

MSN Design Innovation Process

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ABSTRACT

In the past, designing web-based products and services has centered on the *technology* that was rapidly being created. However, the web user expectations have now changed.

The design process needs to make a fundamental shift from technology driven design to user center, customer centered design. This means shifting from the ‘how’ to the ‘why and what.’ In order to bring about the next level of meaningful innovation, a new Design Innovation Process needs to be defined. It needs to be a process that adds depth and focus to questions left unanswered by a non-integrated (more traditional isolated straight qual or isolated straight quant) approach to research and design, and include those places where ‘real people’ are: home, work, commuting, travel stops, etc.

The design process must provide an underpinning for strategy and vision, and provide for the development, prioritization and refinement of scenarios and features. The integrated (qual AND quant) customer research must identify and be heavily grounded in customer trends, values and behaviors *at the beginning of the design & development cycle* rather than post- or mid-development.

Outlined in this paper is the process that is proving to be successful for the launch of a new user interface for the worldwide web. This research supported design brings with it customer centered innovation, products, and services.

Author Keywords

User-centered design, design process, aggregated research approach, design innovation.

ACM Classification Keywords

H5.2. User-centered design

INTRODUCTION

Innovation on its own can be valuable to open up new thinking. However, to become a ‘sticky’ site and attain successful mass adoption, the innovation must be grounded in, and geared to, customer needs, values, and behaviors.

Creating products and services that resonate with the customer, that fill the wants and needs of consumers and that create loyal returning customers is what we’re all aiming for, and that rarely happens serendipitously. It’s a simple principle: to create a product or service that consumers love, you must first understand those customers on the most fundamental level.

A key goal of the MSN Customer Design Center (CDC) is to experience the world of technology from the customer’s perspective. In what scenario is the customer using technology – what are the goals they are trying to meet by using web? And what are the goals they are trying to meet off the web because it’s easier or because there is no current integrated solution to help the customer meet the goal? It takes an aggregated research approach and process that incorporates the real voice of the customer heavily at the outset, and then repeatedly throughout the design and development cycle.

SHIFTING QUALITY EXPECTATIONS

Designing web-based products and services for ‘real people’ must be based on the fundamental insight that there is a global values shift in quality expectations, ease of use, and fun seeking which must be addressed with innovative, integrated web products and services. *There is little room for error: quality, reliability, & usefulness are expected. There is little tolerance for products that do not perform to the level that customers expect and imagine.* There is an expectation that technology will work as people want it to. However, technology is not meeting this expectation, even when the expectation is feasible. In consumers’ minds, the old paradigm of “What you see is what you get” is a given. This old paradigm is beginning to be replaced by “What you imagine is what you get.”

Customers have already embraced the web to the degree that the distinction between ‘real’ (offline) and ‘virtual’ (online) no longer applies. For example, communication is no longer thought of as ‘online’ (email, IM) or ‘offline’ (phone, in person) but rather as simply ‘communication.’ Web users are ready to move from the existing, insular web products and now embrace the next generation of ‘safe

possibilities.’ They are open to, and more and more aware of, new possibilities. To meet this need, and to recognize and understand how to build new web products and services that allow the customer to feel safe but not limited or restricted. The product design must be firmly grounded on customer research, values, and behaviors from the very beginning of the design process.

Technology and consumer brands in general, are expected to deliver the experience that the consumer imagines they will get. Being a reliable, good product is considered to be a given; customers are now looking for the experience with the brand or product that connects to them with their imagination, their dreams in a very pragmatic way.

In the consumer world, people already are assuming that mobile service is available everywhere they are and express keen annoyance when it isn’t. They expect a search engine to return the appropriate links for what they *meant* to type or search for, and they expect a website to be up and running smoothly when they need or want it. More than just what they are *seeing*, customers are looking for an *experience* that matches what they imagine the experience should be. We see people with little spare time to just surf the web. Rather, they tend to be task oriented (check email, check news/weather, play a quick game) and expect to be able to quickly complete these tasks with little or no fuss. It’s all about the experience, and the experience must meet the customers’ needs, wants, values, and expectations.

AN INTEGRATED RESEARCH APPROACH

Effective design must be based on a solid foundation of customer research. We start with deep ethnographic research – global field research that observes people in their own environment, where the activities the participants choose to do have meaning and a direct impact on their daily lives. We look for global themes and trends, aspirations, often unarticulated needs and values. As these themes emerge through the *qualitative* research, we study and analyze current *quantitative* click stream data, as well as conduct the more traditional surveys and lab focus groups. This integrated approach allows for the key themes to be seen in scale overall, as well as surfaces the task level behavior.

The integrated research and design approach is a collaborative effort across the division, and inclusive of the quantitative and survey/focus group work being done by other researchers. This multifaceted set of data tells us about ‘what’ is being used today so that we are more informed when we go into the field in search of the ‘whys.’ We can see what customers are doing with what is online now, and look for unmet goals and aspirations to build towards.

Research-based Design Innovation

Once the integrated research is completed and analyzed, the Research team begins working with the Design Research team. The combined team translates the field and research findings into customer goal driven scenarios, and from there the Design Researchers move through the concepting & ideation phase into wire frames and/or prototypes that the usability team can test in the lab setting.

We listen and learn *from* the customer, design *for* the customer, test concepts and products *with* the customer and then refine the design and listen some more as needed. Our focus is the user experience: what does *the customer* want out of the product, why and how are they using it? What customer goals are not being met or how can we make the user experience on current products be superior to our competitors? The ultimate aim would be to have our products and their user experiences meet the customer need so well that they become a reflex – ‘I need/want to do <this> so I’ll go to this site.’

OVERVIEW OF THE DESIGN PROCESS

Incorporating the composite, aggregated research into all phases of the design process helps insure that the design and resultant products stays firmly grounded on the needs and wants of the customer. An end-to-end design process can be delineated as follows:

Defined process: 3 Phase Overview

Phase 1: Strategic Design-Exploration

- Deep dive into requirements, customers
 - Global field Ethnographic research
 - Click stream analysis
 - Survey and/or Focus Groups as needed
- Research into currently available products
- Creative scenario exploration & development

Phase 1: Strategic Design-Strategy

- Visually define the Scenarios created in the Exploration phase
- Value Proposition (both lab and in field)
- Integration of Scenarios
 - Define how the product addresses the Scenarios
- Conduct Usability Research & Analysis on the directional screenshots

Phase 1: Strategic Design-Requirements

- User Experience feature list and specs
- Costing & Resource plan

Phase 2: Strategic Design-Architecture

- Task Analysis
- User Flow
- Wire frames
- User Interaction
- Inductive User Interface Analysis
- Usability Research & Analysis
- Quality Bar Definition
- Implementation Plans

Phase 2: Strategic Design-Interface Design

- Look/feel exploration and implementation

Phase 2: Strategic Design-Production

- Deliver final:
 - Visual specs and assets
 - User Interface text
 - Error case text
 - Help topic list
- Usability Analysis
- Quality Bar Check

Phase 3: Strategic Design-Stabilization & Launch

- Triage/Solve User Experience issues
- Help topics
- Localization
- Collateral
- Quality Bar Check

Phase 3: Strategic Design-Post Launch

- Usability Analysis
- Hot Fixes
- Post Mortem
- Archiving

So what have we learned along the way? Some key practical practices greatly help studies be successful, and lead to innovation based on what is closest to the human heart. Simple as they may sound, they have made our life as researchers and innovators much smoother and have led to a solid, creative basis for innovation:

- 1) Go where the people are...and they're scattered.
 - a. Coffee shops
 - b. Commute vehicles (Ferry system, Light rail, metro bus, etc.)
 - c. College campus's
 - d. Public spaces such as Libraries
 - e. Emerging market places such as the highly wired US Truck Stop
- 2) Know the rules and expectations of the environment.
 - a. When conducting ethnographic, observational research in non-traditional arenas, know if the proprietor will welcome you or not. Observing people is generally fine, interacting with patrons may not be. Videos and cameras are rarely welcomed without first gaining the permission of the proprietor, and are most often not allowed. Keep in mind that the populace in question is the proprietors' customer base even before they are your customer base.
- 3) Do a recon if possible to observe what the norm is for that environment. Ideally, do several recons, varying the day of week and time of day so observe any customer patterns and the rhythm of the environment. These time patterns are a data set of themselves and often surface 'Familiar Stranger' data.
 - a. Return to the environment after the study for one more observational time period. Verify that what you first observed is a continuing pattern; clarify any questions raised when you analyzed the first data set.
- 4) Look for the "So what."
 - a. Take the experience of the participant and use it upfront in the design process.
 - b. There is a massive shift going on and we're moving from a product & services economy into an experiences economy.
- 5) Ask participants to take you along on a 'light up moment' or activity
 - a. See how people rejuvenate themselves, what they do for fun and to make themselves smile. Those experiences are golden.
- 6) Be ready to switch modes.
 - a. Observatory ethno may be the goal, but what happens if the participant irons the family clothes for 4 hours while you are there? Having a very carefully selected set of interview questions can be invaluable and make the most of the moment.
- 7) Watch the local holiday schedule.
 - a. When conducting global field work, be aware of the local customs and holidays, and their resultant shifts in behavior patterns, daily routines, attitudes, and often stress. Accommodate China's and Malaysia's use of the lunar, not the western, calendar. But don't always discount holiday times as poor research times. Knowing the variations and activity spikes are informative as well as 'normal' day data.

SUMMARY

An Integrated Research and Design Innovation approach has impacted product development by creating observation-based insights into the technology world from a user-centric perspective. It adds depth and focus to questions left unanswered by a non-integrated approach to research and design; it provides an underpinning for strategy and vision, and it provides for the development, prioritization and refinement of scenarios and features. The next level of web innovation will be firmly grounded in customer needs, values, and behaviors, resulting in successful products and services.

Research is an investment that can ultimately save both capital cost and time cost further down the development cycle. Implementing a Design Innovation Process that has a solid foundation in customer centric research at the outset can focus the team initiatives, drive innovation, feature design and prioritization. In theory, this customer insight and design process should help prevent working on the wrong innovations, and help focus on ones will create commercially viable products that meet the customer need or want.