What
Business
Are You In?

The Strategic Role of Usability Professionals
in the "New Economy" World

BY JEFFREY RUBIN

The role of the usability professional in the technology industry is undergoing enormous change. This change mirrors the immense changes in the information technology industry itself and the movement of business to the Internet. No longer is usability a discipline that's a "nice to do" luxury. In many cases, the user experience is the single most important determinant of success or failure for a product or service. In a recent Andersen Consulting survey of 2,000 shoppers, Richard Dull, a partner in the firm, reports that, "The Web site experience was found to be the most important issue for Internet shoppers." Dull also reports, however, that half of the people surveyed were neutral to very disappointed with current Web offerings—an enormous expression of dissatisfaction.

The Usability Evolution: The First Three Waves
This enormous change in the way we conduct business has had profound effects on the boundaries of the usability professional's domain within the organization. A bit of history is in order to reflect how far we've come and to offer some perspective on the current situation.

The First Wave: Up in the Air
Although Frederic Taylor is considered the father of human factors with his time-motion studies in the early 1900s, the modern wave of usability or human factors work started during World War II, with research on and improvements of airplane cockpit design. It seems that owing to inconsistent placement of controls and instruments, and an utter lack of human performance considerations, Allied pilots were being injured and killed at an egregious rate. Up to that point, cockpit design was a question of

squeezing knobs and dials and controls wherever they would fit within very cramped quarters, with little regard to the needs of the pilots.

The main focus of this phase was consideration of human physiology, information processing and performance under stress. Major improvements were mainly realized through designing consistent locations and redesigning the knobs and dials that made up the human-machine interface of fighter planes.

The Second Wave: Usability With a Small "u"
The second wave of the usability profession came with the advent of the computer—first mainframe, then midi, mini and finally the ubiquitous personal computer, which has become a mainstay of business and home life. The role of the usability professional changed somewhat from being solely an expert in human performance to being an expert in the empirical testing of applications and services that were built for the PC. The intent was to improve the usability of the hardware and software so that end-users could perform their tasks faster and more efficiently. The main focus was the human-computer interaction. Major improvements were mainly realized through empirical testing of prototypes, an understanding of intended usage and task flow, and identification of heuristics and guidelines for usability across various applications.

In these two stages, we heard little about "the user experience" in the broad sense of the phrase. The main focus was the product, or control panel, or user interface (UI) and the user's

by department) in the firm each handling a separate piece of that experience. There is little or no communication between the different departments. Each works on its own piece of the puzzle. This approach can work reasonably well for commercial software, but it fails abominably for software applications brought about by the advent of the World Wide Web.

The Third Wave: Usability With a Capital "U"

The third wave of usability engineering involves shaping the user experience as a whole rather than being solely concerned with the user's interaction with the product. With applications no longer contained on a CD-ROM or diskette, but either residing on the Web or downloadable from a Web site, the user-product dynamic has broadened to include many factors beyond navigation, visibility and ease of learning. Suddenly, now that Web sites serve as front doors for a company's entire product line rather than represent a single product, an interface must resonate a branding message and a marketing strategy. Web sites must communicate customer support availability and procedures, impressions of corporate stability, product relationships and other products' availability, and a host of other factors that help users form impressions about the company. Sites must communicate who the company is, what it stands for and whether it will be around in six months.

Not only must a Web site or Web-based application do all of this, it must do so seamlessly—even though many of these functions are performed by discrete divisions within a company. Whereas to a user "it's all one company," in actuality there might be a dozen different entities involved behind the scenes. Whereas to a user "it's all one experience," hundreds or thousands of people might be involved in the staging of this production.

In this third wave comes recognition that the user experience goes well beyond simply the ease of use of the product or service. In the broadest sense, usability involves every touch, every interaction, every phone call between an organization and user. *Usability with a capital "U"* involves the seamless design of all the factors noted and more to provide both a compelling and seamless user experience. It requires an organization to place the user experience at the forefront and align both products and organizational processes around that experience. (See Figure 1.)

This is extremely challenging for many organizations where departments are arranged in *silos,* or discrete, impermeable

relationship to it. I call this approach *usability with a small "u,"* mainly because of the focus on user interaction with the product or service. Usability with a small "u" is primarily concerned with the ease of use and ease of learning issues surrounding the product or service. Ancillary issues affecting user perceptions, such as marketing, branding and customer support, are all handled separately within a firm by entities other than usability professionals, with little or no coordination. In a sense, the user experience is fractured, with different entities (usually segregated

"The **usability profession** is the most likely candidate to address and **champion a broader vision** of user experience across the enterprise."

departments. These kingdoms have their own rules, objectives and compensation structures. In our work, we have found silos to be one of the most intractable obstacles for the design of a seamless experience. (See Figure 2.)

Example: Putting Your Worst Foot Forward

Here is an example that illustrates the harm of the silo effect. A telecommunications firm formed as the result of a merger of two smaller companies immediately launched a branding campaign intended to introduce the new company to the world. The campaign involved an ambitious print and television strategy costing millions of dollars. The overall message of the campaign can be summarized as, "We're new, we're different, real humans work here, personal touch is our specialty."

Now, fast-forward to the online enrollment portion of this firm's Web site—typically, a customer's first interaction with the new company. After enrolling, the very first document that a new customer receives is a "terms and conditions" document written and approved by the legal department. (You probably know where I'm going with this story). You've seen this document 100 times. It's written in legalese—all long paragraphs, sprinkled throughout with threatening language, and long sections of **ALL CAPITAL LETTERS AND BOLD-FACE**. Any semblance of conversational English is missing. In fact, at times, the capital letters and boldface make it seem that the author is **SCREAMING AT YOU.** What's the message the new customer receives? I contend that this document is much more than a legal document. It is an unwitting element of the branding

campaign—except that this message is very different. Here the message is: "Lawyers rule here, we don't trust you, and we're exactly like every other large firm you've worked with—bureaucratic, harsh and intimidating."

Keep in mind that this is the very first corporate communication that a new customer sees. Talk about putting your best foot *backward*. What do you think the customer is more likely to believe? The fleeting television commercial or the document onscreen that embodies a painful first experience with the company? I have

heard people argue that a terms and conditions document has little impact because "everyone does them and no one reads them." But this is my point exactly! No one reads them because they're all the same. So … what happened to being "new and different"?

This document was an opportunity to brand the new telecommunications firm as being different, creative, a leader in the industry. It could have been written with humor, in a professional, easy-to-read format that satisfied legal obligations while reinforcing the branding campaign that said, "Yes, we're different, and we'll prove it every time we touch you." I can envision the title of the re-designed document as, "Hold your nose while reading this." Or, "Our lawyers made us write this."

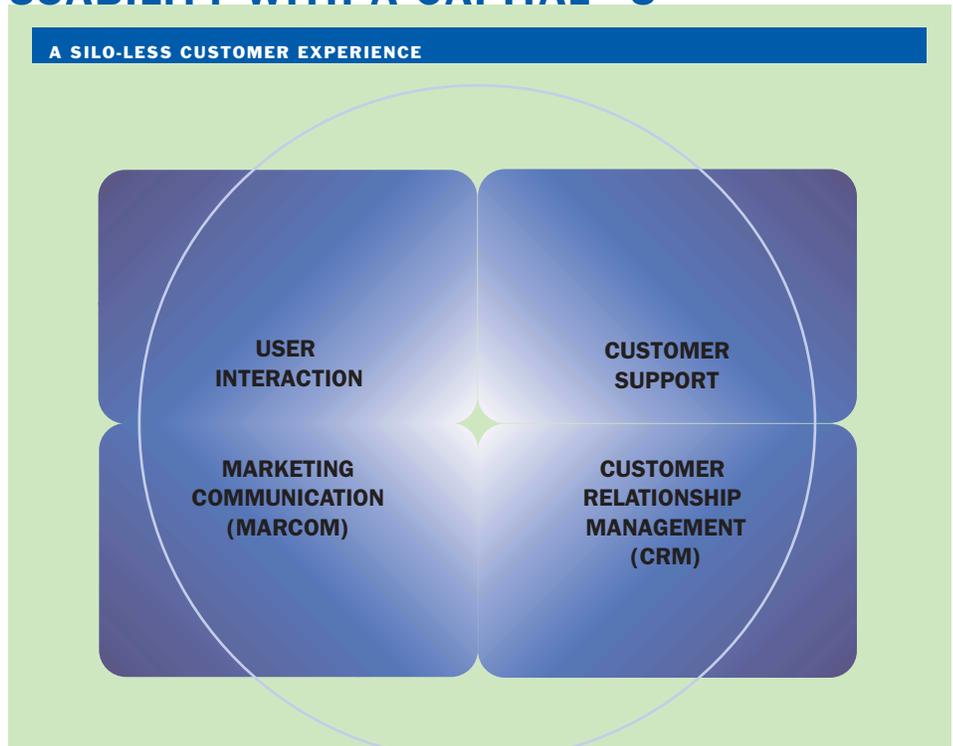*Anything* but another terms and conditions document.

USABILITY WITH A CAPITAL "U"

A SILO-LESS CUSTOMER EXPERIENCE

USER INTERACTION

CUSTOMER SUPPORT

MARKETING COMMUNICATION (MARCOM)

CUSTOMER RELATIONSHIP MANAGEMENT (CRM)

FIGURE 1

Let me give you a positive example of a user experience—one that magnifies my point that there are endless branding opportunities in the user experience.

Recently I visited Cdbaby.com to purchase a CD online. The site caters to independent artists somewhat removed from the mainstream world of large record companies. It's trying to win by connoting that it's more personal, and more attuned to its users' needs than the corporate giants are. After ordering the CD, I received a shipping notice via e-mail. I expected to read the same old perfunctory form that I've seen many times before. Instead, I received something *completely* different. I've included the e-mail message here, in Figure 3, for your enjoyment.

Talk about a different approach. I almost fell out of my chair laughing, and then I sent a copy of the shipping notice to no less than 25 people in my e-mail address book. Many of them wrote back agreeing that the message was funny and saying that they would check out the company. Now if this isn't a compelling user experience, I don't know what is. It surely woke *me* up.

Taking Ownership of the User Experience
Another factor in the dysfunctional user experience is that no one person or entity "owns" the user experience across the enterprise. Rather, different entities own different pieces, resulting in a fractured, fragmented approach to a customer.

This is why I believe a world-class user experience will never be perfected unless senior management takes an active and sustained role. Not until you reach the corner office do you find someone who oversees the many silos in a corporation—someone who can integrate the diverse needs toward the customer's experience. From this viewpoint, usability is a business process much like quality assurance or networking.

Where does the usability professional

A FRACTURED CUSTOMER EXPERIENCE

THE SILO EFFECT IN ORGANIZATIONS

USER INTERACTION EXPERIENCE

CUSTOMER SUPPORT EXPERIENCE

MARKETING COMMUNICATION EXPERIENCE (MARCOM)

CUSTOMER RELATIONSHIP MANAGEMENT EXPERIENCE (CRM)

FIGURE 2

come into play in this mix? What can we do to counteract this tendency in corporations to think small? I contend that the usability profession is the most likely candidate to address and champion a broader vision of user experience across the enterprise. The usability professional is in the best position to serve as user advocate and to view the organization from the users' eyes. We are in the best position to push usability up into the corridors of power, where it rightfully belongs.

Championing Usability Across the Enterprise: A Consulting Approach
Championing this broader vision of usability, however, involves a departure from usability as usual, away from a singular concern for the traditional concerns of navigation and placement of error messages. It means taking a business or consulting approach rather than a purely technical approach.

There are three aspects to this more businesslike approach that I'd like to discuss by building on the classic collaborative consulting model espoused by Peter Block. Along the way, I'll interject some of the practices that we use in our own firm to ensure a strategic approach.

1. **Frame the problem in business terms**

2. **Broaden the scope of the data collection**

3. **Analyze from a strategic perspective**

1. Frame the Problem in Business Terms
When a project team within an organization asks for a usability test of its product, the team is asking for a solution to a problem, which is often putting the cart before the horse. What problem are they trying to solve? Is a usability test the correct vehicle,

A GOOD USER EXPERIENCE

Jeff —
Thanks for your order with CD Baby!

Shipping Address
================
jeff rubin
38 XXXXXXXXXXXX
XXXXXXXXXXXX, NJ, USA 07747
EMail Address: jeff@usability.com
How you heard about CD Baby: artist website

Qty Description

Price Total
=== =========== ===== =====
 1 LYNNE ROBYN: red bird in snow $10.00
SubTotal $10.00
SalesTax $0.00
Shipping $2.25
Grand Total $12.25

Your CD has been gently taken from our CD Baby shelves with sterilized con-tamination-free gloves and placed onto a satin pillow.
  A team of 50 employees inspected your CD and polished it to make sure it was in the best possible condition before mailing.
  Our packing specialist from Japan lit a candle and a hush fell over the crowd as he put your CD into the finest gold-lined box that money can buy.
  We all had a wonderful celebration afterwards and the whole party marched down the street to the post office where the entire town of Portland waved 'Bon Voyage!' to your package, on its way to you, in our private CD Baby jet on this day, Wednesday, September 13th.
  I hope you had a wonderful time shopping at CD Baby. We sure did. Your picture is on our wall as 'Customer of the Year'. We're all exhausted but can't wait for you to come back to CDBABY.COM'!!

Thank you once again,

Derek Sivers, president, CD Baby
the best little record store on the web

FIGURE 3

or should some other method be considered? It is important for a usability professional to analyze and frame a problem or opportunity in his or her own terms to ensure that the solution matches the actual problem and that the larger strategic questions are considered. For example, are there reported problems with the current product or service? Would the product benefit from an expert review before dragging real users into the lab? Is there a clear vision of the target market or must some customer analysis be done first?

It is critical for usability professionals to understand issues like these and to frame the problem in our own unique terms in order to provide solutions that solve *business* problems. It's simply not enough to solve *design* problems.

Framing the problem begins with an understanding of:

- Product mandate (why the product is being developed and how it fits into the corporate business strategy)

- Business model (how the product will make money)

- Success criteria (how the firm will measure ultimate success)

Also, it helps to know such elements as the branding strategy, marketing strategy and customer support strategy, all integral to shaping the user experience or presenting the product in the marketplace.

It's amazing how much usability research takes place in a vacuum, apart from an understanding of these fundamental strategic objectives. Many times I've heard usability professionals state that their goal was simply "to get the best possible product out there." While that's a noble goal, and hard to fault, it's an innocuous goal—it's much like saying that the purpose of a business is to make a profit. Of course, the devil is in the details of how you go about it.

Is the intention of your product to garner market share? Make a profit within 18 months? Get to market first? Dominate a particular target market initially and then expand from a solid base? These very strategic questions will affect the product's design and the way we approach usability consulting and research. Since usability work always involves trade-offs, how can we trade off user needs versus corporate needs if we don't understand the corporate intentions for the product? How can we effectively decide to back off from certain usability battles when it is appropriate (when, for example, getting to market first is the key objective), or decide to fight fiercely for usability because the firm is trying to beat the competition on four key user experience benchmarks?

You might ask what something like branding strategy has to do with the product's usability. The answer is, quite a bit. In new economy products for the Web, the user experience *is* the brand, since there is no corporate brand equity to rely on. How you design that experience is a direct expression of how you want users to think of your company when they hear your firm's name. And that experience is a direct reflection of the product's design, the way the company handles customer support, and even whether the marketing message and the product's operations are synchronized.

Branding is not simply a message on a direct-mail piece, but *how you live up to that message* as a corporation. I am not stating anything particularly revolutionary here. Forward-looking firms such as Merck, 3M and Walt Disney have known this truth for years. But somehow this truth has gotten lost in the frenetic pace of today's business environment, where firms often believe that simply stating a branding message makes it so.

Another variation of this flawed thinking is the approach that corporations take toward their customers. Rather than create an experience toward

"In new economy products for the Web, the user experience is the brand."

which users will gravitate, they "do things" to customers or "implement customer programs."

For example, an e-commerce division gets a notion that it would be a great idea to cross-sell other products while the customers are checking out their shopping carts. The thinking is, "Hey, supermarkets do it all the time!" The division creates the "Checkout Cross-Sell Initiative" or some such program with four-plus nouns in the title, never pausing to consider that cross-selling might not transfer well from the real world to the virtual world. This is dangerous thinking. After all, if your corporate objective is to move 20 percent of your sales revenue to the Web in the next 12 months, how are you going to do that with a user experience that is broken?

My point is this: To really understand the usability of a product or service, one must first understand what marketing is promising the customer, and what new corporate initiatives are being considered. Without considering the more strategic questions, it is not possible to build a more comprehensive, integrated user experience for a product.

If, by the way, you are sensing an advocacy on my part that marketing and usability professionals need to work hand in hand, then you win the prize. In my

"The point is, though, that people leave a study understanding the big picture, the detailed picture and who in each department will take responsibility."

mind, it is criminal that marketing operates so independently from development and other departments.

In fact, we advise our clients that a usability practice works much better strategically when it resides in, say, the product marketing department rather than within the technical development department.

2. Broaden the Scope of Data Collection

The method of data collection relates precisely to the problem we are trying to solve, which, of course, is indicated by how the problem is framed. Many organizations simply build usability testing into their process, which is a noble endeavor. It makes for good press and makes it seem that the corporation is customer-focused. But at some point firms become lazy and the usability test becomes a rubber stamp or a checkmark on someone's list of objectives.

Instead, I advocate creative thinking about the best technique to use for the given objectives. For example, suppose your firm has residual questions about a new product's overall acceptability in the marketplace, even though you are well into the design phase. The key question is, "Will users accept this new concept?" Or, suppose your firm is planning a print ad campaign and needs feedback on whether the campaign oversells the concept. If you conduct a standard usability test, you will focus mainly on ease of use but not these broader questions.

Recently we were faced with this situation and decided to broaden the scope of a "typical" usability study. Our client was well into design and still had early market

research questions. We decided to add two focus groups with the test participants after the usability study, because these more strategic questions demanded significant time and focus beyond a usability test. Plus, since we know that focus groups conducted without the benefit of an actual concept to play with are notoriously unreliable, we felt doubly justified in conducting focus groups utilizing the same usability test participants. By combining these two methods, by bringing back the same people for the focus groups, we were able to address both the usability and market research objectives in the same week.

As a bonus, we were also able to show participants print ads from the marketing campaign, and see which ones resonated *after* actually having used the product.

A second aspect of taking a more strategic approach to data collection is the importance of involving others in the organization. Our intention in broadening the scope is to have the greatest effect on user experience, so it is self-limiting to collect data in a vacuum. Instead, get as many of the key players on the project team and beyond involved. Why not include marketing, branding and even customer support in the actual study? The key is in appealing to people's self-interest by presenting the larger picture of user experience, and the variety of inter-related elements that must work together for a successful result.

As an example, we have asked customer support people—those who field the calls on the corporate hotline—to participate in usability studies to ensure that we fully understand their front-line

user experience issues. Not only did we ask for input on user interface issues, we put them to work fielding simulated calls from the participants during the study. By doing so, we uncovered a surprising benefit. It turned out that none of the customer support folks *had ever actually seen anyone use the product.* And they thanked us profusely for being involved. This was after a year on the job in some cases. Astonishing? *Yes.* Scary? *Yes.* Unusual? *No.* Silos are everywhere.

Another tactic that can radically affect the quality of the data collected is to build in time to debrief as a team after each individual usability session. These debriefings also serve to enhance the buy-in quotient for members of the team. This method is a standard part of our data collection process.

3. Analyze from a Strategic Perspective

Analysis from a strategic perspective has two main pieces:

- Include the entire team in analysis

- Link back to process

Include the Entire Team in Analysis

Since broadening the scope is the intention, getting the entire team involved in analysis is critical. Many usability professionals conduct the analysis of studies or other research by themselves, and then produce reports or presentations to the team. They bear the full brunt of coming up with solutions by themselves, and then wonder why they feel like human dartboards at the presentation meeting. From a strategic perspective, this isolation limits both the scope of the analysis and the buy-in from other departments. Plus, none of us is so smart that we can nail solutions for upwards of 150 findings on a usability research study.

Getting many people involved in helping to decide what happens with the product not only better serves the prod-

uct, but it serves the process of unifying the customer experience as well. How can you integrate a branding strategy with a user interface unless the person responsible for product marketing is participating in the solution?

The first step in this process is getting the right people to show up. The second step is getting them involved in the process and "owning" the results.

When we conduct studies, our process includes holding a meeting with the entire team and decision makers to map out results and priorities and to assign responsibilities after the study. Some of the findings are marketing related, some are development, some are branding, some are customer support. Some are even user interface issues (*gasp*). The point, though, is that people leave a study understanding the big picture, the detailed picture and who in each department will take responsibility.

We have found that this helps immensely with getting results implemented because people are committing to taking actions in a public forum of their peers. In addition, organization obstacles can be identified and addressed in real time rather than being swept under the rug. More importantly, having all decision makers involved in an action meeting increases the probability that changes will actually be implemented— and that you will be seen as someone who can make things happen.

Link Back to Process

The second, even more important component of taking a strategic perspective is linking back to process during analysis. This includes both the development process and the business process of the firm. The development process has a direct effect on what kind of product gets created, how user-centered it is and whether the same types of user experience issues will arise again and again. If we just look at the product and its user experience blemishes during a study—if we don't analyze and question the root cause of these user experience problems—then we are guaranteed to see the same type of blemishes from a different development group next week.

The root cause of problems invariably ties back to the process used.

You might say that if you simply follow a user-centered design approach (UCD), your process issues will be solved. Right? Not exactly. The vanilla UCD processes were never intended to handle broader issues of user experience beyond the product. Following a UCD process does not stop the legal department from putting out a destructive terms and conditions document. Following a UCD process does not prevent an advertising campaign from promising features that never make it into the product. In the case of user experience issues, and not simply product usability problems, our vision of process has to be more expansive. In our analysis, we have to look at the larger picture and explore the root cause of user dissatisfaction and alienation.

The tactical aspect of this has to do with identifying a process cause for usability problems, either individually or as a class. For example, suppose you find "concept" problems in a usability assessment. That is, the user didn't understand the purpose of your e-commerce site because the home page did not clearly communicate the value proposition of the product or service.

The solutions to this problem flow naturally in the redesign meeting, but why did this happen, and what's to prevent an egregious problem like this from happening again and again in future releases? Was it a lack of solid user profiling? Are the wrong people writing screen copy? Is marketing hanging onto essential information about the target market? These are process questions one and all, and point to the underlying root cause for the product's home page difficulties. If the wrong people are writing copy, it's a business process problem. If marketing is operating in a vacuum, it's more than a UCD issue.

This is why user experience analysis must link back to the business process at large, and why senior management often has to be involved. In fact, this is very much the case at some of the more forward-thinking e-commerce firms.

We have worked with CIOs and CEOs who understand that it is in their best interest to participate in user experience engagements and attend action meetings. They understand what is at stake and are prepared to address organizational as well as development issues in order to work simultaneously on the present *and* future.

The Case for Strategic Thinking

In summary, my main point in writing this article is to encourage usability professionals to be more business-oriented and strategic in their thinking to ensure a compelling, seamless user experience. While the readiness to embrace usability as a business process may vary from firm to firm, the opportunities for a more expansive, emboldened approach to our work have never been more apparent or necessary.

References

Peter Block. *Flawless Consulting: A Guide to Getting Your Expertise Used.* Learning Concepts, 1981.

Alphonse Chapanis. *Man-Machine Engineering.* Wadsworth Publishing, 1965.

James C. Collins and Jerry I. Porias. *Built to Last: Successful Habits of Visionary Companies.* HarperBusiness, 1994.

Peter Senge. *The Fifth Discipline: The Art and Practice of the Learning Organization.* Currency Doubleday, 1990.

Jeffrey Rubin is Managing Partner, Usability Group, LLC, in Morganville, New Jersey. Contact him at (732) 591-0900 or jeff.rubin@usability.com.