

Digital User Experience Strategies

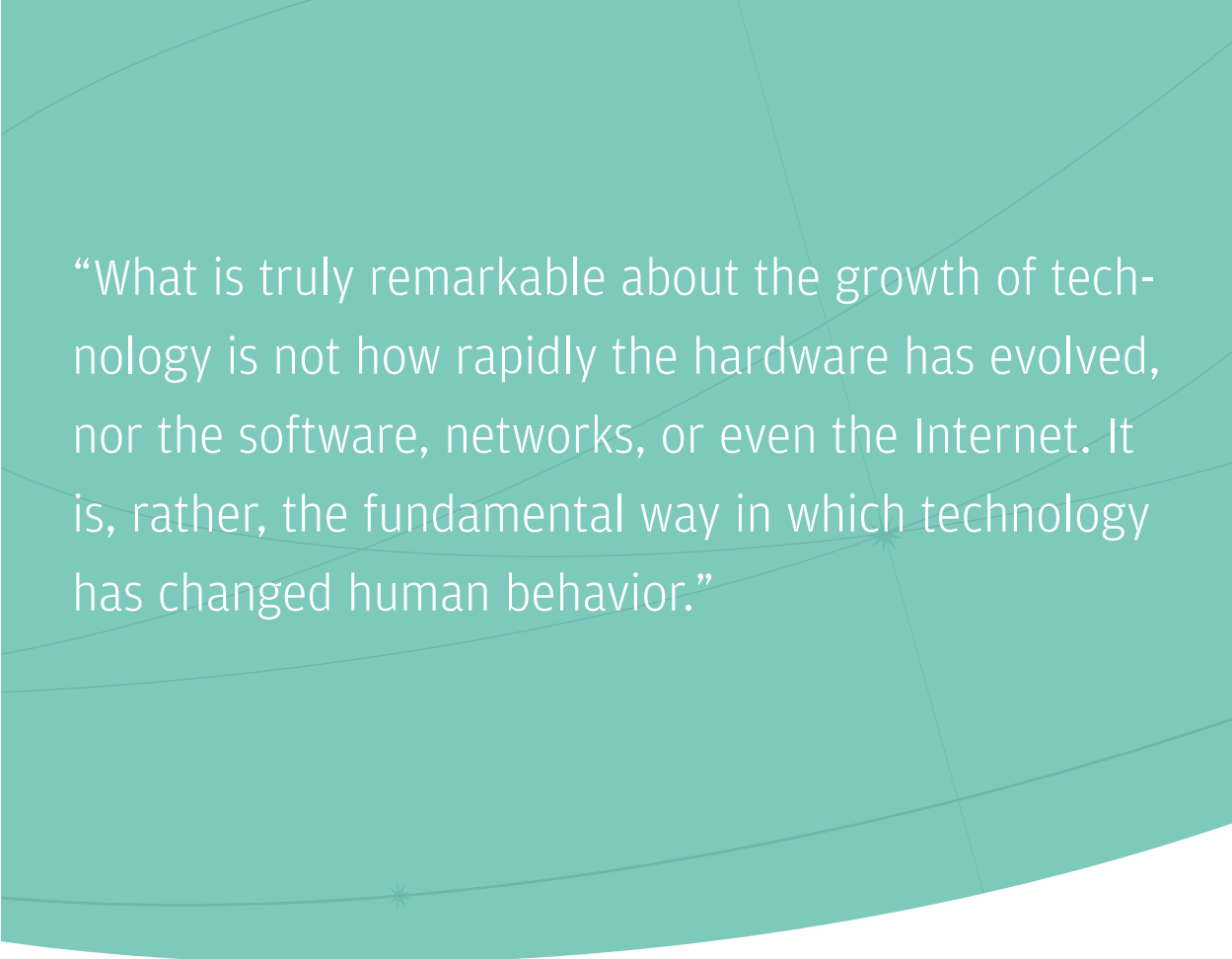
A Road Map for the Post-Web 2.0 World

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White Paper



Human Factors
International



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A road map for the post-Web 2.0 world

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Overview: The user in the driver's seat

The computer has become pervasive and ubiquitous. Computers are at home, at work and in public places. On the go, mobile devices enable constant, multi-media communication. These are unparalleled, exponential times.

Yet what is truly remarkable about the growth of technology is not how rapidly the hardware has evolved, nor the software, networks, or even the Internet. It is, rather, the fundamental way in which technology has changed human behavior.

As much an extension of our selves as our limbs or senses, we have seamlessly adopted technology into the way we interact with the world. We buy online and rate products. We book our own travel. We research medical conditions and treatments through a vast range of medical resources. We bank and invest using sophisticated tools once available only to financial professionals. And we do it without a second thought.

Even the nature of the world itself has changed as a result of technology. Computers are little more than a threshold we step over into an enhanced, digital reality where we consume, share and create content. Copy, images, music, film – ideas themselves – have slipped from the grasp of a few exclusive publishers in agencies and boardrooms. From over 1 billion laptops, smartphones, cameras and digital music players all over the globe come 90,000 blogs, 1 million videos, 3 million Twitter “tweets,” and countless clicks, searches, tags, ratings and wiki edits that reshape the digital universe every day.

These numbers are just a preview, in fact. An estimated 2 billion people will be online by 2010 – if indeed *online* can be said to mean anything anymore. More and more digital users are bypassing land lines and computers entirely, interacting with businesses from a range of new digital spaces. The Internet ecosystem connects more than devices, it connects everything.

We've changed the way we think and share. Once closely guarded, now everybody is putting his or her personal information out on the Web. Social networking sites like Facebook have led this shift in digital values. Personal data is now simply the cost of getting in on the digital conversation. Posting that personal information is the very point of LinkedIn and other professional networking sites, in fact.

These quantum jumps in the use of technology have dramatic implications for your organization. New customers and clients think, act, and interact differently; their expectations continue to change as well. Successful and sustainable organizations must understand, embrace, and act on these changes.

The concerns of usability are more far-reaching than whether your application, site or digital service works. User experience is the way your target audience interfaces, interacts and exchanges with you, your brand, and your online product, and the way your staff interacts with your organization.

In the era of interactivity and user-created content, user experience is changing the very way we do business. There was a time in which digital technologies was just another asset of the enterprise, a tool used to execute strategy developed by management, and delivered to customers. That model has been flipped on its head. As we zoom past Web 2.0 into the realm of Web 3.0, customers are using technology to drive products, marketing and strategy.

If you are a user experience practitioner, it's no longer enough to run usability tests or perform a heuristic review in isolation. By understanding the larger significance and opportunity they represent for the organization, you must become more of a business strategist.

If you are an executive, on the other hand, you must see user experience as something bigger than the where the buttons are on your web page. User experience is more than usability dressed up with some semantic flourish. It informs the most vital, strategic issues your organization will face.

evaluation market opportunity brand testing usability research strategy user experience

Organizations that fail to understand this will lose their way. But winning organizations will understand how and where users are interacting with them, will make that part of their user experience, and will put digital user experience at the core of their business strategy.

Where are you going? And how do you get there?

Any business can mark its territory in this brave new digital world. Your enterprise may already have invested significant resources in a multi-channel online/wireless presence representing multiple business lines. But to maximize those digital assets you need a coherent, integrated strategy. No off-the-shelf, plug-and-play package will give you that.

A digital user experience strategy is the dynamic, ever-evolving result of planning, research and operations. It's much more a journey than a single step. That's why leadership in developing a digital user experience strategy requires visionary cogni-

tion of your goal as well as a clear-eyed, metrics-driven assessment of where you are at every stage in the process.

This paper provides a road map to developing a digital user experience strategy –

- › a vibrant, 360° vision of your user experience strategy that will point every stakeholder in your organization in the same direction
- › a digital assessment to let you know exactly where you're starting from, so that you can measure your progress
- › the “fork in the road” that determines what direction your user experience strategy will take – and the user research, iterative design and development requirements both approaches demand:
 - o will you take the next step in a market you know?
 - o or will your user experience take you into a market you don't know?
- › the standardization and institutionalization of usability that must be put in place throughout the organization to ensure that you reach and stay at your destination

HFI has already followed this road map to successful implementations at major financial and technology enterprises. Our top-down framework captures and aligns executive stakeholder vision to clarify your direction, and then works with customers, employees and other users to give it concrete, actionable form.

Stakeholder visioning: Where do you want to be?

Every digital user experience strategy effort begins with a vision. What do you want to achieve? What will it be like?

In helping an organization establish its digital user experience strategy, HFI first meets with stakeholders in an interactive process to articulate and clarify that vision. That can be a non-trivial endeavor, however – and a revealing one.

Talented as the members of your organization may be, different stakeholders often have different priorities. The user experience goals of any two of individuals may be disconnected. Business units are driven by key performance indicators (KPIs) like lower costs or faster time to market – if they have different KPIs from one another, their user experience requirements will likely be different, as well. The common result is a “siloed,” disconnected approach, not a unified and executable vision that will reach the customer.

Maximizing your digital assets is ultimately not about your website or other digital channels, or their usability. In fact, *your digital user experience strategy is grounded in the culture of your organization.*

In HFI's work with clients, we have repeatedly found that disparity in response to stakeholder visioning is in line with the overall fragmentation of the organization. Organizations that are unified, on the other hand, will have a good connection to the customer. An effective digital user experience strategy starts from within the organization – from the developer or usability practitioner – as much as it does from the senior management at the top. The role of management is to align stakeholders, subordinating KPIs and profit-and-loss statements – no matter how important – to the organization's overarching user-experience vision. Emanating from practitioners within the company, and shepherded by management, the corporate strategy must be "user experience incarnate."

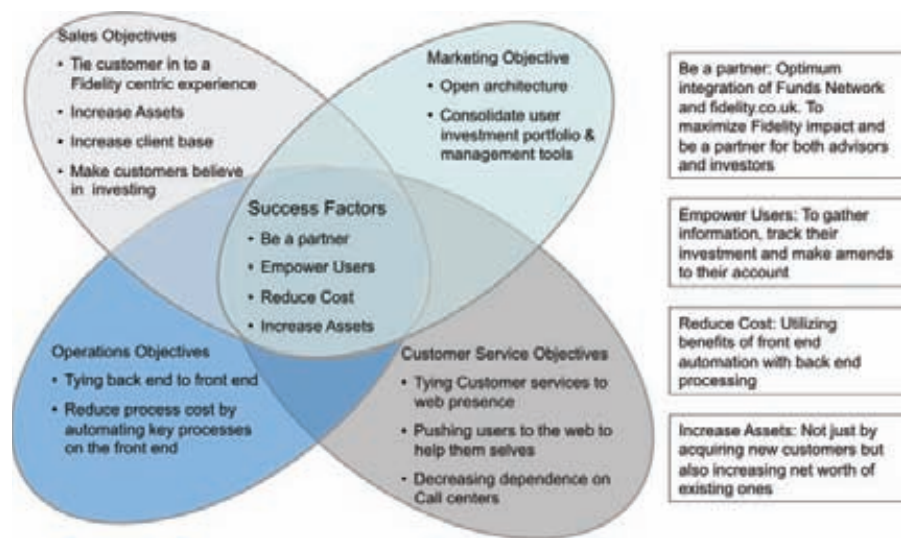


Figure 1. A unified and executable vision – from Fidelity International's sales, marketing, operations and customer service objectives, four "Success Factors" form the basis for a strong user experience strategy.

Once HFI has aligned the many disparate user experience goals, it creates a diagram – a concrete expression of a unified, user experience vision. Previously siloed stakeholders can now come together in this shared vision as they work together to execute it.

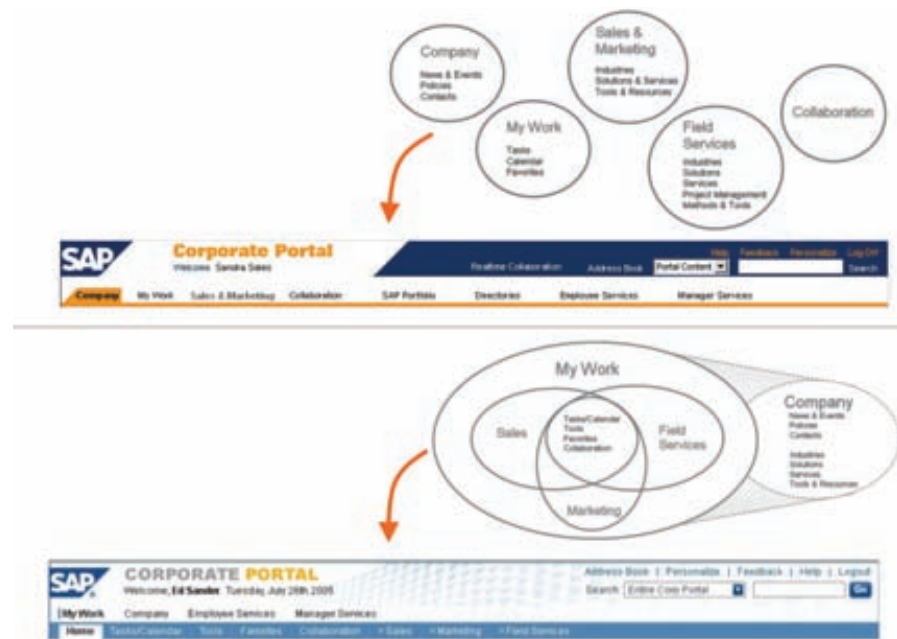


Figure 2. SAP's senior management acknowledged that a radical shift in their own implementation of SAP Enterprise Portal product was required to move to a "My Work-centric" model of electronic collaboration.

Digital assessment: Where are you now?

You and your stakeholders have now glimpsed your goal. Its shape and operational benefits are clear. You're excited about it. But to truly understand what you can achieve with that digital user experience strategy, you must know how your current digital assets are performing.

The output of Stakeholder Visioning sets the foundation for the Digital Assessment and provides the prioritized focus against business-based objectives.

Effective and meaningful assessments begin with the correct "lens" and measures –

- › Establishing your outcomes
 - Ensure that they are measurable and actionable?
- › Knowing where you are – and prepare to measure your progress
 - Build metrics and KPIs based on your current IT and process infrastructure

The overall rubric for review, as well as its detailed measures and metrics, comes from these objectives and the strategy they support.

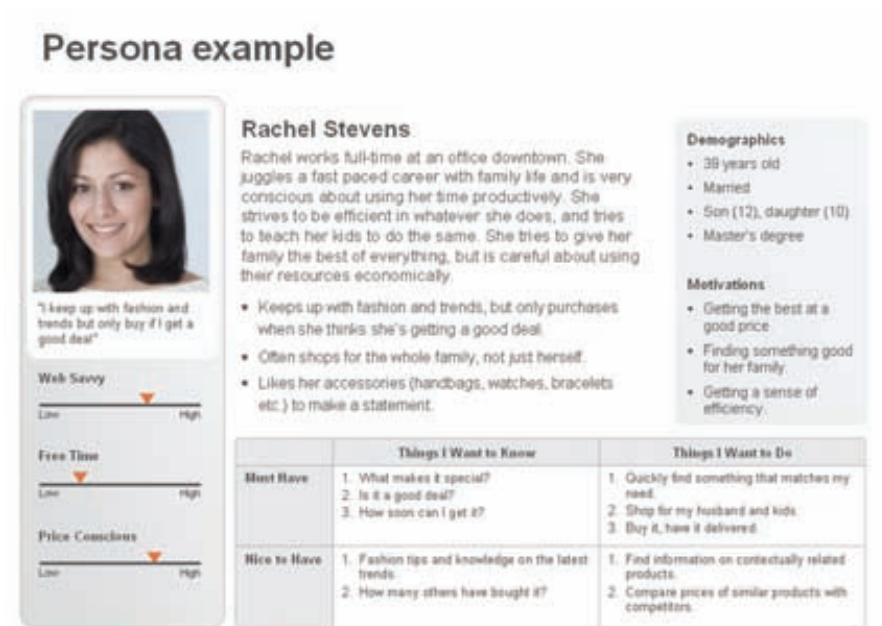


Figure 3. Detailed user personas test the needs and assumptions of a digital user experience strategy.

Once multiple personas have been created, an entire metrics-based system becomes possible. The chart below indicates the galaxy of groups affected by a digital user experience initiative within a bank. Testers owning personas within each system “grade” the user experience based on how it affects their user persona and that persona’s group. That enables the creation of digital user experience heuristics metrics for any channel within the organization. HFI can then build a user experience dashboard to compare and analyze overall and by-channel performance. Is your ATM providing a better user experience than the tellers inside your branch? How is the overall user experience across channels? Are user experience metrics improving from quarter to quarter?

Similar metrics can be used to measure your digital user experience performance in the competitive landscape. What are your differentiators – and how well are they working for you?



Figure 4. The digital assessment allows measurement of future performance with a review of all customer-facing channels including digital, brick-and-mortar and other assets.

Synthesis and Implications

At this point, you have everything you need to know how to continue. By developing and sharing your vision of what your digital user strategy looks like, you have established your business outcomes. You have assessed your digital, IT and other assets. You've highlighted your differentiators with your competitors. You've done interviews and developed personas to understand your customers and users, their needs and drives, blocks and barriers.

Synthesizing all of this data will provide clear implications that will inform your next step in your journey.

Operationalizing your digital user experience strategy: What direction to take?

Up to this point, the road to a digital user experience strategy has been more or less of a straight line. But once you have established a fundamental vision and user experience performance metrics, that road splits in two very different directions.

Are you going to move forward in a market you know, or one you'd like to know?

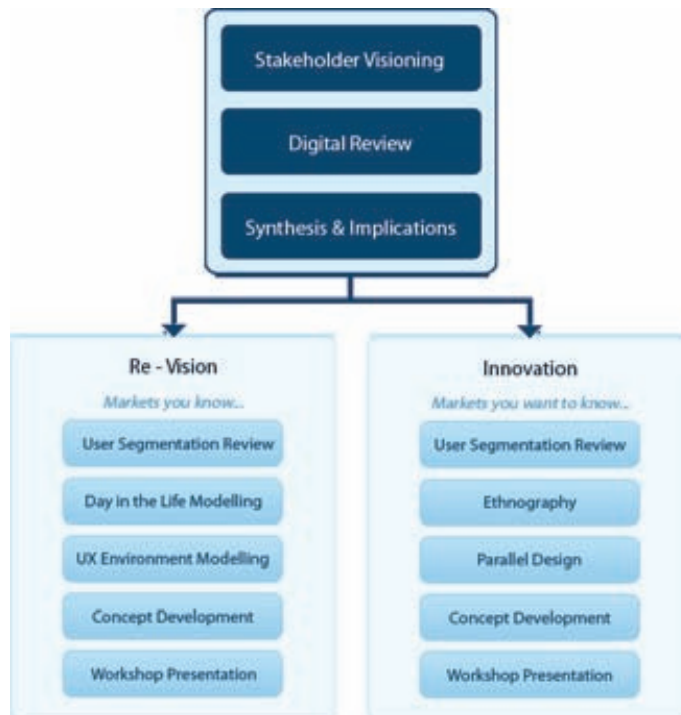


Figure 5. All of your visioning, research and experience are now pointing you in one of two directions – do you stay in a market you know, or launch a product or services in one you would like to know? Developing a digital user experience strategy along either path takes many of the same steps. Know (or research) your market, your customers and their ecosystem, and then develop, workshop and refine designs.

An organization must either Re-Vision, looking at the next generation of products or service in your existing markets; or innovate in order to attack new markets with new products. The two approaches actually require many of the same tasks:

- › identifying user/customer groups
- › research into their needs, motivations and blocks
- › concept development
- › validation and iteration of designs

Re-Visioning: taking the same road in a whole new way

Executed effectively, both approaches can also have significant strategic impacts for your organization – Re-Visioning by pioneering disruptive, “next gen” concepts that change your market and engage with new channels and new behaviors; and Innovation by demanding new competencies and new leadership in an entirely new market. We will consider those strategic challenges, and how they will change your organization.

For many organizations, the logical next step is to create a digital user experience strategy in a market they know. They can leverage that knowledge, their brand recognition, market leadership and customer relationships. They also have the luxury of bypassing primary empirical research on customers and users.

But the confluence of changing technologies, changing user expectations and user control of the digital discussion is making even familiar markets a turbulent place. Radical Re-Visioning may be necessary, in fact, simply to stay in place. There was a time when a new UI constituted a new user experience. Those days are over. A digital user experience strategy must now engage with the new and evolving channels through which users come to you, and where new customers are to be found. While there are cost considerations, those costs will be punitive if you let the market – and customer expectations – get away from you.

A smart, informed, user-centered design process will keep you in front of customer expectations with a game-changing, “next gen” digital user experience concept.

Institutionalizing Usability: The Foundation of Your Digital User Experience Strategy

Whether you decide to move forward in a market you know or one you would like to know, the essential first step in putting your digital user experience strategy into place is to develop and systematically incorporate unified, consistent user-centered design through:

- › *Executive Support*
An executive champion and management buy-in bring essential direction and resources to a usability campaign. Ensuring organizational responsiveness over the long term makes digital user experience part of the company's go-to-market culture. But to secure board-level support, the digital user experience initiative must be understood in strategic terms.
- › *User-Centered Design Process*
Developing effective, usable, digital assets means crafting an overall usability strategy, assessing usability gaps, performing research on user needs and behaviors, building and testing wireframes and sites, and then validating the results in the changed perceptions of users.

It's all in the execution.

Many a user experience strategy has foundered in the gulf between abstract concept and actionable plan. HFI has worked with enterprise organizations to distill the core business strategy into a visual and visceral digital user experience strategy. The heart of the Re-Visioning process is a concrete, visual rendering – not simply a plan on paper – of how your customers and/or employees will interact with your organization through your “next-gen” digital channels.

With stakeholder visioning providing a clear picture of where you want to go, and digital assessment pointing to where you are, HFI's digital user experience strategists use those data points – interpolated with user personas – to plot out the path from vision to reality.

Personas and a day in the life: making your Re-Vision real

It's time to begin turning the emerging concept into a practical design. How will the stakeholder vision work in the real world?

User personas, again, are a good way of finding out. Inhabiting those personas, speaking through them and viewing the user experience concept through their eyes provides invaluable perspective on the validity of an initiative. By introducing multiple personas into the digital user experience concept, we can understand how the unique experiences of customers, staff and other users will be affected by, and in turn affect, the whole corporate ecosystem.

Institutionalizing Usability (cont'd)

- › *Standardization*
When business units run their digital operations in the same way, usability variances are essentially eliminated and efficiencies are optimized
- › *Usability Maturity*
Establishing and rigorously adhering to metrics across the full range of usability will take an organization to an optimum level of routine, managed usability.
- › *Usability Metrics and Modeling*
A repository of user experience metrics, standards and other applicable knowledge and insights is essential to continuous, usability maturity over the long term.

Not taking these steps as you deploy your user experience strategy process will guarantee costly and lengthy usability fixes down the road. A digital user experience strategy is a constantly evolving process because the needs, motivations and expectations of users are constantly evolving, as well. So your user experience strategy can only stay effective when nourished by institutionalized usability standards and practices.

Using personas in this way helps drive and validate HFI's concrete visual renderings of your digital user experience strategy, while our "day in the life of" exercise lets customers and employees "walk through" it.

Re-Visioning an Integrated, Digital Customer Experience at Ernst & Young

HFI recently collaborated with financial services leader Ernst & Young on a Re-Visioning project to create an integrated user experience strategy for prospects, clients and Ernst & Young employees. Starting from the company's existing intranet, secured client extranet and public site, each one siloed and static, HFI diagrammatically articulated an executive stakeholder vision of a unified system offering collaborative, best-of-Web 2.0 features, and helped the Ernst & Young organization make that transition.

HFI helped Ernst & Young do much more than show a new interface to their clients, prospects and job applicants. Recognizing that an increasing number of talented candidates were approaching potential enterprise employers through social applications like Facebook, Ernst & Young's digital user experience incorporated a Facebook channel. Likewise, the user experience accounts for the increasing number of clients who reach Ernst & Young through mobile channels, or join financial discussions through applications like Twitter. What used to be just an interface now must be a multi-channel, application-agnostic platform. In recognizing that, Ernst & Young stayed in front of user expectations.

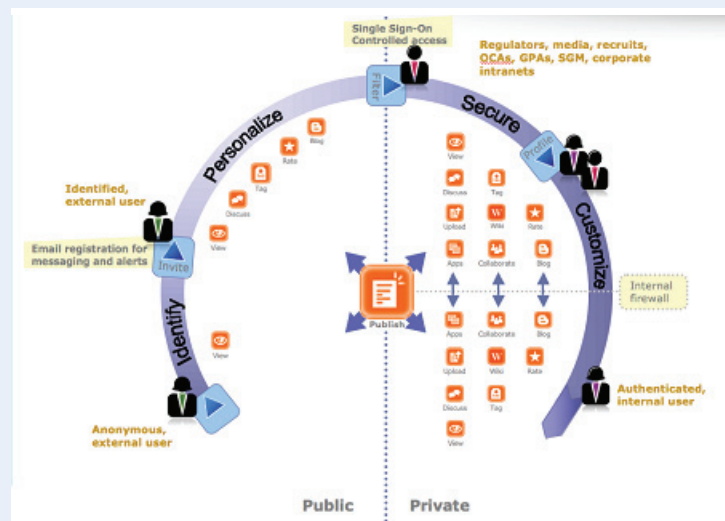


Figure 6. Ernst & Young and HFI generated a concept for an integrated eChannel that presents the user with usability, value and persuasive design at every stage in the conversion cycle.

This exercise, supported by stakeholder research as well as target metrics, takes the digital user experience strategy from an abstract concept on paper and makes it very concrete. The more users see a digital strategy at work – the more they can see it, point to it and feel how it affects them – the more they want that vision to be realized and will become allies and evangelists in the effort. That enthusiasm creates momentum, and helps carry the new strategy all the way to deployment.

Involving customers, employees and other users in the design cycle also yields valuable insights into user needs and expectations, and can speed up the development process. Focus groups that simply ask people what they like and don't like can create as many problems as they solve. HFI's approach to the "day in the life" exercise addresses those shortcomings. This carefully prepared, task-focused, contextual approach presents the digital user experience as a compelling, concrete reality, rather than a mere wish list.

HFI's iterative design process leverages everything the organization has learned about its customers and its market. From architecture to sketch, wireframe and, eventually, prototype, every step is rules and roles-based. The results are rigorously validated by users of all types – the public, customers and employees as well as ancillary users – and guided by principles of usability and PET design™ – design for persuasion, emotion and trust. Because while users may be increasingly driving the conversation, they expect you to drive conversion opportunities.

HFI's Innovation Methodology

- › **Find your space to identify opportunities**
Given a technology or area of software development, HFI helps your organization decide on the best domain to study and build a business case by triangulating on an area of focus with market and business research tools.
- › **Know your users as you discover them**
Who are you designing for? HFI's proprietary ethnographic techniques have been developed in engagements with enterprises across emerging markets to harvest critical intelligence about your target users. Using ecosystemic research and personas, we identify
- › **Create revolutionary concepts through ideation and evaluation**
HFI delivers multiple, breakthrough concepts for products and services. Multi-dimensional, visceral, visual presentations are tangible for both stakeholders and users. Our iterative design process is based on "real world" evaluation within the target ecosystem. HFI also incorporates total market research and pricing and go-to-market strategies that feed into their detailed, final concept realization.

Innovation: The road not yet taken

In this increasingly global market, myriad opportunities have opened up well outside the “western,” developed economies. Playing in these markets is a whole new ball-game. Product designs for these new customers require new ways of thinking about a new set of dependencies – innovation cubed.

Yet the dimensions of the playing field are remarkably familiar. Known markets require personifying known users and creating “next gen” concepts. Innovation involves finding a new space, getting to know your users – and creating revolutionary concepts. And as with the Re-Visioning process, HFI’s research-driven innovation methodology delivers a tangible, concrete, visual design of your product, service or application that builds development and marketing momentum.

Innovation Brings IT into Emerging Market Classrooms – Intel’s Classmate PC

The Internet has been a tremendous boon to education, but for many students around the world, digital technologies are out of reach. With PC penetration in the emerging markets of Africa, SE Asia, Latin America, India, China and Russia running slightly over 10%, the need for the product was critical, the business case was clear for Intel to develop an education product for emerging markets, and the potential market was vast.¹

Intel engaged HFI to develop a prototype based on ethnographic research in India. The innovation effort required HFI’s user experience practitioners to draw on all their ethnographic research tools. They began by conducting in-depth interviews and observational studies with all the stakeholders in the process – students, parents, teachers and administrators.



Figures 7 & 8. Deeply researched personas and ecosystem diagrams were at the heart of HFI’s innovation process.

Fully-formed personas were then created for stakeholders, filled with scenarios that described the ecology of the Indian education experience. In fact, HFI practitioners assembled holistic ecosystem diagrams for students, teachers and parents. This

Innovation Brings IT into Emerging Market Classrooms – Intel’s Classmate PC (cont’d)

personification and ecosystemic visioning – a parallel to the personas and visioning used to move ahead in a known market – helped in define what the device needed to be. HFI also assessed the competitive market and found that other devices were not affordable or mobile enough for the educational milieu of India or other developing countries.

HFI’s iterative ideation process generated a series of concepts addressed at student note-taking and teacher administrative tasks. The refinement and evolution of these designs led to a durable, lightweight, affordable PC that students and teachers could use to take notes, do and submit homework, connect to the Internet and collaborate with each other.

Validation of the product found that the clamshell design broke student-teacher eye contact, however. So the final iteration, Tablet Classmate PC, had the same functionality as its predecessor, in a contextually appropriate slate design.



Figure 9. Ethnographic research and testing drove the iterative design of the Classmate PC.

The key differentiator is research. Where a Re-Visioning strategy leverages what you know, innovation requires deep, broad ethnographic research. Deep so that you come to know your users as well as if you’d been working in that market for years. And broad, so that you can think *ecosystemically* – with an awareness of the often very different set of dependencies in an emerging market lifestyle.

True innovation requires thinking a very different way in a new market – user experience practitioners must take themselves out of their comfort zone, making no assumptions and taking nothing for granted. HFI’s ethnographic, “deep dive” research and an innovative approach to design yields *empirical iteration* – generating new ideas from research or discovery, and refining and elaborating those ideas through validation in the target ecosystem.

Digital strategies: It's about survival

Whether you are pushing the boundaries of a known market or breaking ground in a new one, a digital user experience strategy is no longer a luxury. It's an essential.

Your users expect you to keep up with them. Your competitors are pushing their digital user experience strategies – it's becoming the ante to stay in the game.

HFI can help you articulate your digital user experience strategy and develop it holistically, with a focused, coherent, research-driven approach grounded in user expectations. For years we have helped enterprises like Ernst & Young, Fidelity, SAP, and PNC identify their best user experience opportunities and get there.

And stay there.

Because the game is changing. As emerging markets across the world become more affluent, the digital universe is becoming more truly global each day. Digital standards, barely settled on Web 2.0, are shifting towards mobile Web 3.0, driven by users with an ever-more assertive voice the conversation.

It is these users that are driving strategy. Their expectations are in sync with the quantum changes in the digital landscape.

Are yours?

Notes

1. Veqar-ul-Islam, Syed, "The changing trends of Communications landscape: Is R & D geared for it?" *Nokia Siemens Networks*

About the author



Jerome Nadel, MS, CUA, CPE
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As Chief Experience Officer for Human Factors International (HFI), Jerome Nadel is a member of the HFI management team. He has worked in the usability and user experience field since 1985. With professional credentials that encompass not only human factors and usability, but also international business strategy, Jerome is uniquely positioned as a leading expert on strategic usability and user experience. He is a frequent speaker on user experience design at corporations and universities around the world.

Jerome is passionate in his belief that user experience design and strategy are fundamental mandates for successful organizations. His team consults with numerous Fortune 500 clients as well as cutting-edge startups worldwide.

Jerome began his career at the IBM Human Factors Lab, in Charlotte, North Carolina. Following his work at IBM, he held a variety of job titles reflecting increased responsibility at Unisys, including Co-Manager of the Corporate Human Factors Group. After his tenure at Unisys, Jerome became Worldwide Vice President of Marketing for a multi-national technology start-up, where he supported an acquisition by another international technology leader, Gemplus, ultimately serving as Vice President of Marketing there. His key mandate, and success, was driving technology partnerships and promoting usability of mobile data services.



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