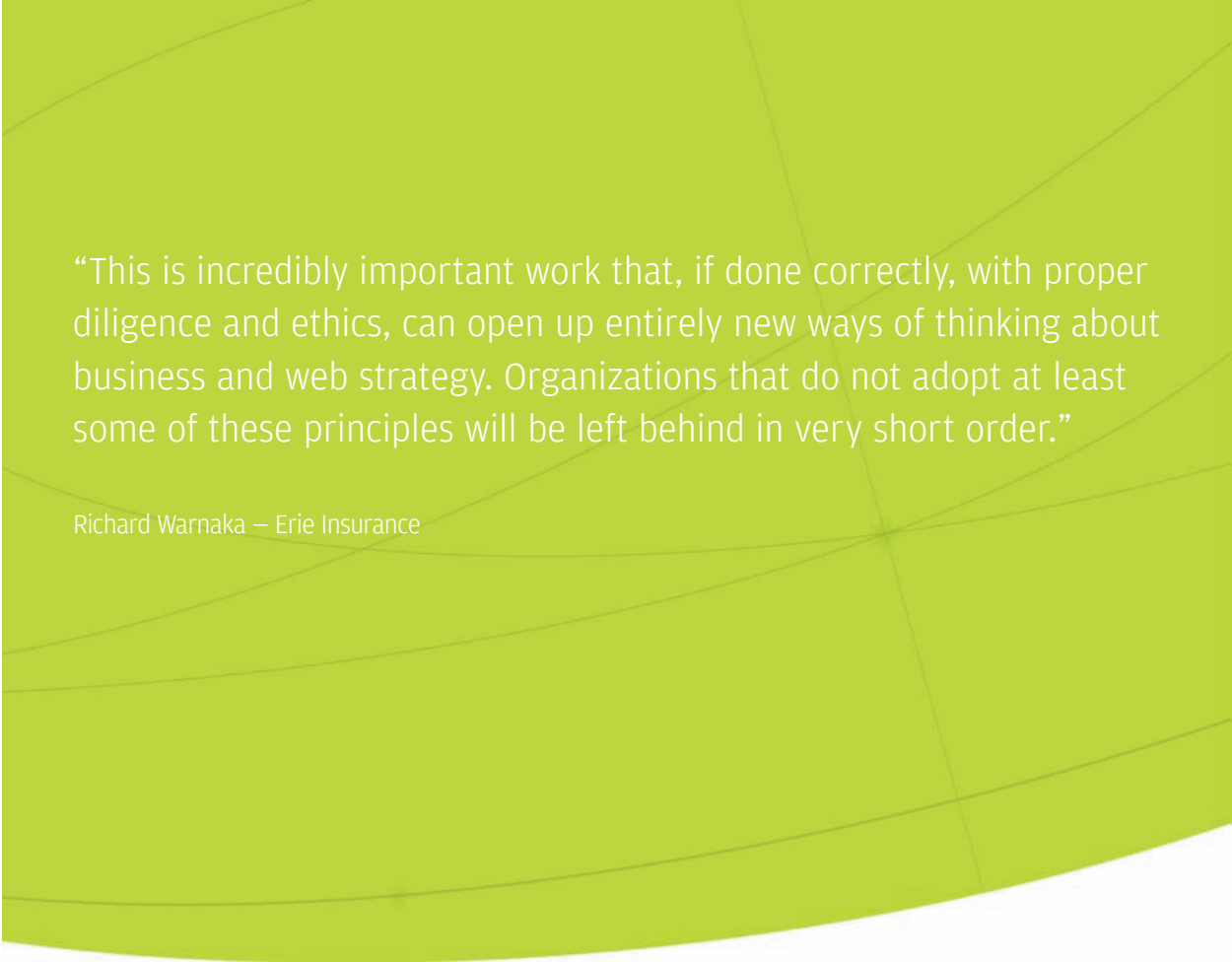**Human Factors International**

Beyond Usability
Designing for Persuasion, Emotion, and Trust

Eric Schaffer
CEO and Founder
Human Factors International

"This is incredibly important work that, if done correctly, with proper diligence and ethics, can open up entirely new ways of thinking about business and web strategy. Organizations that do not adopt at least some of these principles will be left behind in very short order."

Richard Warnaka — Erie Insurance

White Paper: Beyond Usability

Designing for Persuasion, Emotion and Trust (PET design™)

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Executive Summary

The next wave of the Information Age is about designing for persuasion, emotion, and trust (PET design™). You still need good usability—if people can't find something they can't be persuaded by it—but soon usability will no longer be the key differentiator it has been. It's often not enough to design a website that is easy to navigate, understand, and transact on. Just because people can do something doesn't ensure that they will. The future of design is about creating engagement and commitment to meet measurable business goals. Whether your site is e-commerce, informational, or transactional, you must motivate people to make decisions that lead to conversion. The interactive online environment offers far more opportunities to influence decision making than traditional advertising or marketing channels. Yet understanding people's subtle emotional triggers requires a rigorous set of new techniques, the results of which can even conflict with classic usability best practices. This paper presents a strategic overview of the science of persuasion, based on HFI's new PET design methodology. We'll explain why your company should apply these research-based techniques to influence online behavior through persuasion, emotion, and trust.

Persuasive design: the 4th wave of the information age

Having been in the usability field for 32 years, I have had a unique perspective on the information industry as it has evolved. We're now seeing the dawn of the 4th wave of the Information Age: designing for persuasion, emotion, and trust (PET design). Usability alone is no longer enough to make your website engaging and effective.

› **1st wave — hardware:** First, good hardware was the IT world's critical differentiator. Now hardware is a commodity.
› **2nd wave — software:** Then it was all about who had the right software — companies that could create stable software with the right functionality ruled the industry. Now, software development is regularly outsourced and any large corporation can usually afford to buy the top software. It has also become a commodity.
› **3rd wave — usability:** As the curve again shifted, people's successful interaction with software and websites—usability—became paramount. There's still plenty more work to be done, but usability is becoming a "hygiene" factor, something people expect.
› **4th wave — PET design:** The new differentiator is now about designing for persuasion, emotion, and trust.

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At HFI we've been working on PET design for several years now. The need for persuasive design really hit home after an engagement with a large Asian government. "We want vibrant websites," they told me emphatically. I raised my eyebrows. What they needed were websites where people could find things, something they clearly didn't have yet. But they kept harping on this theme of "vibrancy" and even showed me their prototype. It was a disaster. Jammed with wiggling animations and garish colors, you couldn't use it to accomplish anything. In fact, you couldn't even tell what its purpose was. But we still tested it with their target population, American and European CEOs likely to invest in the country. Participants told us during our testing that they didn't trust the site. "This does not look like a serious enterprise," they said. The Asian government was clearly after the wrong thing, right? Well, yes and no. I grasped what was behind their emphasis on vibrancy. The government wanted a website that was persuasive and convincing. And it dawned on me that user engagement, rather than classic usability, is now what truly sets effective web design apart. Usability still matters, of course. If people can't find the content on a website, it won't persuade anybody. But ultimately there's more to engaging people than making sure they can find content and perform transactions. The element of can do is only a start. We need to design for will do. Creating websites so people:

› will buy a product
› will ask their doctor about a new drug
› will decide to vote for a candidate
› will invest in the Asian country

Persuasion objectives = business goals: a holistic view of user experience design

HFI's PET design methodology offers a new approach. While based on a foundation of usability, it provides a whole new set of methods and techniques with a different perspective and goals. This methodology is the result of extensive research, pilot programs, and client engagements with Fortune 500 companies over the past several years. In this new wave, designers can no longer just be concerned with users' ability to accomplish a task online—or even with users' satisfaction, as such. Just because a site is easy to use doesn't mean it will engage consumers and meet business goals.

It used to be that most e-commerce sites were equivalent to a brick-and-mortar store with barbed wire and land mines in front of it. People could barely make it in, no less find what they were looking for or checkout with ease. After going through many frustrating steps, they were a bloody wreck. Now that usability has become widely adopted, the barbed wire and mines have been swept away. Now it's time to spruce up the inside of the shop. The online experience must be enticing—not just easy and satisfying, but something that makes consumers feel engaged, and

ultimately committed. Once it has been made usable, a website needs to push clients to transact or convert.

It's this persuasion event that PET design is ultimately concerned with. A usability engineer can make it easy to purchase insurance online. But that's not the main reason why people buy a policy—rather, it's because the site has persuaded them. This could even be accomplished by making someone feel frightened and insecure about what could happen to their family if they don't buy insurance.

For companies and designers, this changes virtually everything about planning a website. Standard usability research and testing are often no longer adequate. For one thing, PET design has a fundamentally more qualitative element than usability.

Consider this scenario: I could be a usability test participant for a site that sells Barbie dolls. Even though I'm not a target user, they could still evaluate whether I can find Barbies on the site and make purchases easily. But PET design requires examining how participants feel about buying a product, whether they would buy, and whether the site motivates them to buy. So I—a 50-something year-old male with two 20-year-old sons, no daughters, and no interest in Barbies whatsoever— am the last person you'd want in a PET design evaluation.

Who the test participants are, what they're asked, and how they're asked it, all matter a great deal more in PET design. The research and testing are more exacting because what we're doing is looking at human preference and decision making. This means we need to go further in our research. We need to probe the depths of people's drives, to look at their deep beliefs. In order to understand the blocks that keep users from doing things, we must look at their fears, as well.

Emotion & decision making

There tends to be a real disconnect between what people say they'd do—which is usually what they want you to hear—and what they'd actually do. There are certain things that people are unwilling to admit, even to themselves—or are simply unable to see.

Malcolm Gladwell's book, *Blink: The Power of Thinking Without Thinking*, deals with the primary role that snap judgments play in consumer decisions. Gladwell said that marketers should be very careful about using what people say while sitting around a table responding to "what if" scenarios. The thinking processes that guide our commercial choices are complex and emotional, not logical and linear. In an interview, Gladwell asserts that market researchers are "led astray by the naive assumption that people can successfully describe" why they've made certain judgments.

The thinking that guides most of our decisions, particularly our choices as consumers, is done "in the moment...a product of our unconscious," Gladwell said. "It's in fact foolish outside of the psychiatrist's office to even venture to come up with an explanation of what's going on there." [1]

Gladwell's point is a good one, yet at HFI we've shown it is possible to design for persuasion by modeling and understanding what the deep parts of the human brain are doing. Furthermore, we've demonstrated that it's possible to do so in a methodical and scientific manner, informed by research and validation, rather than guesswork. (We can even evaluate the physiological reactions that accompany various emotions. Interestingly, affirming Gladwell's points, research shows people will attribute any physiological state to what is going on in their environment at that moment. There is an underlying physiological narrative going on inside of us, and the mind creates a story at the intellectual level to justify what's going on and why the feeling is there.)

Understanding this framework is key to persuading someone to make a decision—charting a user's emotional reaction and engineering it to the extent that's appropriate. This is how PET design optimizes engagement. (For a more detailed explanation of a specific PET design technique, see our white paper, *Designing for Conversion*, by HFI's Mona Patel.)

Emotion & decision making

Let's take an example. HFI was recently engaged to redesign a prominent state lottery website. Most people didn't know this state's lottery was created to generate extra funds that support public education. While the lottery website obviously reminds people to play responsibly, its goal is to encourage them to participate in more games more often—thereby generating more income for education. The site is also an important tool to communicate this meaningful contribution, particularly to lottery skeptics.

The site suffered from usability problems, but more importantly it didn't capitalize on opportunities to engage site visitors and convey key brand values of optimism, hope, trust, and fun. HFI's PET design research found that people play lotto because of the anticipation, excitement, and adrenaline rush it creates. They don't rationally expect to hit the jackpot—people admitted they probably had better odds of being struck by lightning. But they're still happy to buy a $1 ticket for the chance to dream

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[1] Bess, Allys, "Gladwell's Blink-think may soon be all the rage in marketing"
San Francisco Business Times, January 28, 2005 San Francisco, CA

about what they'd do if they won—it's an emotional adventure. Yet the website did little from an emotional design standpoint to leverage these feelings to create a stronger connection and engagement with lottery games. It was fundamentally an information site that made playing the lottery less fun. For example, it simply reported winning numbers instead of replicating the emotional experience associated with watching the numbers announced on television.

So HFI applied a host of classical usability techniques, combined with our new PET design methodology. Once key user motivations, drivers, blocks, and barriers were uncovered and defined, HFI created innovative design elements to fulfill the aspirations of site visitors. These features included:

› dynamic winning number results that simulate the TV experience
› winners near you
› lucky store locations
› lucky number generator games
› maps showing where the education money goes
› "what would you do if you won" surveys

Critically, these new elements engage visitors in ways that remove barriers and blocks and encourage deeper interaction. During the redesign, HFI's experts were careful to ensure that users could complete key tasks critical to the lottery's business goals, while still making them more fun and enjoyable. Through the PET design process, HFI developed a new site prototype that:

› nearly doubled task completion rates, from 47% to 93%
› was preferred by 91% of users, compared to the old visual design
› generated a more positive response to 9 out of 10 brand attributes tested
› reinforces the lottery's mission of supporting education, which is important to
› allay people's doubts about where their money goes when they play

When usability conflicts with persuasion

Once the usability field shed light on how people actually use websites, marketers and designers had to think more clearly about how they wanted people to use websites. PET design pushes designers to clearly, precisely define the purpose of the site—their persuasion objective. For e-commerce sites, that objective should be to persuade, engage, and inspire the trust of the customer to buy their products or services. Even government and non-profit sites have a persuasion objective. They want to convince citizens that the government is good, worthwhile, and effective.

Only when the persuasion objective has been identified and articulated clearly can appropriate techniques be chosen from a toolkit of role-specific persuasion technologies developed by HFI. For instance, there are very specific design techniques based on the principles of social pressure, scarcity, or contrast.

In some ways, PET design can actually be easier than classic usability. Persuasion-oriented tasks and design elements may be minimal compared to making every error message intelligible on an enterprise site. Yet the strategies behind PET design are non-trivial. The design methodologies are also different from those of usability design—in fact, they sometimes conflict with each other.

Let's look at one central example. Intrinsic to PET design is making people feel engaged and committed. To do this, it may be important to make the user feel effective when using the interface. Those familiar with usability know the cardinal rule is "Make it simple!" Yet it's actually possible to make a design too simple to create the feeling of effectiveness and engagement that stems from a more involved and possibly more complex interaction. If you want users to experience a sense of discovery or achievement, you might intentionally build in some hurdles for them to overcome along the path.

There is another important concept working against strict simplicity in design—e-tailers want customers to encounter as many products as they can, just as in a brick-and-mortar retail space. Yet this objective to cross-sell and up-sell can conflict with usability best practices.

Think of a shopping mall. If you've come to the mall to buy a widget, you'll invariably find the widget store is on the farthest end of the mall from where you started, forcing you to pass many other stores along the way. If the store with your widget is a large one, the pattern is repeated anew—you pass through perfume, ties, board shorts, jewelry, and watches to finally reach the widget department. Was it an efficient process to get from your car to the item you came for? From a strict usability perspective, no. You may even have gotten lost along the way. But is it poorly designed? Quite the contrary. While making your way through the mall, you probably discovered many things you didn't think you wanted but may end up purchasing.

Thus, the retail space has been designed not to optimize efficiency, but to optimize persuasion opportunities. The same principle applies in the online environment. While preserving usability so users don't feel frustration or other negative emotions, it's still possible to create a more interesting and entertaining user experience that maximizes persuasion opportunities.

The science of trust

We've acknowledged that consumer decisions are not made logically, but rather are based on emotion, impulse, and other reflexive motivations that come from our "limbic brain." Understanding that is central to creating and leveraging a sense of trust.

Briefly, the limbic or "old brain" is the seat of all emotions, passions, and autonomic reflexes. It expresses itself though anger, fear or infatuation—often to the point of swaying our more logical processes based in the neo-cortex, the more "human" part of the brain.

This is why we often trust someone or something before we even know why. As Daryl Travis, author of *Emotional Branding: How Successful Brands Gain the Irrational Edge*, says, "One very important scientific aspect of this whole process is that we know the decision making process does not work in the absence of an emotional signal from the limbic system. Left to its own devices, the consciously thinking part of the brain is incapable of making a decision. The implications of this for marketers are inescapable."[2]

Thus, it is imperative to establish trust. Only with trust will the customer be fully persuaded and take the action the site intended (going from can do to will do). But it's also not enough to simply want to be trusted. Your organization must earn the user's trust. HFI has deeply researched how trust is established in the online environment and determined which variables are most significant. This systematic understanding, rather than leaving the result up to chance, has provided a range of very specific trust-building techniques.

One example is the seemingly prosaic FAQ. A considerable body of research supports the idea that FAQs are very effective in establishing trust. FAQs on a website indicate that the organization behind it is not a fly-by-night operation, but rather a solid and diligent enough enterprise that cares enough to document such things.

Another trust technique is to "match existing knowledge." That is, present a piece of information that your users know is true in order to strengthen the credibility of subsequent claims.

[2] Travis, Daryl "Brand Blink: Understanding the Mind to Get to the Heart of Business Decisions" *Marketing Today*, Darien IL

PET design vs. traditional marketing & advertising

It should be noted that PET design goes beyond what traditional advertising or marketing agencies do. Persuasion is the name of the game for them too, but the tried-and-true techniques of priming, framing, and conditioning—which get people to feel that a product is familiar, good, and attractive—come from older, static media where messaging only flows one way.

PET design takes root in the dynamic and interactive environment of the Web 2.0 universe. It allows us to go far, far beyond what traditional marketing is able to do. I've taught many marketing and advertising specialists in the PET design classes I've given around the world. They've consistently remarked that the perspectives, skills, and methods PET design leverages represent an entirely new range of techniques which take online, interactive marketing a quantum leap beyond anything they've ever known.

Practitioners: Is PET design right for you?

HFI's persuasion tools make for a long list. Our PET design course provides these tools to help you design websites that fulfill users' needs and meet business goals. HFI's persuasion techniques include influence methods to make a product or service appear particularly appealing. We cover the triggers that can be fired off to make people commit and take action. Ultimately, the goal is to create "fanatics" about your company and brand, with an urgency like that displayed by shoppers fighting over items in Filene's Basement.

Usability specialists wondering if PET design is for them should be aware that it does require a whole new skill set. While based on the user-centric perspectives that usability experts already have, these scientific methods for persuasion design are new. However, if PET design doesn't feel like a good fit, there will always be a role for classical usability designers, just as there is for hardware engineers and coders. What I attempted to address in this paper though, is the greatly added value that designers can offer their company by adding persuasion skills to their toolkit. Because the next wave of the Information Age is designing for persuasion, emotion and trust.

Ethics and responsibilities of PET design

Some people have asked: "With usability work, I feel like I'm just enabling people to do things. If I do persuasion work, am I manipulating them to do wrong things?"

The answer is that persuasion can be used that way. At HFI, we've agonized for years about whether or not we want to teach persuasion and who we want to teach it to. But it's something that's also a challenge when you do classic usability work.

Would you do usability work on a gun? Would that make you responsible for killing? Would you do usability work on a nuclear device? You may be thinking "No, I wouldn't do that." But it's not so obvious. Improving the usability of nuclear weapons could help prevent them from being set off accidentally. We have to think about our profession and how we use our tools. Are we helping people or not? PET design can be used to convince people to buy things they don't need (e.g. convince them to smoke). But you can apply it in ways that help people. For example, persuasive design helped convince a large African population to use soap after going to the toilet and saved tens of thousands of lives. PET design is a tool that you have to decide how to use in a way that's right... so use it properly and do the right thing.

Conclusion

In summary, we've explored the following concepts:
› designing for persuasion, emotion, and trust (PET design) is the 4th wave of the information age
› persuasion objectives align with measurable business goals
› to create an engaging user experience, you must understand and address emotion's role in decision making
› sometimes PET design contradicts classic usability principles (remember the shopping mall layout analogy)
› PET design principles are based on scientific research and go beyond traditional advertising techniques because of the interactive online environment
› Persuasion design is a tool that must be used responsibly

At HFI we're incredibly excited about the burgeoning field of persuasive design. In fact, I've even started a new blog specifically dedicated to the topic, called *Usability Is No Longer Enough*. I invite you to share your ideas and feedback there.

If you'd like to learn the complete range of PET design methods and techniques, check out our newest training course: *How to Design for Persuasion, Emotion, & Trust*.

About the author

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Dr. Eric Schaffer is the founder and CEO of Human Factors International, Inc. (HFI). In the last quarter century, he has become known as the visionary who recognized that usability would be the driving force in the "Third Wave of the Information Age," following both hardware and software as the previous key differentiators. Like Gordon Moore's insight that processor power would double every 18 months, Dr. Schaffer foresaw that the most profound impact on corporate computing would be a positive online user experience—the ability for a user to get the job done efficiently, easily, and without frustration.

Dr. Schaffer's book *Institutionalization of Usability: A Step-by-Step Guide* provides a roadmap for companies to follow in order to make usability a systematic, routine practice throughout their organization. Dr. Schaffer also co-developed HFI's Schaffer-Weinschenk Method™, the only ISO-certifiable process for user-centered design, built on principles from human-computer interaction, ergonomics, psychology, computer science, and marketing.

Dr. Schaffer has completed projects for more than 100 Fortune 500 clients, providing user experience design consulting and training. He has recently been traveling the world teaching HFI's newest course, How to Design for Persuasion, Emotion, and Trust.

Dr. Schaffer is a member of the Human Factors and Ergonomics Society and a Certified Professional Ergonomist.

Acknowledgements

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