MARKETING WHITE PAPER

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Converging business strategy, creative thinking, and new technology

DRAW THEIR EYES TO THE PRIZE WITH EYE TRACKING TECHNOLOGY

fabcom

integrated strategic marketing

ENSURE YOUR MARKETING INITIATIVES ACHIEVE THEIR GOALS

FabCom's integrated technology for eye tracking, and our deep experience in effective, compelling research, has allowed us to develop unique insights—and consistent successes—for our marketing and advertising clients. When combined with our proprietary, scientific process of Neuromarketology™, eye tracking studies allow us to definitively know your target audiences' emotional connection points and relevant behaviors. This enables us to engineer web pages and other marketing communications that effectively connect brand attributes and powerfully influence desired actions in the most relevant manner for each target audience.

The empirical, heuristic results generated by eye tracking dispels bias which often skews results from research participants. Furthermore, we have found eye tracking to be more time and cost-effective when compared to other neurological research methods in evaluating websites and marketing materials.

Human vision functions in two ways. One, it transmits an image via the eye into the brain. Two, it tries to control both eyes, directing them to the most relevant location at a particular point in time. Eye tracking gives us access to both of these functions. It shows the image sent to the retina followed by the response, including the duration of response time and the path in which the eyes move from one location to another. We can also record data about blink frequency and pupil size, which indicate transitions in the cognitive load.

> *The observer's thought may be followed to some extent from records of eye movement (the thought accompanying the examination of the particular object).*
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> ***Alfred L. Yarbus | Russian Psychologist***

Eye Tracking Research has a Long—Track Record.

As early as the mid-1800s, studies of eye movement were conducted simply by direct examination using mirrors or short paper strips affixed to the eyeballs (ouch!). In 1879, Parisian scientist Louis-Émile Javal noticed that readers do not smoothly sweep their eyes along the text, as had been assumed until then, but actually make very brief stops called "fixations" and "saccades," which are quick, simultaneous movements of both eyes in the same direction.

Alfred L. Yarbus, a widely quoted Russian psychologist and early pioneer in eye tracking studies, observed that:

"Records of eye movements show that the observer's attention is usually held only by certain elements of the picture...Eye movement reflects the human thought processes; so the observer's thought may be followed to some extent from records of eye movement (the thought accompanying the examination of the particular object). It is easy to determine from these records which elements attract the observer's eye (and, consequently, his thought), in what order, and how often."

What Can Eye Tracking Do?

As eye tracking research, utilizing leading-edge technology, makes it possible for us to know precisely where someone is looking—in real time—as they peruse a website or any other marketing communication. The resulting data allows us to develop a comprehensive understanding of prospective customer behavior and predict future responses and intellectual transitions in order to inform the most effective use of design for any visual messaging within the marketing mix.

- Which elements or content attract the most attention?
- To which element or content do customers give the most focus?
- What information is meaningful and understood?
- How do users of your brand communications make decisions and take action?

Because we can provide our clients with objective and definitive answers to these questions and specific creative direction to achieve their goals, we can help them avoid the most prevalent and dreaded catastrophe in the marketing universe—decisions and design by internal committees, based on personal perceptions and politics. You know the drill.

- The company president who looks at a proposed design and says, "Make the logo larger."
- The guy from accounting who stops you in the hall and says, "Can't you fill up that 'blank space?' We're paying for it, let's use it."
- The vice president who says, "I showed it to my wife and she said..."

In addition to providing specific, optimal quantitative direction driven from the clients actual users when developing marketing creative parameters, our eye tracking research allows FabCom to provide the clients' marketing staff with proven, scientific, unbiased facts. In turn, strategically vetted decisions are protected from those who tend to insert opinions or focus groups that are strategically insignificant between marketing initiatives and the perceptions of target audiences.

Eye tracking assures the methodology of marketing and website usability research, delivering supplemental behavioral data that research subjects cannot necessarily communicate and the researcher is unable to detect using traditional or qualitative processes. It is the only method to measure viewer focus and emotionally visceral, unprompted reactions to advertising, both online and offline. Combined with other research modalities, such as observing research participants, eye tracking provides comprehensive and confidently actionable direction to marketers.

How Does Eye Tracking Improve Usability?

Rather than simply asking research participants to remember and/or describe their reactions to the test situation and how they engaged with it, eye tracking allows us to assess user behavior, as well as document and aggregate multiple test subjects' actions and reactions in real time. While researchers normally observe faulty recollections and the tendency of participants to say what they think the researcher wants to hear, eye tracking eliminates this cognitive dissonance while revealing insights that traditional research methods usually fail to detect. The derived insights allow us to optimize layout, position, and content hierarchy in order to increase the impact of a brand's communications and influence reader or user response.

How Does Someone Typically View a Webpage or Ad?

There is no common pattern to the way someone looks at online or printed pages. For example, they don't first look at the upper-right corner or stop at the bottom of the page. People may first look at the center of the page because text or an image draws their eye. Sometimes they may look for a company logo to be sure they are on the right page.

Readers are more likely to have similar "look patterns" if they are trying to both accomplish the same task within, or from the same piece of communication. But even in these situations, the way they look at certain elements, such as the navigation or search functions, vary between tire-kickers and real, engaged stakeholders. Eye tracking studies and task analysis—coupled with our Neuromarketing methodology that defines and segments your target audiences—creates more effective online and offline marketing with the type of brand engagement readers and users want and where they want to see it.

As mentioned above, eye movements are typically divided by researchers into fixations—when the eye pauses in a single position, and saccades—when the eye moves to another position. The combination of fixations and saccades is called a "scanpath." Information is transmitted to the brain from the eye during a fixation, but not during a saccade.

As football is often described as a "game of inches," website and ad design is a game of fractions of seconds. That's how long you have to grab attention and create engagement. Our studies have revealed that, on average, fixations last for approximately 200 milliseconds (ms) during the text reading and 350 ms while viewing an image. Given these minuscule slices of time, if your website or ad content is not engineered properly, your efforts are doomed to disappoint, fail, and waste resources.

An Overview of Our Neuromarketology Process

Generally speaking, our eye tracking and Neuromarketology studies commence by presenting a piece of work to a sample of target audiences while an eye tracker records the movement of the eye. The key is our methodology for selecting the participant sampling based on our careful analysis of your product or service and the marketplace for similar data available about customers and prospects and their relevant brand attributes. The demographic, psychographic and behavioral data thus derived can then be combined with the analyzed and graphically rendered eye tracking studies to show us the participants' specific viewing patterns. There are two main types of graphic renderings of the eye movements leveraged at our integrated marketing and advertising agency. A "heat map" shows where participants spent the most focus or attention on the material (the fixations), and a "gaze plot" shows the successive movement of the eyes around the material viewed (the saccades). Look at the sample of each below:

Heat Map

Gaze Plot

To create a heat map of a web page for example, a screen shot is color-coded to reflect the total number of times each element was viewed. Most-often-viewed elements are in red, the yellow areas indicate fewer fixations, and the green indicates the areas least viewed. If an area is blank, it didn't attract any fixations.

Heat maps can represent either the number of times viewed or the length of fixations. Typically there's no particular advantage to either method, especially when multiple participant results are averaged. While it is informative to get an overview of multiple participant activities in a single image, heat maps "round out" differences between individual participants; users often approach the same web page in individual fashions.

Since usability and marketing success is determined by the success or failure of each individual user, gaze plots display a considerable amount of information that can be gained from recording individual users' viewing patterns. In a gaze plot, participant interaction with a page is illustrated as a series of dots, with each dot indicating one fixation. The size of each dot shows us the duration of that fixation, with larger dots indicating longer viewing. The dots are numbered to show the sequence of the fixations, and thin lines connect the dots to show the saccades as the participant's eyes moved from one location to the next.

Eye tracking and Neuromarketology provide valid data even though two people may look at the same page differently. It's simply a fact of website usability and something that would occur no matter what method of research was used. User interface designs are only valid within the context of actual use, so that's how they should be tested as well.

The main difference between studying website usability and Internet advertising effectiveness is that although interactive ads exist, static display ads (like the ones in newspapers) are more common, and people don't interact with most of them the way they would with other features of a website. Consequently, when we test print ads with eye tracking, we rarely ask participants to accomplish specific tasks. Rather, print ads are just displayed on a monitor, and the eye tracker measures what elements attract the participants' eyes first and dwell time on the various areas of the ad.

Online ads featuring interactive drop-down menus or small games/ interactions should be tested like any other user interface—by giving participants a common task in order to see how they interact with the features.

For example, a quantitative eye tracking study may determine that it takes participants 6.2 minutes, on average, to purchase a ream of printer paper from a website, but a qualitative study may indicate that participants are confused as to how to select a delivery date for the paper due to a design flaw. Both are obviously interesting insights, but if the website owner wants to sell more paper, a qualitative study would be the best choice.

Choosing Your Online Research and Agency Partner—Eye Tracking or Otherwise

Another key to obtaining valid, actionable insights from eye tracking studies is to be sure that your research partner is following three important criteria:

- Representative participants (targeted demographics, psychographics, etc.)
- Real world task assignments
- Testing experience across a wide variety of interfaces. People look at a web page very differently depending upon whether they're just going past it as they attempt to achieve a goal somewhere else or they are looking at it for its own sake.

Many researchers gather worthless data by asking users to "look at this web page, and tell us what you think about it." This method isn't a real world task because consumers don't normally go to a website looking to analyze its design. Only web designers and invested stakeholders with something to say or prove do that. But if you ask people to look at a page to judge it, natural cognitive dissonance causes them to pay attention to design elements much more carefully and in detail than they would in their everyday use.

Sadly, much of the eye tracking research is conducted by simply showing one or two pages to participants and then reporting on how they looked at them. The very act of showing participants a specific page, as opposed to letting them navigate an entire website, biases how they will look at it. When participants are aware that researchers are assessing a specific page, they look at that page differently and more carefully than they would if that page were just one of many seen while going through a website.

Corporate politics (satisfying the vocal minority) consistently results in the ineffective, cluttered web design we are regularly asked to fix. Various people in an organization tend to have strong opinions about positioning web elements in what they think are coveted spots, even if they don't know what end user eye tracking could indicate are optimum. Designers are regularly ordered to jam too many elements into a specific position and pray that they will even be seen. Most likely, they will not be seen. If they are, it will not affect users. Companies establish strong, valid priorities between what they want users to do while on their site(s) and what real customers and prospects actually want to do. An effective, productive online presence is one where the most important features are easy for users to see and interact with. To create an effective online presence, marketers and designers need to stamp out the clutter and the "visual noise" of too much "stuff" that corporate politics cause.

In Summary

FabCom's eye tracking technology and experience, combined with our proprietary, scientific Neuromarketology process, can help provide a brand with objective, valid, and actionable answers to your questions regarding your target audience(s).

- Where are they looking?
- How long are they looking?
- What are they looking for?
- How does their focus move from element to element?
- What parts of the interface or features are they missing?
- How are they navigating through the page(s) or ad?
- How does size and placement of items on your existing site/ad or on a proposed site/ad affect their attention and actions?

Providing answers to these questions enables marketing efforts to dramatically increase customer and prospect satisfaction and motivation when using your website or viewing your other marketing materials. As with everything we do for our clients, it is all about the return on investment.

FabCom is a full-service strategic marketing, PR, and advertising firm

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*Amortized for media billings as calculated in the Phoenix Business Journal Book of Lists.