

Engaging and Adaptive: Going beyond Ease of Use

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Abstract. Making products and services easier to use is a durable goal, yet will likely be insufficient to meet the expectations of a new generation of customers. This paper suggests “ease-of-use” be augmented with the goal of being “engaging and adaptive” for products, services, and the overall experience people have with organizations that provide them. Being intentional and using design thinking can be used to deliver engaging and adaptive experiences to customers around the world.

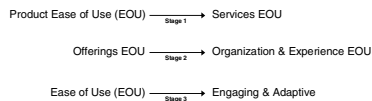
1 Introduction

Making products and services easier to use is an accepted goal of human factors and ergonomics professionals. It is also consistent with the practice of universal design. The call for ease-of-use is now being extended to all managed interactions with companies, creating intentional points of contact and designed customer experiences [1]. This progress is welcome and needed to make products and services more accessible to greater portions of humanity.

That said, there is a new customer on the horizon that will have a dramatically different set of expectations. A lowest-common denominator version of interactions, out-of-box impressions, and usage experiences will not be sufficient for this emerging customer.

They will want: engaging and adaptive...
... not just easy to use.

Progression of Ease of Use → Emergence of Engaging and Adaptive



Engaging = focuses attention and creates flow energy

Adaptive = changes with customer expertise and needs

“A feeling of control, a good conceptual model, and knowledge of what is happening are all critical to ease of use,” says Donald Norman about products. “When is something difficult? When the controls and actions seem arbitrary, when the system can get itself into peculiar states, peculiar in the sense that the person does not know what it is doing, how it got there, or how to recover.” [2]

During the first stage progression of ease-of-use, learning from product development and customer requirements is now applied to service engagements. Companies make investments in designing service engagements that meet or exceed customer expectations. The notion that the organization should remember the customer becomes known and visible at this stage.

Gerald Zaltman in his book How Customers Think outlines misconceptions that drive managers to “make some predictable errors that can destroy even the most carefully thought-out product launch. These errors fall into three categories: mistaking descriptive information for insight, confusing customer data with understanding, and focusing on the wrong elements of the consumer experience.”[3]

During the second stage progression, all offerings (products, services, and customer interactions) are being considered for intentional interaction design. The transformative step is recognition the organization itself needs to be easier to use and more approachable for a variety of constituencies to thrive and help drive the survival and success of all economic actors. Here the total organization experience becomes an imperative.

In the chapter “The Customer is the Product,” in the Experience Economy, the authors say “the experiences we have affect who we are, what we can accomplish, and where we are going, and we will increasingly ask companies to stage experiences that change us.” Joe Pine and Jim Gilmore continue, “human beings have always sought out new and exciting experiences to learn, grow, develop and improve, mend and reform. But as the world progresses further into the Experience Economy, much that was previously obtained through noneconomic activity will increasingly be found in the domain of commerce.”[4]

In stage three, the interaction landscape changes and ease-of-use itself becomes a less relevant idea in achieving customer satisfaction, loyalty, and overall competitive advantage. Ease-of-use eventually becomes a source of dissatisfaction if it means creating a lowest common denominator experience for all customers and constituencies wanting to do business with the organization.

Engaging as an imperative is what we’re inheriting from a generation of mobile device users that want to be engaged – resulting from habitual use of instant messaging, twittering, online social networks, and other forms of instant information feedback with emotional content and gratification. It is also being driven by the generation that grew up with video and computer games and new definitions of fun, time, and interaction.

Adaptive is also what we need to reach this new generation of emerging customers, employees, suppliers, and business partners. Adaptive is both a frame of mind – and a set of procedures, practices, and application of technologies to continually change the context of how we engage in ways that are meaningful to customers and constituents.

2 Instructions as Stories

Instruction manuals are essentially stories.

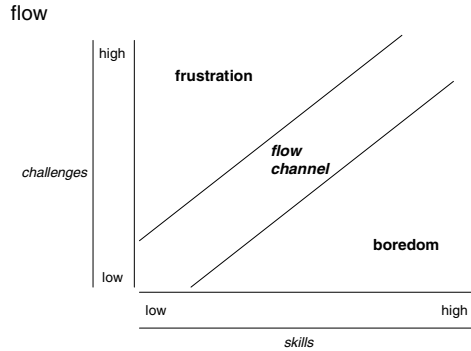
How do I use this?

How do I put this together?

How do I get there?

For the first-time user, a set of really easy instructions will be appropriate. Yet what are the right instructions set for an experienced user? Will the new generation of customers be satisfied with reading the same story they read last time?

Mihaly Csikszentmihalyi suggests in his book Flow that optimal experience is achieved in a zone that drives focus and attention that exists between the emotional poles of frustration (what Csikszentmihalyi calls anxiety) and boredom.[5]



Visual adaptation of Flow: The Psychology of Optimal Experience by Mihaly Csikszentmihalyi, Harper & Row, 1990, pg. 74

Flow is a good guide to the instruction manual of the future.

For products it would have some of the characteristics of games, including some of the emotional characteristics identified by XEODesign to keep customers in an early and engaged flow state (see sidebar). For instance, in the case of electronic devices during the out-of-box, set up, and other first-impression tasks, the touch-points would be intentionally designed to meet the skill level of the customer. It would “inherit” the known skill level of the owner from the previous device interaction history.

For services the organization would have a clear understanding of customer behavior and interaction history. For instance, they would know if a customer has a tendency to be “reactant.”[6] When a course of action is suggested, a reactant personality will want to reject that direction; which calls for a different approach to service upgrade suggestions or mid-course contract corrections.

For organizations themselves...

...it is focusing the attention of key constituencies on the ideas and activities that will replicate the memes that sustain survival and health. It is getting more people in the flow channel of an intentionally adaptive and engaging organization experience.

“Attention is like energy in that without it no work can be done...”

“Some people learn to use this priceless resource efficiently, while others waste it. The mark of the person who is in control of consciousness is the ability to focus attention at will, to be oblivious of distractions, to concentrate for as long as it takes to achieve a goal, and not longer” says Csikszentmihalyi.[5, pg. 31]

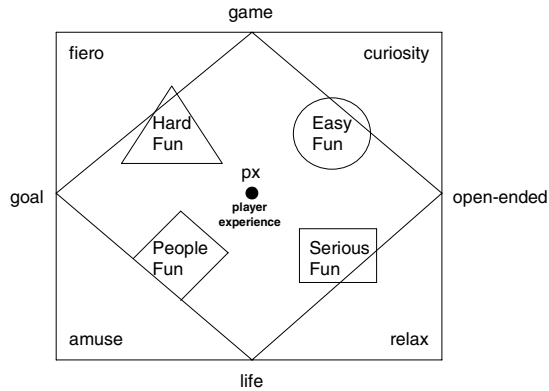
2.1 Emotion without Story (Sidebar)

XEODesign under the leadership of Nicole Lazzaro conducted research based on player experience from video and computer games in 2004.[7]

XEO created a framework showing how games create engagement, what makes them self-motivating activities without the need for a story. Lazzaro identifies “four keys to emotion without story,” using these criteria: “1. What Players Like Most About Playing – 2. Creates Unique Emotion Without Story – 3. Already Present in Ultra Popular Games – 4. Supported by Psychology Theory and Other Larger Studies.[7, pg. 3]

Here is the resulting “4 Fun Keys” model:

The 4 Fun Keys



The 4 Fun Keys model visually adapted and reprinted with permission, XEO Design,© Inc.

“The Four Keys unlock emotion with:

1. **“Hard Fun:** Players like the opportunities for challenge, strategy and problem solving. Their comments focus on the game’s challenge and strategic thinking and problem solving. This “Hard Fun” frequently generates emotions and experiences of Frustration and Fiero (personal triumph over adversity. The ultimate game emotion. Italian).
2. **“Easy Fun:** Players enjoy intrigue and curiosity. Players become immersed in games when it absorbs their complete attention, or when it takes them on an exciting adventure. These immersive game aspects are “Easy Fun” and generate emotions and experiences of Wonder, Awe, and Mystery.”
3. **“Serious Fun** (previously ‘Altered States’): Players treasure the enjoyment from their internal experiences in reaction to the visceral, behavior, cognitive, and social properties. These players play for internal sensations such as Excitement, or Relief from their thoughts and feelings.
4. **“People Fun** (previously ‘The People Factor’): Players use games as mechanisms for social experiences. These players enjoy the emotions of Amusement, Schadenfreude (gloat over misfortune of a rival. Boasts about player prowess and ranking. German.), and Naches (or Kvell, the pleasure of pride at the accomplishment of a child or mentee. Kvell is how is feels to express this pride in one’s child or mentee. Yiddish) coming from the social experiences of competition, teamwork, as well as opportunity for social bonding and personal recognition that comes from playing with others.

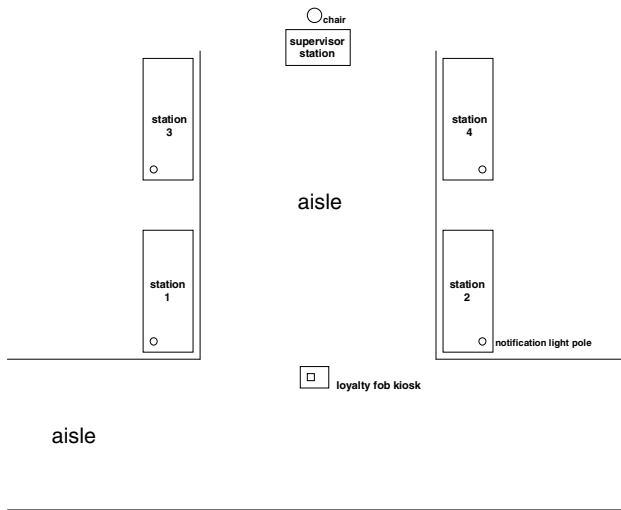
Scenario 1: Checking Out

During an ethnographic study of retail customers while at IBM, we observed and interviewed people in a variety of settings. One of them was the self-check-out area of grocery stores. One study participant told us he gets frustrated being behind a novice that's never used the system before. "There should be a line for novices, and a line for experts," he told us.

While it turns out laying out the store this way is impractical, let's consider the request for a moment. What he's asking for is a really good idea. How can we make the store more engaging and adaptive to this stated need?

First, the store has to know if you're a novice or an expert or somewhere in-between when you're queued for check-out. Put a standalone scanner in front of the self-check-out stations in the store and scan or swipe your store loyal card. This action calls up your record in the store computer system – and let's the self-check-out area knows if you've used this part of the store before along with the heuristics of use (previous usage behavior: speed of use, mistakes, etc.).

self-check-out scenario



Scenario: A light flashes on pole letting you know that this is the next station ready for you and has loaded your background and preferences. The system greets you by name. If you've never used the system before, it takes the time to walk you through the self-check-out experience. If you're an expert, it bypasses many of the novice queues and instructions (something akin to the speed prompts available on many corporate phone answering systems). This makes the self-check-out area more adaptive.

Using some of "Fun Keys" discovered by Lazzaro, we can also make it more engaging – more like a game. Do you want to get better at the check-out task? For example, tell the system you want time your check out and beat your own previous record. Make checking out on your own less of a chore and more of a game.

Scenario 2: The New Mobile Phone

After months or years of use, a mobile phone should be constantly learning about you and your preferences. It should be building up a digital personality that can be transferred to the next device you own and immediately adapt to your needs – and engage you with new features and functions that take you to the next level of user experience.

For instance, my current phone should know about my voice and text message preferences – know my type-ahead patterns, and pattern mistakes with workarounds. In addition to transferring my address book, the web bookmarks, use information and “digital personality” should transfer forward to the new device.

It should keep you in the flow channel of an optimum out-of-box experience with the new device, bypassing known information that would lead to boredom, and not revealing all new functionality at once that would create frustration.

My phone has an instruction manual that runs 220 pages long. I have surely not discovered all the things it can do, yet it does not engage me in ways to discover new functionality incrementally to continually delight me with the user experience. This is the challenge for mobile device manufacturers and telecommunications carrier partners – to create complete mobility systems that are engaging and adaptive – to meet the needs of a new generation of interactive and game-savvy customers.

2.2 Edible Food vs. Memorable Experiences (Sidebar)

By: Kelly Tierney
Experience Designer & Strategist
IBM Corporation

Having easy to use as the pinnacle of a good customer experience is a bit like a restaurant declaring their goal to be edible food. Memorable experiences, the kind that transform your customers into evangelists, are engaging because they include epochs, rewards, and often a level of challenge – the same elements that are used to create great gaming experiences.

Designer Games, often called Eurogames, are uniquely qualified to help illustrate the elements of great experience design. Their success and longevity is solely based on the quality and richness of the experiences they deliver. They have five unique qualities that are key elements of great experiences. They incorporate very little luck - the players are in control. The players choose their own strategy – each experience is unique. The games are challenging without being discouraging – the system is built on rewards. No player has an advantage – everyone is encouraged to be equally engaged throughout the experience. They take commitment to teach and learn – knowledge share is a part of the pleasure. These elements combined create a journey that ebbs and flows delivering uniquely satisfying experiences for all players.

Other types of games deliver very different experiences. They sometimes focus less on a unique journey but rather rely on luck and the personality of the players to determine the quality of the experience. These games which deliver an unexceptional experience are a lot like the generic airlines: Delta, Continental, and Northwest among a few. When they merge or go bankrupt it goes nearly unnoticed. They deliver a flat experience rather than a journey made to ebb and flow, each customer is a commodity like a box to deliver.

In contrast Designer Games deliver engaging and adaptive experiences that reward the participants, creating a unique experience for each player. The SouthWest airline experience could be compared to this. Each customer is in control of their queue placement and ultimately their seat placement. This creates a slight element of competition and reward. Each flight is unique with the flight crew enabled to deliver an adaptive and special experience each time. To build on this and create more customer evangelists they could reward the ‘players’ who are behind. If they were to add an advantage, even if small, to those who queued further back they would have a unique reward dynamic creating an incentive and perception of winning even for those in the back of the line.

Even very popular services like Facebook and LinkedIn could be forgotten tomorrow unless they, like SouthWest, put a higher priority on the customer journey. These types of networks have been slow to incorporate meaningful interactions and a sense of challenge and reward. Third party applications are pasted on to fill this void, but ultimately these networks remain at their core directories and email forwarding services. If however they took cues from customer focused products and services, like Designer Games, making the customer journey integral to their mission these companies that would be capable of delivering uniquely satisfying experiences, ensuring their longevity and relevance.

Here is further information on Eurogames/Designer Games:

- [http://en.wikipedia.org/wiki/Eurogames_\(tabletop_games\)](http://en.wikipedia.org/wiki/Eurogames_(tabletop_games))
- http://www.economist.com/world/europe/displaystory.cfm?story_id=12009728

Applying Design Thinking to Your Organization

“Design is about making intent real.

“There is plenty of unintentional to go around.

“When you design, something new is brought into the world with purpose.”

[1, pg. 8]

That’s how I started an article with co-author Ron Smith, titled “Unleashing the Power of Design Thinking” during the summer of 2008. What we wanted to convey is intentional design methods can be usefully brought to bear all kinds of business decisions.

We say, “In an age of renewed interest in innovation, we suggest the cultivation of a new generation of design patrons who want to collaborate with designers in a new way – business patrons who want to move design strategy and design methods into the mainstream of business thought to accomplish business goals. These patrons would be going to designers not just to acquire the output of well-integrated design, but also use design methods to make business itself more intentional.”

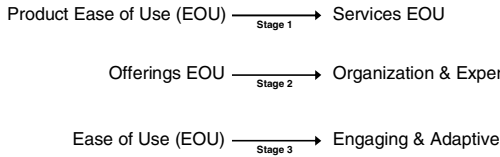
We documented ways design thinking is being used to solve real business challenges at IBM – including how new employees are recruited – and the experience clients have when they come visit IBM for business briefings.

“We believe design should move beyond its traditional boundaries to grow (and)...design thinking can help any profession solve problems in innovative ways.”

Scenario 3: The Organization Instruction Manual

If we remember what was said at the outset about stage three:

Progression of Ease of Use → Emergence of Engaging and Adaptive



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...you would want to move from merely making your offerings and company easier to use, and make everything you do more engaging and adaptive to meet the needs of an evolving customer marketplace.

To make this real for the organization itself you would need an engaging and adaptive “instruction manual” to navigate the capabilities of the enterprise. This would be a good metaphor to drive future web design for organizations of all types.

Does your “organization instruction manual” on-line tell a compelling and useful story about you?

Does it tell you how to use your company and navigate your richness?

Does it show you how to put together the product or capabilities you need?

Does it show you how to get there?

Does it remember you so it adapts to your needs over time?

Can you apply some of the engaging features of “emotion without story” to punch up some of your web site capabilities so it draws in customers in ways that are more like interactive and adaptive games than simply catalogs of information?

For the first-time someone doing business with you or landing on your web site, a set of really easy instructions will be appropriate.

For people who do business with you regularly or visit you on-line often, especially the new generation of customers we’re about to inherit, they won’t be satisfied with reading the same story they read last time. Your site should engage and adapt to their needs on a 1:1 basis, not be designed for the lowest common denominator.

Be engaging and adaptive.

Be intentional.

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