fencing of scanning

Another common behavior we observed was the “fencing” of scanning through the presence of images or graphic elements with straight sides. It seems we like to extend these straight lines to form mental boundaries that we use to divide up the page for scanning. In addition to creating the scanning “chunks” described earlier, this also can have the effect of restricting scanning beyond the boundary. For example, look at the two heat maps to the right. In both cases, it appears the presence of an image created a “fence” that restricted scanning below it and led to greater scanning above.

This of course depends on a quick scan to determine whether greater scent exists above or below the fence. In a search results page, if there are enough listings above the fence (given that we like to have at least a few options to consider), it's natural to assume that we'll find greater relevance above than below. But the fact remains, the presence of a straight sided graphic element leads to the extension of those sides to create boundaries and once divided, we tend to determine scent of these sections as a whole, rather than scan each of the listings individually. This is the same behavior that leads us to dismiss the ads on the right side rail as a group after a quick glance at the first one, rather than scanning them individually. “Chunking” and the presence of these “fences” changes our linear scanning behavior, causing us to break the page up more.



In the examples above, we see the top edge of the image creates a “fence” that appears to restrict eye scanning below it.

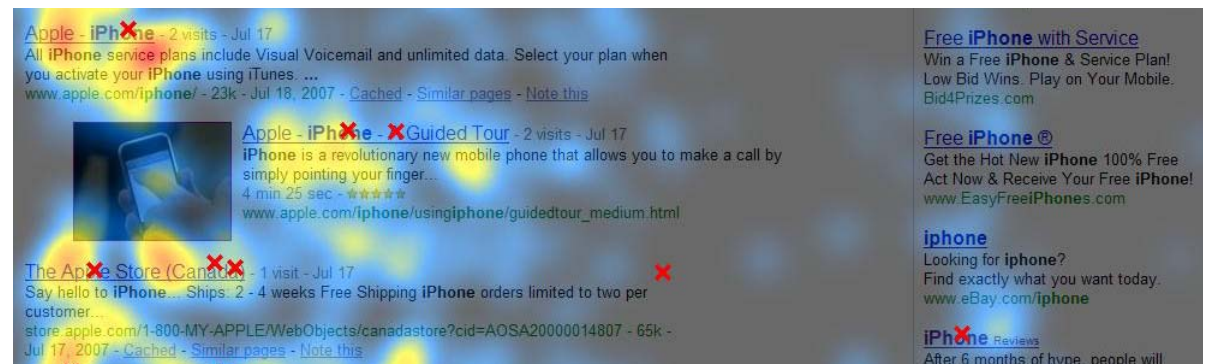
From looking at the interactions with Google's universal results set, it seems there are a couple of significant developments that could impact how we interact with search results. The presence of a graphic on the page engages us in a different manner than simply showing us text images. There are two factors at play here. First, as Jakob Nielsen pointed out, we "grok" images a lot faster. A quick glance is enough for us to determine the meaning of the image. But secondly, and probably more importantly, an image fires different parts of our brain. Reading text is a abstract, logical process, but images appeal to us at an emotional level. Recent studies have shown that although our brains process different types of information in parallel, emotional inputs are processed much quicker than rational ones. Something that touches our emotions proves to be a powerful attractor for the eye.

However, just being an image is not enough. It also has to offer information scent. The image has to be relevant to our intent. And, because it is an image, we can determine relevance very quickly. We can make an assessment of both relevance and attractiveness of an image in a split second and determine if it's worthy of our attention. If it passes than test, than we will reward it with a more deliberate scanning. For example, look at the two examples at right.

Images prove to impact scanning more in the earlier stages of the interaction, by attracting the eye and by doing so, creating a different scanning pattern. We never see a lot of heat on the image, because we don't have to spend a lot of time to understand it, but we do see images exerting powerful pull on the eye.



We can determine relevance fairly quickly and if an image proves to be irrelevant, we quickly move on. For example, in the heatmap above, a query for "spice girls" (don't judge us by the scenarios we use!) brought up a YouTube parody clip that proved much less relevant than the listings above and below it. Although the image caught



Compare this with the results for Apple's iPhone. In this case, the image does prove to be relevant and attracts attention. This leads to scanning, and more importantly, early scanning of the result adjacent to the image.

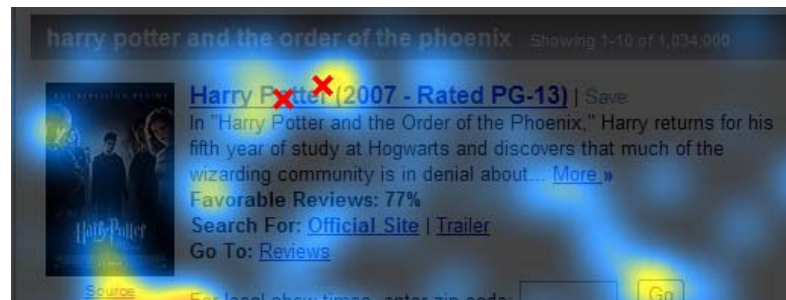
Fencing of Scanning on Ask

Ask has been the most aggressive of all the engines in showing blended results, in a non linear, 3 column layout. This marks a fairly bold departure for Ask, breaking the existing search paradigm. The 3D layout makes heavy use of the right and left rail to provide supplemental information to the main results, which are found in the center column. There is extensive use of borders, images and icons. Early reviews are generally positive, but, as Danny Sullivan pointed out in his interview, those tend to come from sophisticated users. We decided to include some sessions with Ask in our study as well.

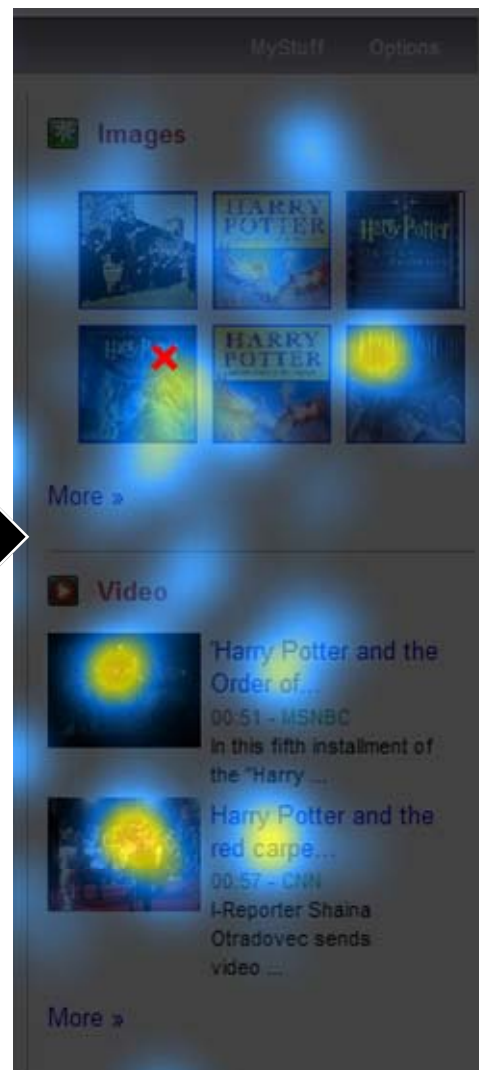
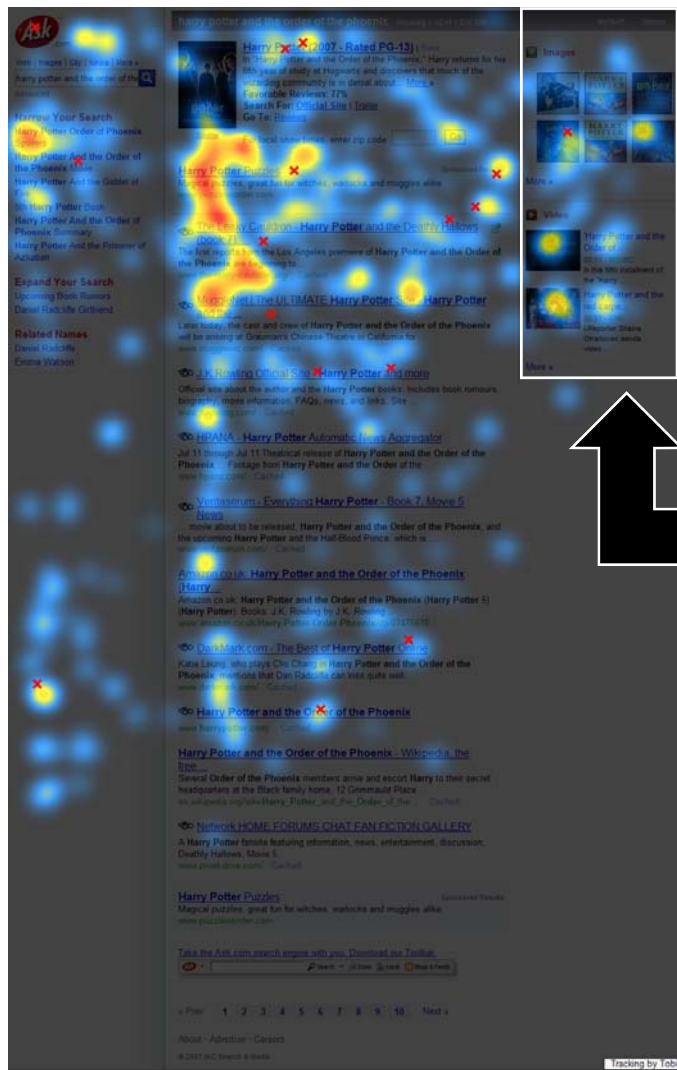


Ask did seem to do a good job of drawing the eye around the page. A number of images and icons proved to lead to a more portal like scan pattern. But even with this diversity of scan activity, we still see fencing of the scanning, coming from the image at the top and the divider bars on both sides. However, because of the rich presentation of scent on both sides, the user shows a strong tendency to "jump the fence".

Ask's top listing, which is the result for the new movie, Harry Potter and the Order of the Phoenix, is a classic example of how images impact scanning behavior.



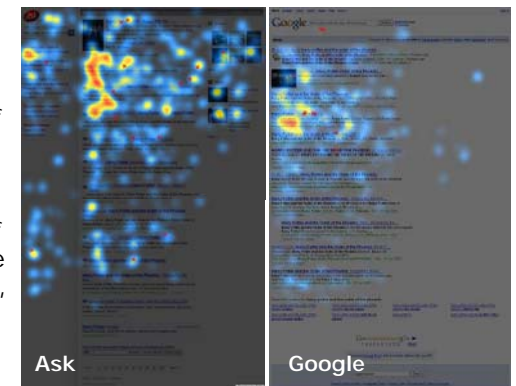
Notice that actual scanning activity with the image is minimal, but it serves to reinforce the information scent of the listing. A quick glance is all that's needed to determine it is relevant and probably interesting. Also, when faces are present, they'll draw the majority of interest, especially if the faces are recognizable. The familiar Harry Potter logo also serves to reinforce scent. After this, scanning moves to the adjacent text.



Ask makes extensive use of the right rail to provide supplemental image and video results. While this did draw attention, as can be shown from the hot spots on some of the thumbnails, the majority of scanning activity was reserved for the main results in the center column.

As we move to richer results sets, the role of search as a discovery and entertainment channel will lead to a different type of interaction. Tradition thinking around search has always been that it was task based. The faster that somebody could get on and off the page, the better. But take the Ask results page shown as an example of a different type of search. With a search like "Harry Potter", are we looking for more of the multi-paned type results set that Ask provides? While the number of choices and different types of results might prove to be confusing and even annoying to someone launching a navigational search, it might prove to be exactly what the person who's in a discovery mood might be looking for.

As a point of interest, we compared the duration of visit on Ask's 3D layout with duration of visit for the same topic, "Harry Potter", on Google's linear lay-



out. There was little difference, with the average duration for both being about 25 seconds. While much longer than the average duration of a navigational search, it appears that users are able to navigate a multi-paned type presentation just as quickly as they can a linear presentation.

It was interesting to compare interactions in organic positions 3, 4 and 5, our test positions for the personalized results, in our personalized mock ups and the non-personalized sessions. These personalized results, even though we didn't move them up into the top two organic positions, performed remarkably well. The charts at the far right show both percentage of gaze time. In the heat maps to the immediate right, we show the areas being compared, the first heat map being non-personalized and the second heat map being the personalized results.

Web Images Video News Maps Mail more - Sign in

Google [Advanced Search](#) [Personalized](#)

Web Blogs News Products Personalized Results 1 - 10 of about 96,909,000 for apple iphone. (0.15 seconds)

News results for apple iphone - [View News's top stories](#)

Apple's iPhone. Not A Toy. Not A Gadget. Yet. Forbes - 3 hours ago
 Apple's iPhone. Just too good to be true. Reuters UK - 5 hours ago
 iPhone to hit the stands on Friday - NDTV.com - 1 hour ago

iPhone
 Pay Only What You Want
 Act Fast - Auction is Ending Now
[www.ebay.ca](#)

Apple iPhone
 Find The Newest Cell Phones Online
 Search - Apple iPhone
[www.CellPhonesUSA.com](#)

iPhone 101 - Latest Pics
 Latest photos of new iPhone device.
 Reviews key features of new unit.
[www.iPhone101.com](#)

The Apple iPhone - Enraged!
 Apple iPhone dock revealed: charges Bluetooth headset too? YouTube hits Apple TV today, headed for the iPhone as well. Apple announces third-party software ...
[www.engadget.com/2007/01/09/the-apple-iphone-141k](#) - [Cached](#) - [Similar pages](#)

Apple iPhone
 Hi, this is an Apple iPhone concept blog created by an Apple fan Okan Vardarova. All of these iPhone concepts are being sent by other Apple fans. ...
[appleiphone.blogspot.com/](#) - [30k](#) - [Cached](#) - [Similar pages](#)

iPhone - Wikipedia, the free encyclopedia
 The iPhone is a multimedia and Internet-enabled mobile phone by Apple. "LG Electronics Officially Accuses Apple iPhone For 'Copying' Prada", ...
[en.wikipedia.org/wiki/iPhone](#) - [140k](#) - [27 Jun 2007](#) - [Cached](#) - [Similar pages](#)

Apple iPhone news, pictures and iPhone forums - Everything iPhone
 Apple iPhone news, wallpapers and forums featuring iPhone accessories discussion.
[www.everythingiphone.com/](#) - [20k](#) - [26 Jun 2007](#) - [Cached](#) - [Similar pages](#)

Apple iPhone - Reviews, Prices and Specs
 Get detailed information about the Apple iPhone. Research before you buy a product. Retailers, Reviews, Features & Specs.
[www.mobiletech.com/handset/apple_iphone.html](#) - [247k](#) - [27 Jun 2007](#) - [Cached](#) - [Similar pages](#)

Apple iPhone (4GB) Reviews - Smart phones Reviews by CNET
 CNET's comprehensive Apple iPhone (4GB) coverage: unbiased reviews, exclusive video footage and buying guides. Compare Apple iPhone (4GB) prices, ...
[reviews.cnet.com/smart-phones/apple-iphone-4gb/4505-6452-7-32180293.html](#) - [27 Jun 2007](#) - [Similar pages](#)

Apple iPhone - The Chris Pirillo Show
 Click image to Play Video [http://live.pirillo.com/](#) - is the iPhone going to take the cell phone industry by storm, or is it going to be nothing more than ...
[chris.pirillo.com/midw/2007/06/25/apple-iphone-44k](#) - [26 Jun 2007](#) - [Cached](#) - [Similar pages](#)

YouTube - A Closer Look At The iPhone
 Apple Inc's Phil Schiller shows John Blackstone the many ... - 4 min - [in a v](#)
[www.youtube.com/watch?v=YgW7or1uFk](#)

Blog posts about apple iphone

Two Days to Apple iPhone Launch - June 29 Left - Creativity And Innovation Driving Business - 10 hours ago by Sanjay Datta
 Apple iPhone Countdown - 1 minus 100 hours - mobilejones - 14 hours ago by mobile.jones@gmail.com (mobile.jones)
 Apple iPhone Mania - Counting Down from Day 2 - PodTech.net: Technology and Entertainment Video Network - 16 hours ago by Rio Pesino

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Tracking by Tobii

STUDY: Universal STIMULUS: universal FRAME: [http://www.itcouldbeyourste.com/uniphonel.htm](#)
 NUMBER OF RECORDINGS: 16 HOTSPOT TYPE: Fixation Length (Relative) MAX: 100 %
 TIME SEGMENT: Include data from 0 ms to 55300 ms

Web Images Video News Maps Mail more - info@enquiro.com | Web History | My Account | Sign out

Google [Advanced Search](#) [Personalized](#)

Web News Video Books Products Results 1 - 10 of about 109,000,000 for iphone. (0.10 seconds)

Apple iPhone
 3 amazing products in 1 device. Widescreen iPod, phone & Internet.
[www.apple.com/iphone](#)

iPhone in Canada
 Rogers.com - Get ready for the iPhone coming to Canada soon with Rogers
[www.rogers.com](#)

Apple iPhone - 2 mins - Jul 17
 All iPhone services plans include Visual Voicemail and unlimited data. Select your plan when you activate your iPhone using iTunes. ...
[www.apple.com/iphone/](#) - [27 Jun 2007](#) - [Cached](#) - [Similar pages](#) - [Note this](#)

Apple iPhone - Guided Tour - 7 mins - Jul 17
 iPhone is a revolutionary new mobile phone that allows you to make a call by simply pointing your finger.
[www.apple.com/iphone/usingiphone/guidedtour_medium.html](#)

Free iPhone with Service
 Get the Hot New iPhone 100% Free. Act Now & Receive Your Free iPhone! Low Bid Wins. Play on Your Mobile. BidPrices.com

Free iPhone @
 Get the Hot New iPhone 100% Free. Act Now & Receive Your Free iPhone! Low Bid Wins. Play on Your Mobile. BidPrices.com

iPhone
 Looking for iPhone?
 Find exactly what you want today.
[www.ebay.com/iphone](#)

iPhone News
 After 6 months of hype, people will finally get their iPhones today.
[www.marketplace.org](#)

iPhone in Stock
 iPhone Availability 8GB 4GB iPhone
 iPhone Sale! Huge Selection iPhone in-Stock iPhones.com

iPhone Info
 Latest iPhone News & Reviews
 Is it Ready for Prime Time?
[www.totallytobii.com](#)

The Apple Store iPhone
 Say hello to iPhone. Ships 2-4 weeks Free Shipping iPhone orders limited to two per customer.
[www.apple.com/1-800-MY-APPLE/AppleStore/iphone/AppleStore/AppleStore/14807-45k](#) - [Jul 16 2007](#) - [Cached](#) - [Similar pages](#) - [Note this](#)

iphoneandmac.com
 You've been awaiting the release of Apple's iPhone. Take a deep breath. It may be hip and functional, but it isn't available in Canada.
[www.iphoneandmac.com/canadastory/RTGAM20070617-welcome/611709/Story/Technology/45k](#) - [Jul 17 2007](#) - [Cached](#) - [Similar pages](#) - [Note this](#)

Phone To Drop On Rogers Wireless
 To our dear readers north of the border: You will be getting the iPhone and it will be with Rogers. From an official Rogers rep.
[www.iphoneandmac.com/canadastory/RTGAM20070617-welcome/611709/Story/Technology/45k](#) - [Jul 17 2007](#) - [Cached](#) - [Similar pages](#) - [Note this](#)

iPhone - Wikipedia, the free encyclopedia
 The iPhone is a multimedia and Internet-enabled quad band GSM EDGE-supported mobile phone designed and sold by Apple Inc. The iPhone's functions include ...
[en.wikipedia.org/wiki/iPhone](#) - [177k](#) - [Jul 18 2007](#) - [Cached](#) - [Similar pages](#) - [Note this](#)

News results for iphone

Duke
 Duke: iPhone May Be Disrupting Network - 38 minutes ago
 A single iPhone was powerful enough to cause the problem, and there are 100 to 150 ... The iPhone is Apple's first foray into the cellular phone business. ...
[Washington Post - 52 related articles](#)
[Creating the iPhone the legal way - Salon - 32 related articles](#)
[Fun of my favorite iPhone things - Macworld - 12 related articles](#)

The Apple iPhone - Enraged!
 Yeah, we said it. "iPhone", the name the entire free world had all but unanimously christened it from the time it'd been nothing more than a twinkle in ...
[www.engadget.com/2007/01/09/the-apple-iphone-141k](#) - [Jul 18 2007](#) - [Cached](#) - [Similar pages](#) - [Note this](#)

iPhone - Blogs, Photos, Videos and more on Technorati
 Angry Bill Gates Feared by iPhone? I can put the Geste back in the bottle with the iPhone - shouted Gates in a small roar. ...
[technorati.com/tag/iPhone](#) - [Jul 18 2007](#) - [Similar pages](#) - [Note this](#)

Apple iPhone iPhone reviews, news, and new iPhone videos - CNET.com
 The long-awaited Apple iPhone has arrived at AT&T. Complete with a version of OS X, push e-mail, full Internet browsing, a 2-megapixel camera, ...
[www.cnet.com/apple/iphone.html](#) - [50k](#) - [Cached](#) - [Similar pages](#) - [Note this](#)

Image results for iphone images

1 2 3 4 5 6 7 8 9 10 [Next](#)

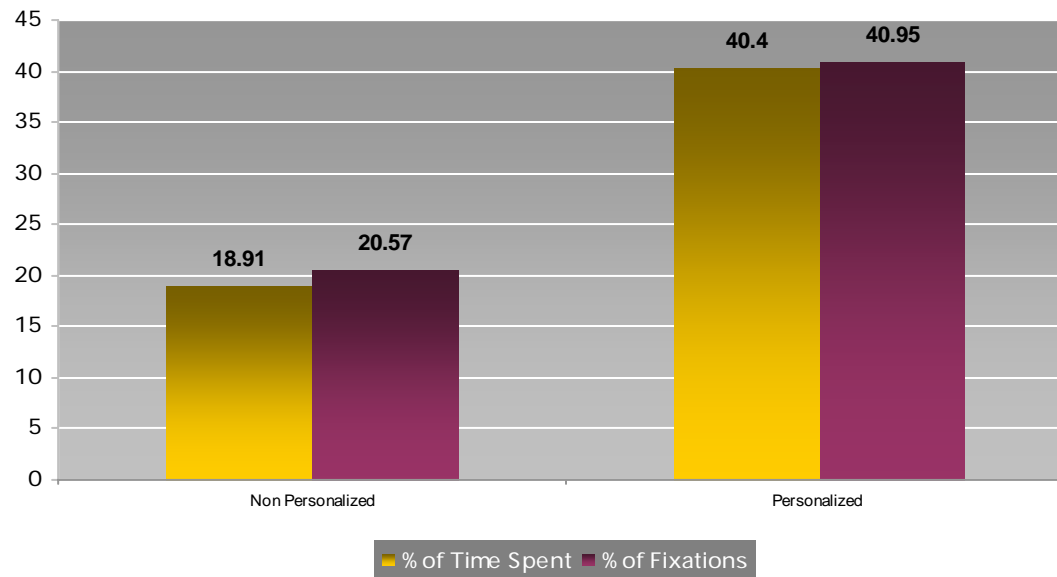
Download [Google Pack](#): free essential software for your PC

[Search within results](#) | [Language Tools](#) | [Search Tips](#) | [Unsatisfied? Help us improve](#)

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Tracking by Tobii

STUDY: aggregated personalization STIMULUS: delete FRAME: [http://www.enquiroresearch.com/2007/07/pers/iphone3-2.htm](#)
 NUMBER OF RECORDINGS: 6 HOTSPOT TYPE: Fixation Length (Relative) MAX: 100 %
 TIME SEGMENT: Include data from 0 ms to 52273 ms



Obviously, for the test positions, personalization added a strong information scent component, with performance of these three listings doubling when compared to the non-personalized results. These three listings also pulled twice as many click throughs as the top two organic listings, a dramatic difference from the non-personalized results, where listings 3, 4 and 5 drew only one third as many click throughs as listings 1 and 2.

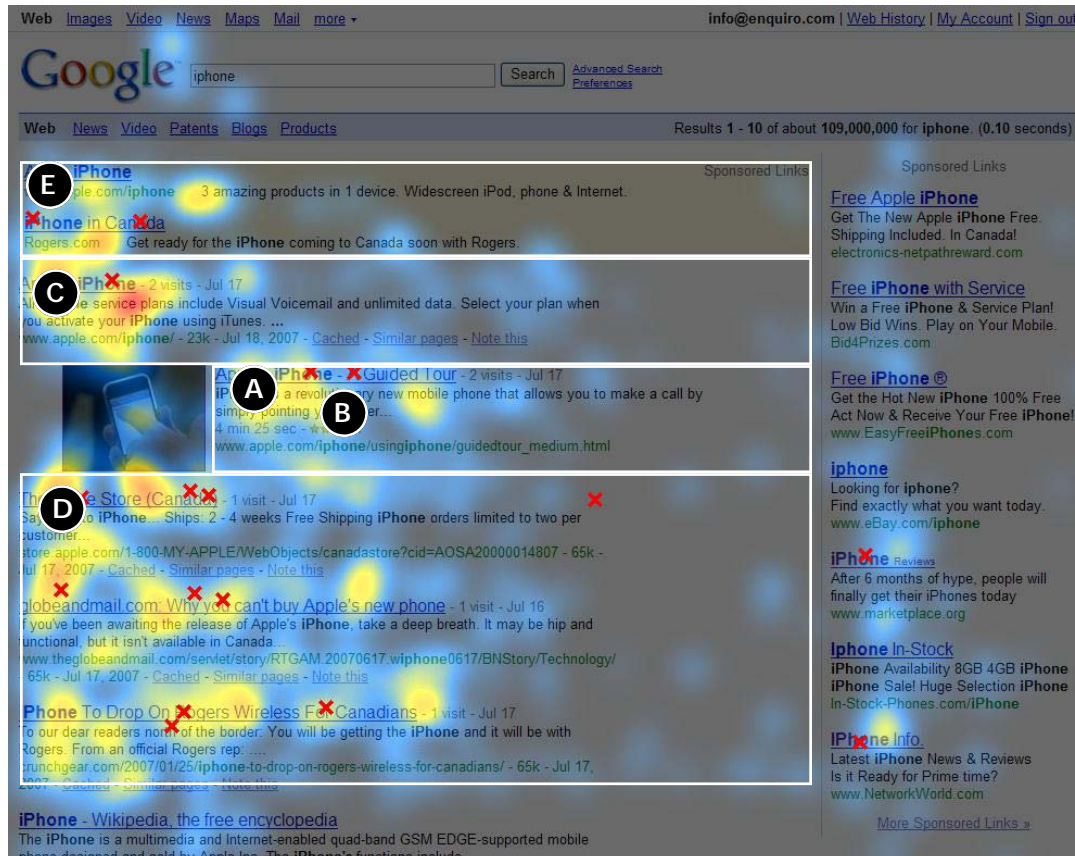
Now let's look at what happens when we combine universal search results with personalized ones. In the study, we asked participants to find out more about the Apple iPhone. While we didn't track this on our eye tracker, we did sign them into test Google accounts and tracked both their web and search history. This allowed us to see what sites they went to and to hazard a qualified guess as to what their intent might be. We cheated a little bit by doing a quick, informal survey with them afterwards to see what their next likely online actions might be. While this extends the capabilities beyond what is true with personalization today, we felt it gives us a reasonable approximation of the capabilities of personalization in the near future.

We also became a little more aggressive in how we presented personalized results on the page. We showed personalized results in 3 slots, in the number 3, 4 and 5 positions in organic. We also personalized the 2nd top sponsored location. Again, we think this gives a fair representation of the degree of personalization we might see from Google in the near future.

The results to the near right are non-personalized results from Google. The ones to the far right are our personalized results. The personalized locations are shown by the shaded box.

This screenshot shows a Google search results page for the query 'apple iphone'. The page is highly personalized, with results tailored to the user's search history and location. The search bar at the top shows 'apple iphone' and the search button. Below the search bar, there are several sections of results, including 'Web', 'Images', 'Videos', 'News', 'Maps', and 'More'. The 'Web' section is the most prominent, showing a list of search results. The first result is 'The Apple iPhone - Engadget', which is highlighted with a red 'X' and a red 'X' in the top right corner. Other results include 'Apple iPhone', 'iPhone 101 - Latest Pics', and 'iPhone 101 - Latest Pics'. The page also features a 'Download Google Pack' button and a 'Search within results' section. At the bottom, there is a 'Tracking by Tobii' notice.

This screenshot shows a Google search results page for the query 'apple iphone'. The page is non-personalized, showing a list of search results that are not tailored to the user's search history or location. The search bar at the top shows 'apple iphone' and the search button. Below the search bar, there are several sections of results, including 'Web', 'Images', 'Videos', 'News', 'Maps', and 'More'. The 'Web' section is the most prominent, showing a list of search results. The first result is 'The Apple iPhone - Engadget', which is highlighted with a red 'X' and a red 'X' in the top right corner. Other results include 'Apple iPhone', 'iPhone 101 - Latest Pics', and 'iPhone 101 - Latest Pics'. The page also features a 'Download Google Pack' button and a 'Search within results' section. At the bottom, there is a 'Tracking by Tobii' notice.



This heat map shows the effects of a combination of personalization and universal results. The natural scanning patterns that results in the Golden Triangle are disrupted with the introduction of another orientation point (the image) and the greater degree of information scent found in the personalized results. The heatmap shows how the scanning activity has been shifted down from the top of the page real estate

The combination of universal results, and personalization, at least as we've represented it, produces a very interesting scan pattern that could have some significant implications for optimum placement of messaging on the page.

Perhaps the easiest way to show this is to first look at how a typical scanning pattern would play out before the introduction of universal and personalized search results:

In the results set shown to the left, most users would orient in the upper left, just above (E). They would then start scanning down the page in a linear manner, first glancing at the top sponsored ads in Box "E", then continuing down to the organic results in Box "C". A consideration set would be chosen, likely consisting of the top two sponsored results and the top two organic ones, and the listing providing the best match of "scent" and intent would be chosen.

But let's look at how the introduction of a graphic and 3 personalized results changes the scan pattern. Now, orientation happens on the picture and on the listing title immediately adjacent to it (A), and then the listing in Box B would likely be the first scanned. After this, the user would have to choose between the listings above and below. If personalization wasn't present, we would assume the results at the top would offer greater scent, but if the personalized results benefit from personalization, this might not be the case. Attention would be drawn down (which seems to be the natural tendency of the eye) because of greater scent, present through personalization. We can see from the heat map below that the personalized results drew a significant amount of scanning attention away from the top of the page.



0:00:00—0:00:50



Let's look at the first 2 seconds of interaction in half second slices to see how the pattern is broken. The heatmaps above are from personalized/universal results and the heatmap below (also for the iPhone) is a more traditional presentation. In the first half second, we see how images and personalized results breaks the conditioned trust we have in Google's top of page relevance, seen in the example below.



0:00:50—0:01:00



In the second half second, there's a strong orientation on the graphic and scanning for scent in the three "chunks" of the page, beside, above and below. While there's still a tendency to move to top of page, it's not nearly as pronounced as we see in the bottom example, where all the scanning is top of page. With personalization and universal, we're picking up scent from throughout the page, where as in the bottom example, we trust that scent is at the top.



0:01:00—0:01:50



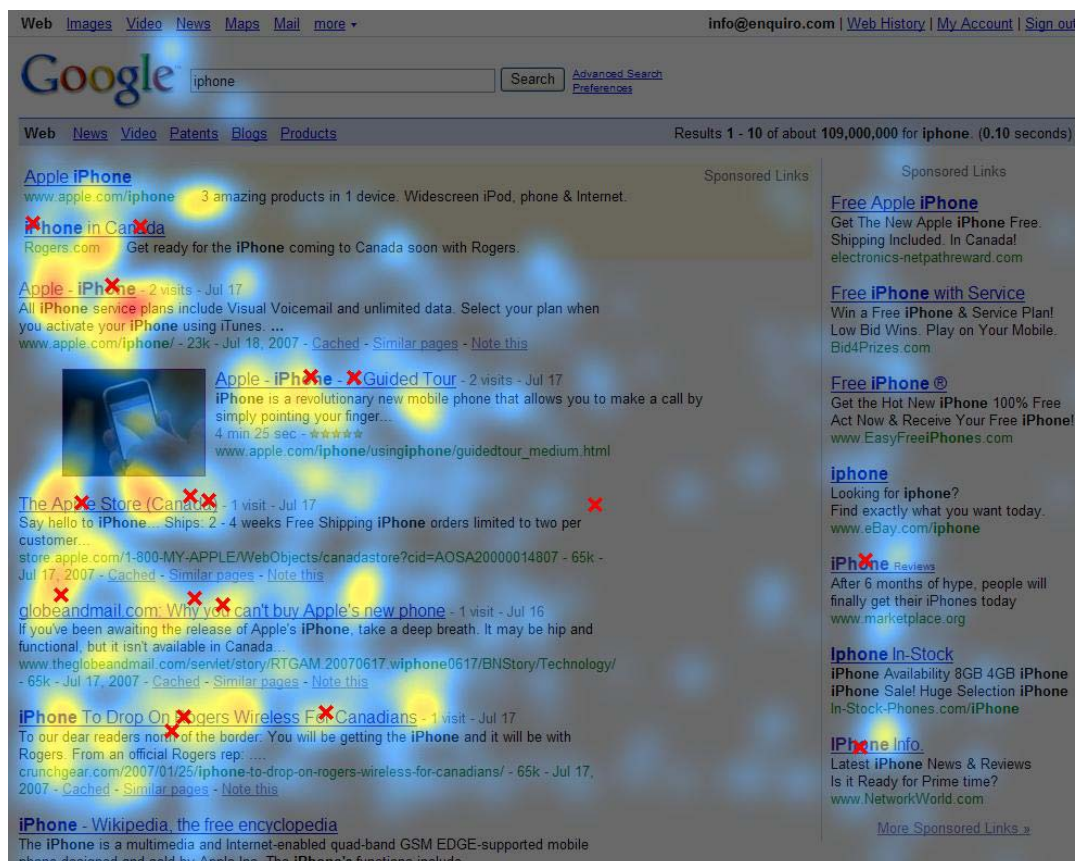
After one second in the top example, we're still covering a lot of real estate looking for scent, including above and below our initial orientation point. In the example below, we've decided on a consideration set of 3 listings at the top of the page and we're hopping back and forth to determine which offers the greatest scent.



0:01:50-0:02:00



In the top example, after 1 and a half seconds, the consideration set is much broader, including scanning in each of the three primary "chunks" of the page. In the example below, scanning activity is still largely contained in the top 3 results.



As Google and the other engines gain more confidence in presenting relevant results through personalization, and as those results become more visually compelling through blending different formats, it's important for the sponsored listings to keep pace in terms of relevance and visual appeal. In our simulated results page above, the personalized results shown in positions 3, 4 and 5 drew a significant amount of scanning away from the top of the page,

This breaking of the "Google Effect" and the Golden Triangle has some significant implications for search marketers. Obviously, all the engines are currently experimenting with new ways to present results, and while they're all being subjected to usability testing, competitive forces may mean that significant developments might be rolled out more aggressively than we've seen in the past. While this period of "on the fly" innovation promises to be very exciting for the user, and for the industry as a whole, it means that behavior patterns we've come to expect and use in planning our strategies could be in a significant degree of flux in the coming years. For example, we can't assume, as we have in the past, that being on top of the page will offer the greatest visibility. As we've seen in this test, the introduction of universal results and personalization could alter the typical left to right, top to bottom pattern that has become the standard in the past decade.

But don't expect a new pattern to emerge and become the standard. We believe as we move forward, we'll see more differentiation in interfaces, not less. As Michael Ferguson mentioned, this could become the brand differentiator for engines, and Ask has already moved in that direction. As we move away from linear, text based formats, we'll find more "hunt and seek" behavior (as per "berry picking" theory) on the search results page.

But what will this mean for top of page relevancy? That's still the ideal that engines should shoot for. The "Area of Greatest Promise" might move a little, but it should still exist. Marissa Mayer comments that the factors that determine relevance on the organic results and on the sponsored results should never be too far out of sync. We can see why when we look at the heat map to the left. If organic becomes too relevant, it draws attention down from the sponsored results. Balance between the results is important to both monetization and a successful user experience.

Google: 2010?

After the interviews, our designer Cory Bates sat down and mocked up what a possible search results page might look like in 3 years on Google. We took many of the recurring themes from the interviews and tried to create an experience that incorporated them.

It will eventually be much easier and more convenient to remain logged into your user account for your preferred engine. Therefore, it will be much easier for the engines to provide much more targeted results to you.

Regardless of where you enter your search from; toolbar, search homepage or portal page, as long as you're logged into your account, your results will display in a temporary search tab, which will populate on the fly. Much like the way Google gives you the option now to automatically populate the content into a new tab on your iGoogle page.

This allows the engines to determine, by your search history in combination with all other, the type of content to populate onto that page. If history dictates that you're still researching a product then more research oriented modules will be delivered to you on the fly, including consumer reviews, blog results, user generated video and other types of content to support the research experience. And if your search history dictates that you're ready to purchase an item, then the research takes a back seat to more consumer oriented modules like; shop local, more purchase oriented organic results and more traditional sponsored results, so that there is less in the way of the consumer's ideal conversion.

Purchase:
The first example we're showing is the basic template for the members of our panel whose history indicated they were further down the purchase path. Some of the features incorporated are described in the table on the right.

iPhone Now from Rogers
Be the first to get the new iPhone. Available now from Rogers.
www.rogers.ca/iphone

Apple iPhone
3 amazing products in 1 device. Apple reinvents the phone.
www.apple.com/iphone

Apple iPhone
Visit an Apple Store. Locate an Apple Retail Store near you and experience iPhone firsthand. You can even check iPhone availability the night before. ...
www.apple.com/iphone - 23k - Jul 22, 2007 - Cached - Similar Pages

Apple - iPhone - Where to Buy
iPhone is a revolutionary new mobile phone that allows you to make a call by simply pointing your finger at a name or number in your address book, ...
www.apple.com/iphone/buy - 19k - Cached - Similar Pages

Buy iPhone - iPod, therefore iPhone
Buy iPhone Buy iPhone Now! People are looking for a place to buy the iPhone right now. But the answer to this question is simple. You can't buy an iPhone ...
www.iphonefreak.com/buy_iphone/index.html - 23k - Jul 22, 2007 - Cached - Similar Pages

iPhone reviews, accessories, news and hacks. Buy iPhone and ...
iPhone Blog dedicated to Apple iPhone and iPod devices and accessories. Find iPhone and iPod reviews, faq, price. Buy iPhone here.
www.iphonefreak.com/ - 83k - Cached - Similar Pages

Shop Local
Rogers Wireless - 600m away
317 - 2271 Harvey Avenue - 250-861-6161
Located in Orchard Park Mall
\$549 Order direct online for 20 minute delivery within Kelowna

FutureShop - 1.6km away
317 - 2257 Harvey Avenue - 250-860-9854
See our wide selection of iPhone accessories
\$549 Order online and get one month free service contract

Buy the iPhone now
BEST BUY \$549 1 Day Delivery
FUTURE SHOP \$549 Free Month
Apple.com \$549 Free Shipping
eBay \$549 Price Guarantee

iPhone Location
iPhone available 600 m from your current location
Order direct from this Rogers store
Contact this Rogers store directly

iPhone News
iPhone can be thoroughly hacked, security expert demonstrates...
- Guardian Unlimited, UK - 1 hour ago
The iPhone can be "taken over" by a suitably equipped hacker who gets it to visit a website that carries "carefully crafted" code: ITIL...
Takahashi: Security flaw found in iPhone - San Jose Mercury News
Security Team Claims Successful iPhone Hack - PC World
all 110 news articles >

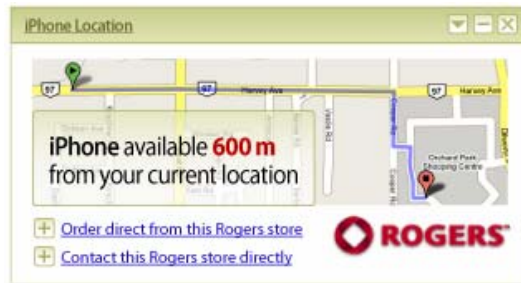
Sponsored
Sponsored
Say hello to iPhone.

Add the Ultimate Search for Bourne agent gadget to your iGoogle page

Advertising Programs - Business Solutions - Privacy Policy - Help - About Google - Mobile

©2007 Google

A



iPhone Location Sponsored Ad

Engines able to determine precise location of each search

Able to provide local solutions or options, allowing advertisers a precisely targeted advertising package

B



Remove Button

The Remove button gives the user the ability to remove this listing from the organic results, giving further control over the results to the user

An Ajax hover window would offer you the choice of removing the individual listing or the domain (which could be reversed in the user preferences if you wanted to re-include the domain into your searches)

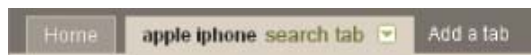
C



More Results

By choosing more results at the bottom of the organic results, you would be taken to a more traditional search page with a page full of organic results

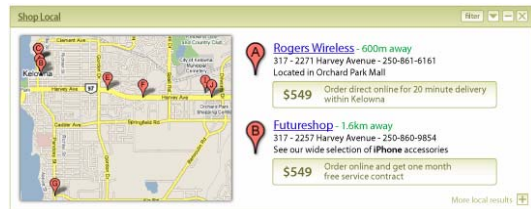
D



Temporary Search Tab

When a search is performed, a new temporary search tab is created in your iGoogle portal

E



Shop Local

An "on-the-fly" Google maps mashup populated by keyword, also based on your precise location

Serves as an additional precisely targeted opportunity on the results page (this one organic), serving up the company name, distance from current location, contact information and additional promotional details

Coupled with the more commercial "Buy the iPhone now" module, which offers sponsored opportunities across the web.


F



Filter and Control Buttons

The filter button allows dynamic filtering functionality based on the search term used and module

For instance, the Shop Local module can be filtered by distance from current location or possibly price range,

and an Ajax control alters the module instantly  Gives more control to the user in regards to the settings of the module, sharing options etc.

For instance, giving the user the option to remove the module entirely or add limitations to its appearance



Allow the user to minimize or close the module for this session

G



Buy the iPhone Now

A listing of online retailers where the iPhone is available and the current listed price

Research:

We also created a version of the personalized page that changed some of the features to be more aligned to those participants who were more interested in researching the iPhone. The changes are detailed on the far right.

A

Consumer Reviews

[WIRED](#) - Unstoppable iPhone - 1 hour ago
[PC Magazine](#) - iPhone is a significant leap - 38 minutes ago
[Gizmodo](#) - Abysmal - 2 hours ago



Consumer Reviews

Based on the number of reviews and how favorable, the results deliver a balanced, color-coded listing of consumer reviews

These can be viewed at a glance by rolling over the colored bar which serves up clickable titles to the top reviews or click on the link or the bar itself to go into more detail

B



Personalized Results

The web results included (personalized to the individual) tended to be consumer research sites rather than commerce sites

C



Blog Results

We also included some listings from popular and relevant blogs

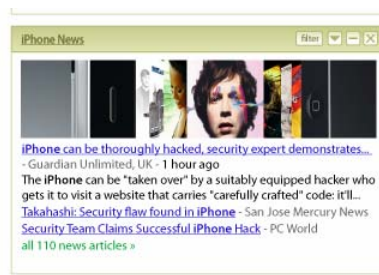
D



GoogleBook

As has long been anticipated, Google has purchased Facebook back in late 2008 and is now able to provide more well-rounded cross promotional opportunities for advertisers

E



iPhone News (present on both versions)

News stories and image results in a supplemental listing module

In the heatmap to the right, we see the aggregate scan activity from all our participants who's search and web history (as well as their comments) indicated they were ready to buy, or at least seriously consider their purchase options. All the organic results were personalized, as were the sponsored results.

As can be seen, the majority of scan activity was still in the web results section (A). We borrowed a page from Ask's design book by using the right rail to provide supplemental results, but in this case, where the activity was highly task focused (find a site that offers an opportunity to buy an iPhone) the right rail was basically "sliced" out of consideration. In addition to the heavy scanning in the standard search results, we also saw a lot of interaction with a "Shop Local" feature (B) we added. Here, we showed a Google map with balloons showing locations that have iPhones for sale, as well as listed prices. This proved to be a powerful attractor.


We also added a "Shop Online" feature (C) where we pulled prices from different online retailers. Perhaps it was page position (bottom of page) or the lack of intriguing scent provided by the map in the "Shop Local" box, but this feature drew less scanning.

Even less so was the ad for Rogers (a Canadian wireless provider) at the top of the right rail (D) that also offered a map showing the nearest physical location. This was quickly identified as an ad and resulted in banner blindness for most of the participants. The supplemental image results in the middle of the right rail (E) and the sponsored video ad at the bottom of the right rail (F) suffered the same fate.

A "Refine Your Search" pop up box (G) also drew some attention in the upper left.



STUDY: 200707 Personalization. STIMULUS: 2010 - Google Purchase. FRAME: <http://www.enquiroresearch.com/200707-pers/google-purchase.htm>.
 NUMBER OF RECORDINGS: 12. HOTSPOT TYPE: Fixation Length (Relative). MAX: 100 %.
 TIME SEGMENT: Include data from 0 ms to 40935 ms.



STUDY: 200707 Personalization. STIMULUS: 2010 - Google Research. FRAME: <http://www.enquiroresearch.com/200707-pers/google-research.htm>.
 NUMBER OF RECORDINGS: 12. HOTSPOT TYPE: Fixation Length (Relative). MAX: 100 %.
 TIME SEGMENT: Include data from 0 ms to 57527 ms.

For the participants that were still in research mode, we altered the results to be more consumer information based. In the web results section, we added a Consumer Reviews feature at the top, and personalized universal results where appropriate. We left the “Buy the Phone now” feature with prices, based on the assumption that online retailers would be appealing to those researching. We also added Blog Results at the bottom of the left column. The right rail remained the same, with the Rogers Ad, the supplemental image results and the sponsored video ad.



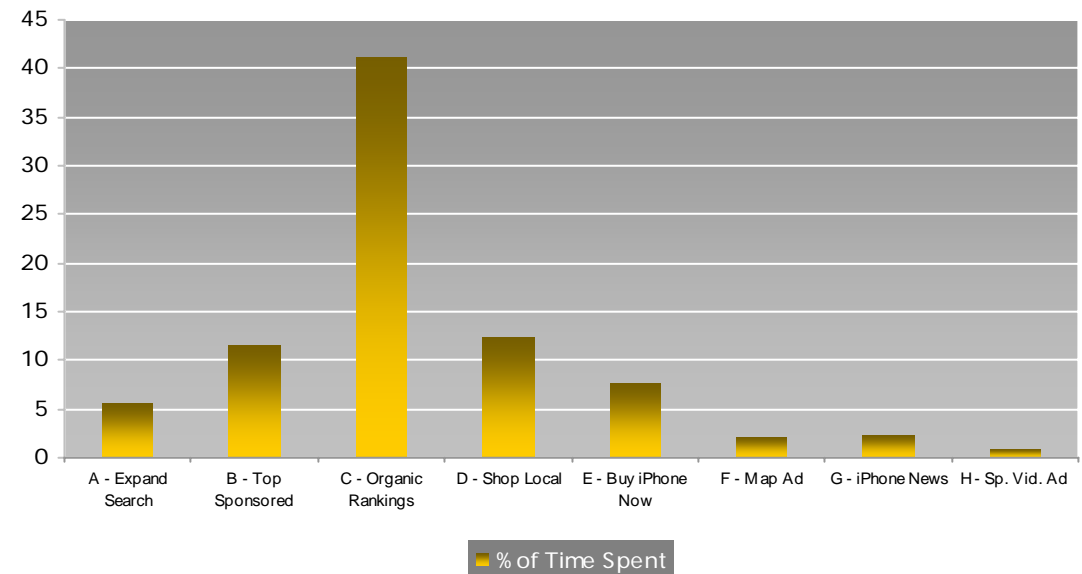
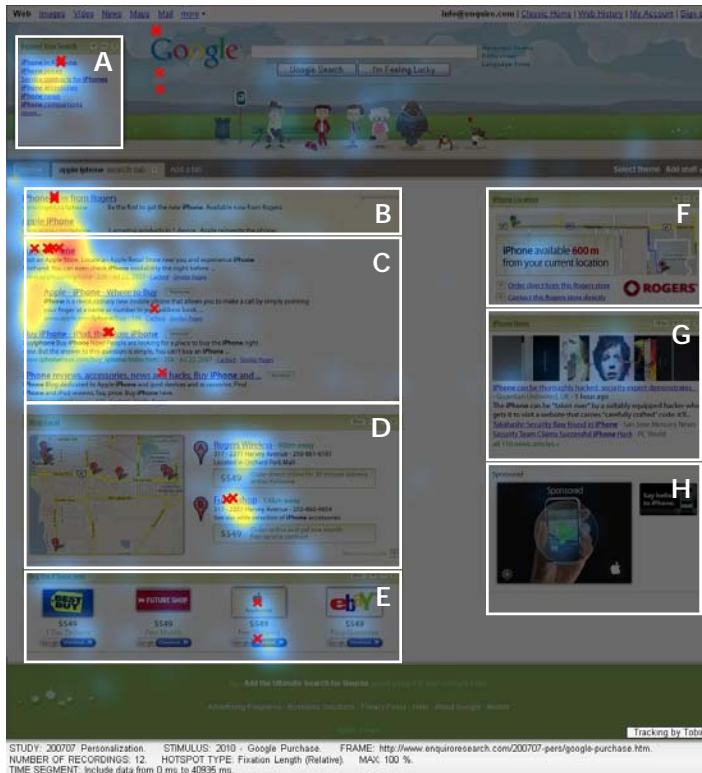
The hottest part of the page was the consumer reviews section (A, with enlarged version above), which proved to be very popular. We jazzed up the visual appeal with some compelling rating bar graphics. The combination proved to be a winner.

The second most popular real estate were the personalized web results (B). The sponsored ad above the consumer reviews (C) didn't draw much attention.

The Buy the Phone Now feature (D) drew some eye activity and one click, but didn't prove to be a very compelling call to action. Even fewer people made it to the bottom of the page to see the Blog Results (E).

We had a few glances at the right rail, but once again, it was largely ignored. One respondent did click on the sponsored video ad (H) from Apple. The ad from Rogers (F) and the supplemental image results (G) drew little attention (although notice the increased scanning activity on the image of the face near the middle, further evidence of the draw of this graphic element).

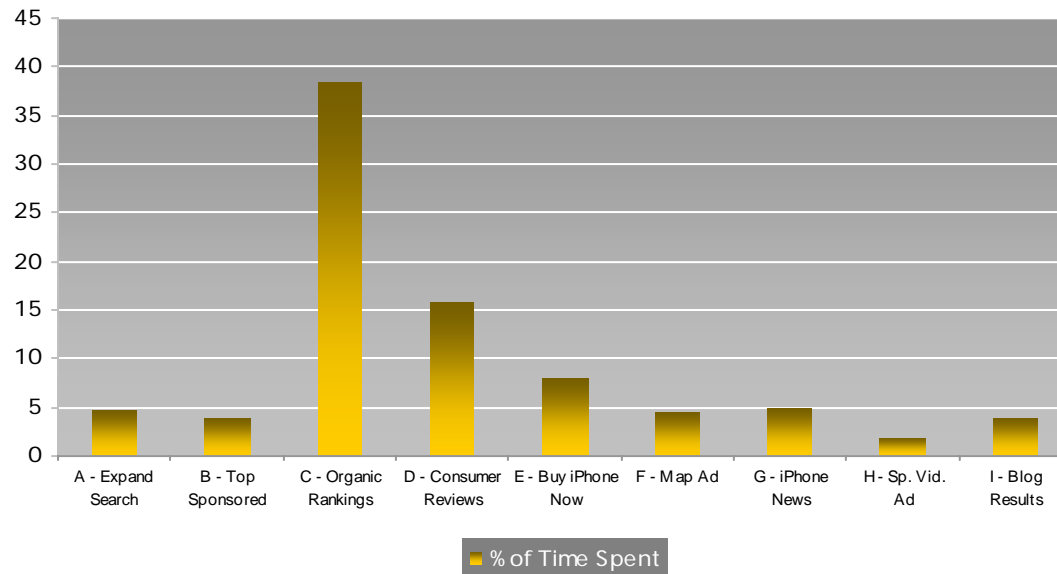
Time Spent on Page by Section - Buyers



The total average duration on the page was about 17.99 seconds. While this is twice as long as average durations we've seen in previous studies with current Google results, it's still remarkably efficient, considering that all our participants had never seen this format before and there was probably time spent just orienting themselves to the format. While the organic results (C) proved to be the most popular real estate, with over 41% of time spent on page, the sponsored results at the top drew significant attention, with almost 11.5% of time spent. The Shop Local module (D) also proved to be popular, with over 12 percent of the time spent on the page.

The left column dominated the interaction, with 72.6% of the time spent, compared to just 5.16% of the time spent in the right column. 63.3% of the visit was spent with organic content (although it was organic content with a strong commercial bent, i.e. Shop Local) and 14.43% of the visit was spent with the various sponsored messages.

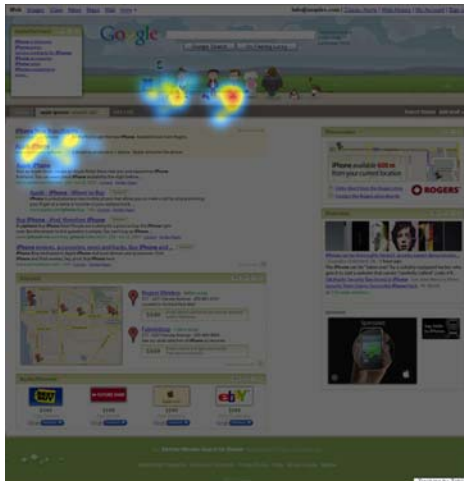
Time Spent on Page by Section - Researchers



The total average duration on the page was about 18.57 seconds, slightly longer than the duration we saw with buyers. The bulk of time (over 54%) was spent in sections D and C, both containing organic results (C, Web results and D, Consumer Reviews). If we include sections B, E, and I, we have a total of over 70% of the total page spent in this left column. Compare this with just 11.25% of all time spent in the left column, where we find the map ad (F), the iPhone News (G) and the sponsored video ad (H). There is still a very defined left bias in our interaction with the page.

In total, over 71% of the time spent on page was spent on the sections offering organic results, in one form or another. Only 10.29% of the time was spent on the various sponsored results.





The first half second shows our typical upper left orientation. Our inclusion of the results on an iGoogle tab with the graphic header proved to be a bit of a distraction. Scanning continues on the top web re-

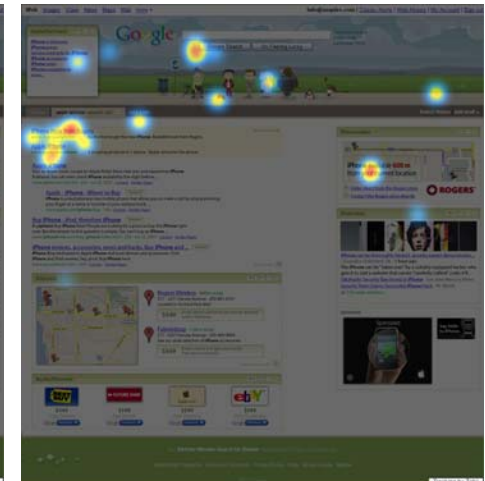


sults, as well as the "Refine Your Search" pop up box. Despite the richer content, upper left still offers the "Area of Greatest Promise" By the start of second two, the majority of

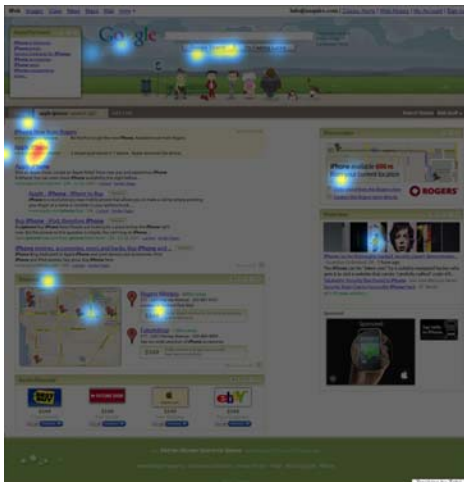


scanning is still on the top web results, but there is some scanning activity on the right rail

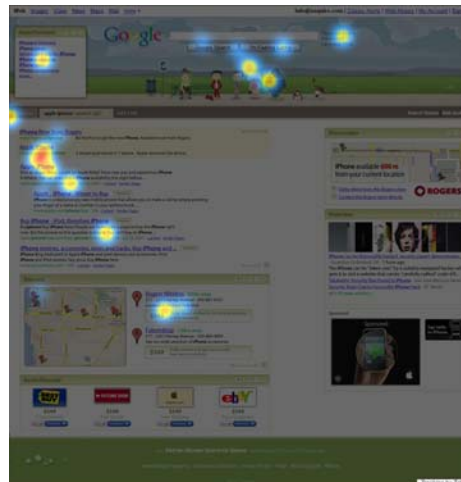
Halfway through second two, the maps



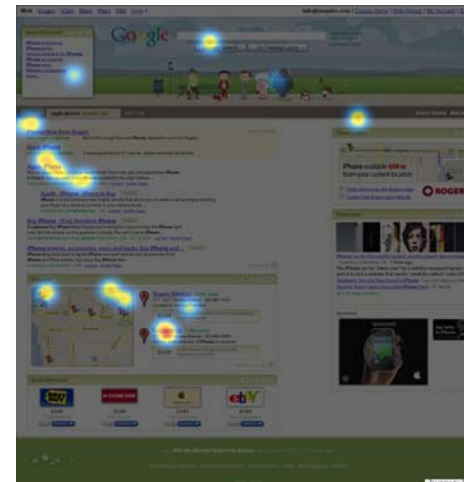
are starting to draw some attention. The first map that's noticed is on the ad in the right rail.



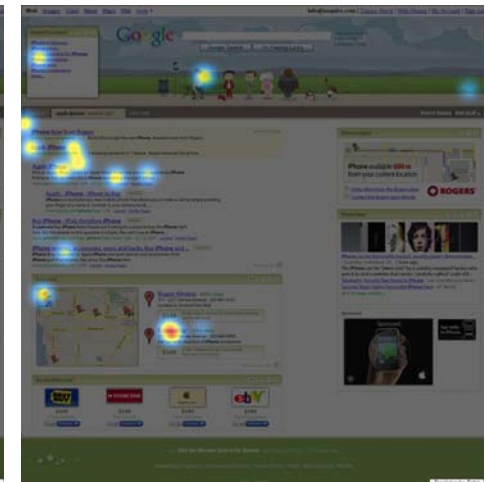
By second 3, our participants have found the "Shop Local" map under the web results. This proves to be a compelling feature



Attention is divided between the "Shop Local" map under the web results. The iGoogle banner at the top still proves to be an ongoing distraction



By second four, the majority of interaction is with the two most popular features in the main left column. So far, no one has continued down to the "Buy Online Now" section



The consideration set is split between web results and shop local results.



The first half second shows responds trying to find an orientation point. Lack of familiarity with the format creates some initial "hunting" for this



By the end of the first half second, users have found the top of the web results and have anchored there. There is some exploration of the "Expand Your Search" box in the upper left.



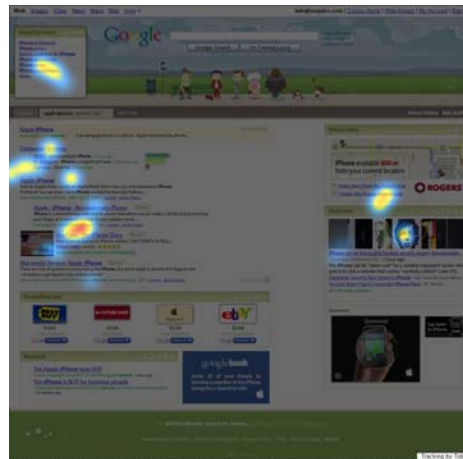
By the start of second two, the majority of scanning is still on the top web results, but there is some scanning activity on the right rail. Notice the subsequent scanning of the image result.



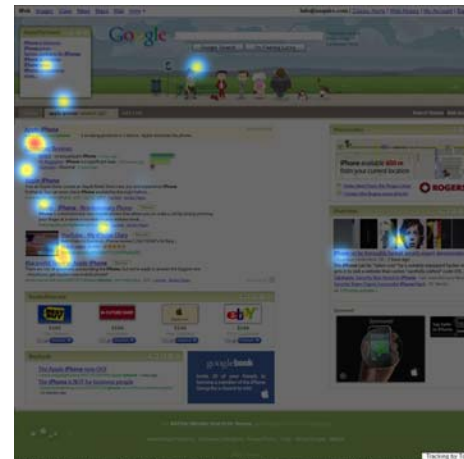
Halfway through second two, the map on the right rail is starting to draw some attention, along with "Expand Your Search" and the top web results.



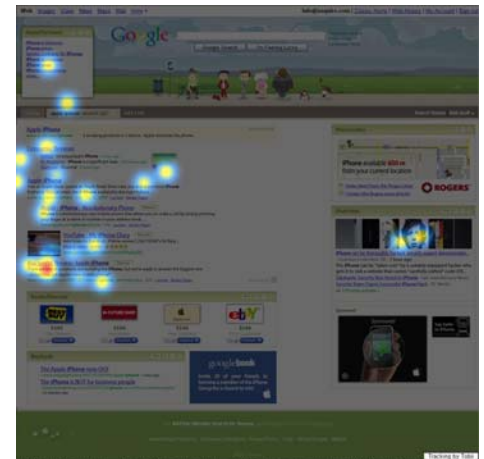
By the third second, there's more of a fixation on the image result, and some glances at the iPhone news and images



Scanning continues in the web results and both the map and the images on the right rail. Images are drawing the eye to different portions of the page in the hunt for scent



Scanning activity continues in the same areas



Scanning activity continues in the same areas

Implications for Marketers

With the evolving nature of the search results page, the challenge of how to effectively present your message to a well targeted user becomes vitally important for the search marketer. While personalization offers us more opportunities than ever to reach the right person at just the right time, increasing complexity of the search results page introduces some challenges in ensuring visibility. Although the results pages we tested in this study are largely the result of our speculation about what might be, they are based on expert opinion and there is a strong likelihood that results pages in 2010 could bear a resemblance to the ones we mocked up for the study.

The impact of universal search in linear results

Optimizing for video and image results

With the inclusion of thumbnail graphics in universal search results, the study proved the power of a graphic image in a linear set of results. When an image is relevant to the search shows near the top of the results set and provides strong information scent, there is a very strong likelihood that the majority of users will orient within the first second on this image. This will mark an effective entry point of the eye onto the results page and the scanning will progress from here. If you can optimize a result that carries a thumbnail image when it appears, and you can get that result near the top of the organic listings you have a huge advantage out of the gate. You have excellent odds that your listing, immediately adjacent to thumbnail, will be the first listing read. If you deliver on user intent, you can pull a huge number of clicks from the search results page. Images tend to break the common top to bottom linear scan which makes top positions so valuable for visibility.

For the organic optimizer, this offers a brand-new opportunity to gain visibility on the search results page. We'll restrict our suggestions to optimizing the appearance on the results page, rather than

metadata optimization techniques for images or video. That's a whole other topic area and one that our organic optimization expert, Jody Nimitz, can provide further insight on at a later date.

Regarding how these results have to look on the results page, remember relevancy and information scent are the key. You have to understand what the intent of the searcher is and then make sure that the image matches that intent. Just as you would look for content on your website that supports the most popular keyword queries, you can do the same with images. Do a keyword analysis and find which images are relevant to those queries. Make sure you tag the images accordingly and support with relevant content around the image. If you're optimizing for product, make sure the product is the strongest feature in the image. The image must be "grok" so that users can understand what the image is, even when it's shrunk to the size of a small thumbnail and is embedded in a list of search results. Also remember that faces are strong visual attractors in images. When we talk about optimizing images, the basic rules that have governed graphic design for decades start to apply to search engine marketing. Make sure there's a strong focal point, make sure there's contrast, create interesting visual images designed to draw the eye, and try to do all this in an image smaller than the size of a postage stamp.

After you optimize the image, then you have to optimize the title that sits adjacent to it. Remember, this optimization has to deliver a 1-2 punch. The picture will draw the eye but it's the title that will capture the click. Just like any other search listing, the first few words that appear on the far left side have to deliver strong sense or the searcher will continue on.

Staying on the Right Side of the Fence

As we've shown, the introduction of a graphic with straight sides automatically introduces visual

fences that can restrain scanning beyond them. If image results are frequently appearing on the same results page that your listing or ad appears, you have to be aware of this user tendency and ensure you're on the right side of the fence. Remember also that the right side of the fence could be a relative thing. There doesn't appear to be a universal rule of thumb here. If exceptionally strong scent appears below the "fence" scanning may be restricted from going above it. Or, if the graphic is well down on the visible page, the user would tend to automatically move their scanning above the "fence"

The Impact of Personalization

While opinions on personalization seemed to be split, even amongst our experts, the degree of investment in personalization on the part of Google and the competitors ensures that some degree of personalization will drive our search experience in the future. With personalization comes a whole new set of rules for search marketing. Up to this point, search engine marketing concentrated on a fairly narrow focus, the few seconds of interaction between the user and the search results page. Search marketers were intently focused on keywords because they were the direct mechanism that generated the search results page. As search marketers, we really didn't need to look any further than determining what that query might be. Because of this fairly static presentation of the results page, there was of predictable pattern of interaction and the rule of thumb was, the higher the better. But for many of the reasons that were pointed out in this study, the search landscape may not prove to be this simple in the future. Personalization will definitely impact information scent on the page, and to make matters even more complex, the degree of personalization that we see on the page will increase as engines become more confident in their respective personalization algorithms.

User-based Themes

Perhaps the biggest change that comes with personalization is the need to completely shift our paradigm. Focusing on keywords will no longer be a strategy for success. It must now focus on users. As personalization takes hold, the search real estate will be a shifting landscape, redefined for each individual user. There will be no such thing as ranking, because the ranking will be different for each user. Results will be aggregated and ordered according to the engines understanding of the user's intent. The amount of control that the search marketer has over what will and what will not be chosen and how they'll be ordered on the page will be nil.

Instead of focusing on long list of keywords, search marketers will have to understand what the predominant needs of their customers are. Once these needs are identified, themes will be established that will be matched to the needs. The use of personas and profile based user understanding will become commonplace in the search marketing world. The user-based themes will track the evolving behavior of our target customer throughout the development of a relationship with our product or service. Right from awareness through purchase and beyond, we will have to gain a deep understanding of all the touch points that influence a purchase decision and the factors that are most important to our customers in reaching that position. We will have to understand the type of content they look for online, which types of the sites they expect to find that content on, how they prefer to conduct their research, and how they educate themselves about product features and benefits. What will emerge will be an online "map" that will have a number of intersection touch points. The user may interact with many types of content as they navigate their way through the map, including podcasts, demonstration videos, white papers, competitive comparison charts, consumer reviews,

professional industry reviews and a number of other potential touch points. These "online buckets" of content provide the raw working materials for our personalization optimization strategies.

Moving up the Funnel

Up to this point, search has normally been used as a direct response marketing tool. While search works very well in this regard, search does much more than just facilitate direct transactions. In fact, for every consumer that uses search to actually make a purchase, 10 consumers use it to re-search an upcoming purchase that may never happen online. This "higher final" consumer activity is very difficult for marketers to quantify and leverage, so to this point, the value of search as a consumer research tool hasn't been fully realized. Personalization will make it imperative that we move our marketing strategies "up funnel" to do a better job of capturing interest with the customer that's using search as a research tool.

At this point, it looks very likely that personalization will be driven largely by our past online history. Google is using both past sites we've visited and past searches we've launched as a signal to determine which sites to show us in personalized results as we move our way through the funnel. So, if we visit a site early in the funnel and find it useful, it's very likely that that site will be boosted in importance in any subsequent relevant searches we do. It becomes more important than ever for our sites to be "sticky".

For this reason, you'll find sites moving quickly to build out content and functionality so they can become research bases. The more face time they can capture with that prospect early in the process, the more likely they will be to be included in the consideration set when it comes time to make the final purchase decision. Although this has always tended to be the case, in the past it was only used by the savviest of marketers. As an example, consider Progressive's approach to car insurance. Pro-

gressive knows that car insurance is a highly competitive market, made more so by access to pricing wizards online. Insurance shoppers will typically visit three or four sites, complete the wizard to see what the best rate might be, and then will go back to the site that offered the best mix of coverage and price. Knowing that this was typical behavior with auto insurance shoppers, Progressive decided to try to keep as much of this activity as possible happening on their site. While this is a smart marketing strategy, it becomes doubly so when we start mixing personalization in. If Progressive is the "go to" site for car insurance researchers, it will continue to appear in personalized search results every time a prospect goes to search for their competition. Expect to see this type of research functionality to appear on more and more sites as personalization starts to take hold. The best sites will include truly useful information and well-designed comparison wizards. The sites that want to take shortcuts will use scrapped and aggregated content but little in the way of actual functionality. Ultimately, the user will decide who the winner will be.

Optimizing for the User

Site optimization, which most of us think of as optimizing tags and making sure links, headings and content are sprinkled with keywords, will take on a whole new meaning. Now, it will mean optimizing the site for the user. With the new focus on early funnel functionality, usability will become more important than ever. It will be essential to provide clear paths to the most sought after content, and to provide intuitive functionality to users. We will have to match the "mode" of the user, and if our site is a "multi-modal" experience, we need to ensure those different paths are very well marked. For example, for the person gathering product information, this has to be presented in a "random access" way, preferably broken up into bullet points and "easy to assimilate" information bites. The last thing you want to do is lock them into a serial access channel, such as a flash file, video or

podcast. However, if your visitor is in an entertainment mode, an online video could be a compelling attractor.

More Mash Ups, Widgets and Gadgets

Because site stickiness will become a more important factor in search marketing, we will see an explosion of ways to encourage people to visit sites. These will include the development of widgets and gadgets that can spread virally through the Internet but provide compelling reasons to click back to the home site. The more site visits that register in Google's base of Web history, the more likely these sites will be bumped in personalized search results at some point in the future. Again, these widgets and gadgets will probably feature some type of consumer research functionality, although there will also be an explosion of viral games and less useful applications.

We also expect to see an explosion of mash ups that combine functionality from various applications and present it within the context of the marketer's website. The most obvious application is in the world of local search, where a huge amount of data can be presented as a mash up, layered on a map or satellite image. Other potential opportunities for mash ups include virtual worlds such as Second Life where functionality can be brought into the community's environment, encouraging the visitor to click through to the destination website. The same could be true for social networking sites like Facebook.

Circles of Importance

If one looks at the "head" of web activity, there are a number of theme-based buckets where typical traffic patterns emerge quite clearly. For example, for everyone planning a trip to Paris there are a handful of sites that emerge as being authoritative for that particular theme. Similarly, if you're expecting a child there are a handful of sites that most prospective parents will check out as they do their research. The same is true for buying a car, buying life insur-

ance, moving to a new city, starting a new job, or any of a thousand and one other life events that generate a significant amount of online activity.

Within each of these "themes", the sites that are the ones we tend to visit often emerge as a "circle of importance". These are the sites that will tend to dominate in personalized results sets. Not only will they dominate in our own personal results, but as personalization increasingly moves to incorporate aspects of social search (so that your search choices are also influenced by others who've also done research in this particular subject area) you'll find the sites within the circle of importance merge more and more often. These sites will achieve "favored" status within the algorithms of Google. Even at this point, there are referential sites that tend to be treated very well by the Google algorithm. Wikipedia, for example, shows up near the top of the results for a huge number of searches.

As search marketers start to understand what the circle of important sites are in their target category, these sites will be inundated by offers to try to gain some type of visibility on the page. These could take the form of different widgets and gadgets, offers to provide functionality for mash ups, RSS feeds or even something as pedestrian as an offer to buy a link on the page. Whatever the approach, the goal will be to gain visibility on key pages on these circle of important sites in the hopes of attracting a visit to the marketers website. The less scrupulous marketers will scrape content from the site and put it up on hastily constructed domains in the hopes of fooling both the engines and users that this site offers anything in the way of real functionality.

Emerging "Buzz" Sites

The search space is a dynamic one, often driven by the happenings of the real world. While many of the theme areas will be dominated by "Circle of Importance"; players that have been around for years (car insurance: AIG, Geico, Progressive, eSurance, AllState; travel: Expedia, TripAdvisor, Orbitz, Trave-

locity, etc) there will be emerging themes that will be driven by buzz. These emerging spaces offer opportunities for new and nimble players to establish themselves in the Circle of Importance and leverage maximum visibility during the resulting spike of search activity. This will become a key SEO tactic. For example, with the introduction of the iPhone, the opportunity was there for a new player to become a key information source that would be very appealing to people looking for facts on features, carriers, pre-release reviews, etc. This site would have captured a number of searches that were driven by the buzz surrounding the iPhone and would have established itself as a "Circle of Importance" site for subsequent iPhone search activity.

User Intelligence

The more search marketing strategies center around the user (rather than a basket of keywords) the greater the need for user intelligence will become. We need to know where our prospects are growing online and when they're researching their purchases. We need to be able to define the online maps and traffic patterns, as well as identify the sites that sit within the circle of importance. The more intelligence we can gather on the user, the more realistic we can make our personas and profiles and the more effective are strategies will be. Tools like Hitwise and Qsearch will become essential in the search marketers arsenal. We would expect many other players to move into the space and subscription price points to start dropping. One of the key sources of this user intelligence may come from the engines themselves. Engines already gather an extraordinary amount of user-based data that, when aggregated, could be used to provide clear pictures of user behavior in a number of different categories. It would be logical to see further user intelligence and profiling tools introduced in the campaign management platforms offered by the engines. Microsoft already offers some interesting profiling tools in

their AdCenter platform and Yahoo is following suit with Panama. Google, with their Google Toolbar data, could offer some mind boggling intelligence if they chose to, but privacy implications will always be first and foremost in their minds.

On the less ethical side, expect a rush of spyware tools that offer detailed clickstream data on certain groups of users. Often, this will be combined with behavioral targeting offers. While some early players in the behavioral targeting space have played and retreated from tactics that triggered the ire of users, the buzz around personalization will draw more and more players into the space.

Matching Information Scent in Organic Results

As goes the organic results, so go the sponsored ads. Although personalization is first being implemented in the organic results, it's just a matter of time before sponsored results are also impacted by personalization. Google is taking their first tentative (painfully tentative) steps in this direction, as is Yahoo with their Smart Ads. While the organic side is where they'll win the buy-in of the user, they can't let sponsored trail too far behind, or, as Danny Sullivan pointed out, "if the natural results are getting better and better why would someone want to click on the ads anyway?"

Google and the other engines are acutely aware of the importance of this balancing act, but it's fair to assume that given the inevitable flux in the results in the foreseeable future, there will be some disconnect between the relevance of the organic results and the sponsored results. Therefore, it's important as advertisers to do everything possible to make the sponsored results we place as relevant as possible. We have to keep a constant eye on the results pages that are being serviced up with our ads on them and see how factors such as personalization and the presentation of universal results could be drawing searcher attention away from those ads.

Matching Ad Formats with the User

One of the more intriguing points that came up in the interviews is the notion that personalization might not just be used to determine the relevance of results, but also to deliver advertising messages in the preferred format. For example, if a user routinely ignores video ads, the engine could "shut off" the video option and provide a text-based ad instead.

Again, this points out the need for a deeper understanding of our target. Different formats offer different messaging and engagement opportunities. Search has always been a "one-size-fits-all" game, but that may soon change. If the opportunities arise that would allow the serving of different formats, we have to understand how users would engage in those formats, especially within the relatively short and intense interaction that typifies a visit to a search results page. As search provides more opportunities to target, we need to know more about the prospect we're looking to target and how to maximize every touch-point with them.

The Importance of Local Search

One area of search that's sitting on the cusp of an explosion is local. Personalization and universal results promise to make the local search experience even more useful and compelling. When search engines can confidently disambiguate local searches and display a rich local results page, complete with information presented on maps, and when mobile bandwidth allows for delivery of that experience to a phone or PDA, we have a blockbuster app that will be adopted at breakneck pace. For search marketers who are eyeing the local market, this means that now is the time to do your research and be ready for the explosion when it occurs. Increased local search functionality will mean that search marketing, which has predominantly been restricted to marketers looking at national or global markets, will suddenly come home in a big way. Search will be used to find companies around the corner as often as it is to find companies around the globe.

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Cory joined the Enquiro team in 2004 with 6 years experience in web and traditional graphic design. He specializes in providing consultation and management of organic search marketing campaigns with a focus on site usability

Krista is an intern from the University of British Columbia. We thank her for her tremendous contribution to this work; she is a valuable addition the Enquiro team.

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