Using Mash-ups to Increase Participation in the Experience Design Process

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ABSTRACT
Mashups are a continuation of the trend of distributed content creation and delivery that characterizes the Internet. Well-constructed APIs allow people to quickly and easily generate new experiences, lowering the barrier for entry into creative tasks. Instead of confining experience design and creation to small, specialized teams, mashups have the potential to involve larger, more diverse, and more distributed populations in large companies in the creative process, resulting in better products, shorter time to market, and a greater uniformity of vision.

Large companies, like Intel, are commonly split into several distinct portions, each with their own focus. It's almost guaranteed that the user experience research and design teams will be dwarfed by the manufacturing, marketing, and financial teams, potentially presenting very significant obstacles to success. For instance, a key feature may be cut at the last minute to hit a deadline because the manufacturing team didn't understand that the feature was critical to the overall experience. By involving the manufacturing team in the experience creation and design process they would understand and value the features that are crucial to the end product, and be able to make better decisions.

Intel and other silicon companies face a unique set of circumstances. Technological advances in silicon processing bring an irresistible bounty of promises –high product performance, lower power consumption, higher volume and lower product cost. Because of the competitive nature of the industry and the benefits of improving the manufacturing process it is critical to a company's health to improve their process at least as fast as their competitors.

The flip side of the coin is that each new generation of production rises exponentially in cost. Companies such as NVIDIA, ATI, and others often to stay a generation behind the cutting edge to be able to cope with the facility costs. Companies like Sony, Toshiba and IBM that want to stay on the leading process are forced to enter cooperative partnerships to divide the investment. So, Intel remains alone and on the cutting edge, and as a result there is an inescapable urgency in the vast majority of the company that deals with silicon manufacturing.

Engineers work on intense schedules and concentrate on highly technical details. As a result, they view the computer of tomorrow in terms of transistor sizes, clock frequencies and memory capacities. While these numbers used to be able to sell computers, they are no longer able to move consumers to buy a new computer. Consumers today don't care about computer specifications, they care about well-designed experiences, as illustrated by the success of products like the iPod and Centrino.

Engineers under intense time pressures to produce technical breakthroughs don't have the time to get involved in ethnography, user needs finding or industrial design, and as a result they become divorced from they experience they are ultimately delivering. Trying to include a engineer in the design process would, at best, result in the engineer taking a passing interest before dropping the effort for his deadlines, and at worst result in the engineer belittling the user-centered-design process.

Mashups present an opportunity to quickly and easily give engineers a sandbox to play in. Such an environment would have a very low barrier to entry, giving engineers several sets of data to design and share experiences with. While we have no experience providing mashups to engineers, they are eager for ways to understand user needs. The field blogs of our researchers and ethnographers are in high demand by the engineers, and we hold regular prototype product demos that are highly attended. Engineers get very excited at the visions we present, and are quick to suggest enhancements and new directions.

With a well designed mashup the engineers could produce and share new experiences rapidly and easily across the company. The best experiences could be further refined to suit user needs by the design team, and also internally distributed to educate the employees on the company's direction. A more knowledgeable workforce will have a better and more uniform understanding of the consumer's needs, increasing the quality of desirability of future products.

Large companies suffer from a distinct segregation between those who design products and those who make them, which can result in products undergoing unnecessary, detrimental changes on their way to market. Mashups present an opportunity to involve a much larger portion of the company in the design process, leading to a broader set of ideas to develop and a better understanding of consumer needs throughout the company. Efforts should be made to provide easy-to-use, well-designed mashups to the entire workforce so that they can participate in and understand the design process.