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white paper

CREATE MEASURABLE BUSINESS VALUE BY INCORPORATING USERS INTO THE SOFTWARE DESIGN AND DEVELOPMENT PROCESS

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Making software products and services user-friendly is smart — it creates real business value. A usable product increases user satisfaction and increases productivity. A usable product also leads to brand trust and loyalty. Invariably, a user-centered product will lead to cost savings and profitability. In other words, it pays to design a user interface the right way. But most software development managers view usability costs as added effort and expense. Ironic considering product companies will have to spend considerably more to provide training and customer support after the product has been released.

Too many companies have learned the hard way. In fact, we see telling signs of this everywhere. As predicted by *FierceWireless*, the wireless industry's daily monitor, "2007 will see a greater emphasis on helping customers better interact with devices and content. Easy discovery is the name of the game. If a customer can't find what they are looking for, they simply won't use a service."ⁱ Revenue has been left on the table due to poor software navigation and information architecture. The same applies to any software feature. Users want simplicity. As soon as they come across a UI barrier, they don't climb or jump over it — they don't have the time or patience. Users simply ignore it and move onto something else.

For example: "One airline's IFE (In-flight Entertainment System) was so frustrating for the flight attendants to use that many of them were bidding to fly shorter, local routes to avoid having to learn and use the difficult systems. The time-honored airline route-bidding process is based on seniority. Those same long-distance routes have always been considered the most desirable. For flight attendants to bid for flights from Denver to Dallas just to avoid the IFE indicated a serious morale problem." (Cooper, 1999)ⁱⁱ

A usable user interface can shape the user audience's perception of a company, affecting overall *brand* value and market share. This intangible benefit — similar to automobiles, stereo systems, and other hardware products — may determine the perceived 'quality' of your company's software product or product line. Close to 15% of the space in reviews published in trade magazines, journals, and national newspapers is devoted to user friendliness or usability of software (Nielsen, 1993)ⁱⁱⁱ. Media giants such as *The New York Times* and the *Wall Street Journal* publish weekly columns that evaluate software (Bias & Mayhew, 1994)^{iv}. *Info World* devotes between 18% and 30% of its software review articles to ease of learning, ease of use, and quality of documentation (Nielsen, 1993)^v.

For example: “When systems match user needs, satisfaction often improves dramatically. In a 1992 Gartner Group study, usability methods raised user satisfaction ratings for a system by 40%.” (Bias & Mayhew, 1994)^{vi}

Users are constantly demanding usable products as evidenced the day Apple announced plans for its new iPhone. “It’s like they (Apple) read our minds,” said David Myers, executive chef at Sona restaurant in Los Angeles and chief executive of Food Arts Group, whose staff uses the Treo smartphone from Palm. “This is the next step in not accepting poor design any longer.”^{vii} The best promoters of your brand are satisfied users.

Avoid user barriers by starting earlier in the software design and development process. Software design decisions are typically made during the first 10% of the design and development process and can determine 90% of a product’s cost and performance (Aaron Marcus and Associates)^{viii}. Therefore, incorporating usability techniques upfront can help keep the product aligned with company goals. Software products that have been created utilizing a user-centered design process can return many benefits, internal or external including:

INTERNAL ROI

- Increased user productivity
- Decreased user errors
- Decreased training costs
- Savings gained from making changes earlier in design life cycle
- Decreased user support

EXTERNAL ROI

- Increased sales
- Decreased customer support costs
- Savings gained from making changes earlier in the design life cycle
- Reduced cost of providing training, if training is part of your company offering (Bias & Mayhew, 1994)^{ix}

The benefits of a well-designed user interface can be achieved throughout the evolution of a product. By applying usability techniques to the production process, developers can make them more efficient, which, in turn, can uniquely benefit the product’s life cycle. Efficient development methods can result in a faster release date allowing manufacturers to unveil their products to the market prior to a competitor’s. A user-centered product can garner positive media reviews leading to increased sales. An effective, user-friendly user interface can increase customer ease of learning, ease of use, job satisfaction, and trust in the product.

Cost-benefit analyses consistently show healthy returns on the dollars invested in usability. As more companies understand the significant benefits of usability and do careful cost-justification, usability techniques will become standard.

To learn more about achieving healthy returns utilizing usability design practices, please contact:

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ⁱ FierceWireless : The Wireless Industry's Daily Monitor. (January 2, 2007) *2007 Predictions: Intuitive navigation is the name of the game.*

ⁱⁱ Cooper, A. (1999). *The inmates are running the asylum: Why high-tech products drive us crazy and how to restore the sanity.* Indianapolis, Indiana: SAMS

ⁱⁱⁱ Nielsen, J. (1993). *Usability engineering.* San Francisco: Morgan Kaufmann.

^{iv} Bias, R. G. & Mayhew, D. J., (Eds.) (1994). *Cost-Justifying Usability.* San Francisco: Morgan Kaufmann Publishers.

^v Nielsen, J. (1993). *Usability engineering.* San Francisco: Morgan Kaufmann.

^{vi} Bias, R. G. & Mayhew, D. J., (Eds.) (1994). *Cost-Justifying Usability.* San Francisco: Morgan Kaufmann Publishers.

^{vii} InformationWeek Daily Newsletter. (Jan. 10, 2007).

^{viii} Marcus, Aaron, (2002). *Return on Investment for Usable User-Interface Design: Examples and Statistics.* Aaron Marcus and Associates, Inc.

^{ix} Bias, R. G. & Mayhew, D. J., (Eds.) (1994). *Cost-Justifying Usability.* San Francisco: Morgan Kaufmann Publishers.