

Identifying Web Site Requirements

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Editor's note: This article touches on both Web site design and branding. If you're interested in these topics, be sure to check out STC's Web site at www.stc.org. It recently underwent a major redesign and now incorporates the old www.stc.org site as well as the old www.stc-va.org site. In addition, the results of STC's recent branding efforts are available at www.stc.org/admin_docs.html (select "Guidelines for Integrating STC's Brand").

Talented graphic designers. Information architects who can serve up the Library of Congress in three clicks or less. Technical developers who can invent completely new technologies "just for you." None of it matters until you know THE answers to two questions:

"What should we build? And why?"

Identifying the requirements of what you should build is the hardest part of the design process. It is also what separates excellent Web shops from average ones. The methods they use, and the time they take before a single line of code is written or a single design concept is applied, are what make the difference.

Identifying requirements is about pursuing the answers to a series of important questions. How do we make money? What is our brand position? What are our users' key goals? What technology assets do we already have, and what core components will we need as part of our e-business architecture?

The following sections present four categories of questions and considerations that you should discuss with your clients: (1) client business goals, (2) client brand positioning, (3) user goals, and (4) technical and human resources. We also discuss some of the tools you can use for getting answers. The questions are the result of years of experience and many client engagements.

Client Business Goals

In the complex world of e-business, a successful Web design team needs more than an eye-catching layout and usable navigation. Even if you're working for a nonprofit, understanding and setting business goals is a critical part of identifying what specific functional requirements your client's new Web site will have. Asking your clients a series of important questions early on lets you use their

answers to help create your design. By getting these answers early, you can return to them later in the design process when things might otherwise have a tendency to get out of control.

But be careful. Relying too heavily on client ideas can also be a good way of running *yourself* out of business. Clients usually do a great job articulating what they want the outcomes of their site redesign to be: "We want to be THE pet supply retail destination on the Web." "We want to RE-INVENT the concept of business financing." However, they can do a terrible job translating those goals into specific details about what should be built, and why. Help your clients focus on their business goals rather than get into premature efforts to design the site itself.

How do we make money?

This is a great question for helping clients gain focus. Once, while talking to the marketing vice president of an online bank, we were discussing what the top-level "tabs" of the site would be. Our designs had four major tabs: (1) banking, which included all of the accounts, billpay, and account transfer management tools; (2) brokerage, which included trading and account management, research tools, and financial news; (3) insurance; and (4) financial planning. The discussion turned on the issue of whether the bank should attempt to add a fifth tab that made it possible for customers to compare rates and search for the best financial deals on the entire Web—something similar to an MSN MoneyCentral model.

Of course, the problem was focus. Did the client want the site to offer the services of a bank, with its own set of banking and investing products as well as the insurance products of its partner, or did it want the site to be a financial portal, offering news, information, education and advice, and providing impartial product comparisons? We were arguing that it couldn't be both effectively.



In the case of the online bank, it made money when more of the 30,000 daily visitors to its site made the decision to open new or fund existing accounts. By focusing on the user behaviors that actually supported the bank's business goals, we helped ground the discussion on how to shape the site. Even if you are working with a nonprofit organization, asking the money question is a great way to get executives focused, because they're familiar and comfortable with that way of thinking.

What is the size of the market opportunity?

When trying to weigh the amount of time, technical resources, and money that should be spent on different phases of a site design, it is obviously helpful to know how much demand is out there. If research estimates that more than a million people are going to begin using electronic billpay in the next six months, but only a few hundred thousand would even be interested in expensive customization features, deciding which of the two to implement gets a lot easier.

Of course a larger issue is whether there is market demand for the entire offering. Even before the recent market slump, there were lots of spectacular dot-com failures. Not every business belongs online, and not every site will provide a good return on investment (or generate revenue), no matter how well it's designed.

Who are our most formidable competitors?

This question seems so obvious that it's almost not worth mentioning. But the first thing you and your client should do when you start a design process is to identify your client's biggest competitors. Take a hard look at what they're doing and not doing. Then, as you identify requirements, evaluate how your offering will compare with theirs.

But watch out for the tendency to "keep up with the Joneses." During a redesign of a major airline site, our client's response to any question or discussion about requirements was "Delta's doing it." This reaction wasn't so much a competitive analysis as it was a knee-jerk impulse to declare that if

other airlines did it, it must be a good idea.

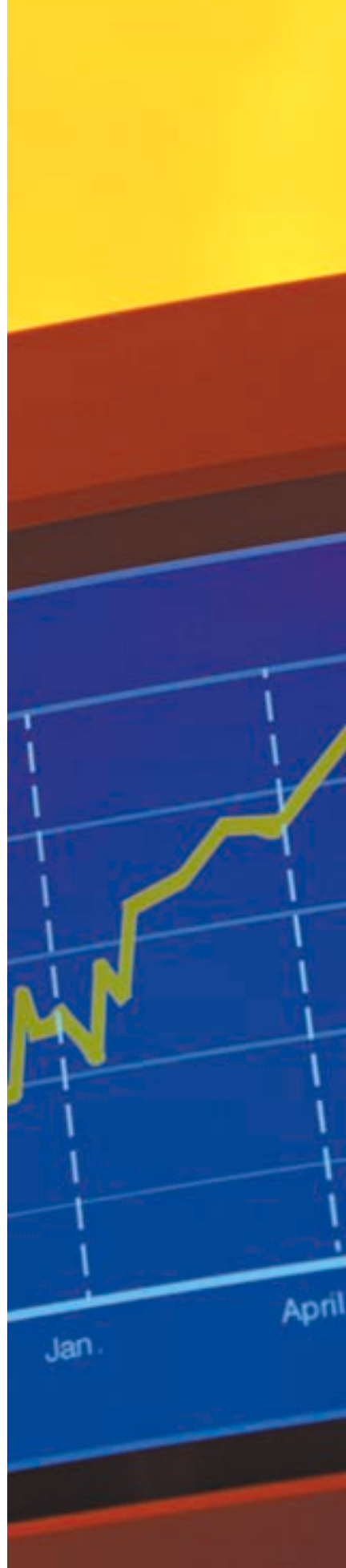
What are the specific revenue and growth goals? How will we measure success?

These are important questions even for nonprofits. Of course, you can't really convince yourself or your client that the site (re)design has been a success if you didn't begin the process with some goal in mind. Our best recommendation is to be realistic. During a recent financial services site launch, one of the big five consulting firms participating in the project predicted that the site would have a million customers by the end of that year. It had 107,000. Don't just make up the numbers. Instead, try to connect them to some real metric of success for the venture. If the client is a nonprofit, do some field work before the redesign and find out what impressions people have of the site. After the redesign, do the same test. You hope to be able to show your client that yes, users who visited the site were more readily able to understand its purpose (for example, fundraising, issues education), and yes, they were immediately able to explain how to make a donation.

If you're working with a corporation or a business, set success metrics relative to what the client is spending on site development. Of course, the site's results can far exceed expectations, and if you do things right they probably will, but set some realistic metrics based on what the client is investing in (re)designing the site. If the client is spending \$800,000 on a redesign, break that down into numbers of new customers, reduced support costs, product sales, or some other measure. Estimate how many user behaviors the client needs to see to recoup its investment. Executives appreciate this kind of thinking, and it will help you be accountable too.

What user behaviors best support our business goals?

Information architects love this question. They are very interested in understanding the most important pieces of functionality and information. Just like a grocery store putting staples like milk in



the back to lure shoppers past other items they might want to buy, information architects can structure a site so that things they know users want are positioned near things users might want when they see them. At the same time, things that users are only occasionally interested in can still be made easy to find.

Surprisingly, we've found that many clients can't answer the question of which user behaviors are most valuable to them. They want to start looking at designs right away. But wise site design teams will refuse to begin designing until they get a firm answer, because this issue is so connected to the site's success metrics. That online bank provides a good example. We discovered that the most profitable products the bank offered were home equity loans and credit cards. So we developed the design with a lot of opportunities for customers who owned low-margin products like billpay and checking accounts to be cross-sold with higher margin products like loans and credit cards. To build our client a successful site, we needed to get very specific about what user behaviors resulted in success. We could then focus on making it possible, and even likely, that users would do the things that would make the business successful.

Client Brand Positioning

While business goals and metrics focus on how an organization will make money—on identifying what specific product and service offerings will *satisfy* customers, prospects, and potential investors—brand positioning focuses on how to *approach* them. Branding means associating a product or service with core values that resonate with customers. We can talk about a brand as consisting of a brand promise, brand attributes, and a brand personality. The *brand promise* or *brand positioning statement* defines the primary benefit provided to customers that you hope will differentiate your product or service from the competition. The *brand attributes* are the supporting benefits that the customer receives from your product or service. These brand attributes may be functional (reliable, flexible, fast), emotional (trustworthy, friendly,

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fun), or self-expressive (helping the customer feel smart, hip, or successful). The *brand personality* is how the brand expresses itself—how the brand is communicated to customers.

Customers are more likely to buy products that are strongly branded, so a strong brand is a powerful, albeit intangible, business asset. Sometimes businesses associate branding with the strictly creative elements—logo, identity, colors, and design—of their online approaches, but these elements communicate only the brand personality. To define the brand, you need to start with strategic issues—issues that matter for small companies as well as large ones. Even if you are producing Web materials for a small college in the Midwest, you want to pay attention to how you brand your product. This process can be as simple as making sure the essence of your offering coincides with customer needs, or as global as deciding which products fit strategically into your brand strategy and which ones don't.

To help your clients understand the branding requirements for their site, so that you and they can come up with a branding strategy, you need the answers to these questions:

Who are the client's current customers?

The client's potential customers?

If you are working with a large organization, it may have sophisticated information about the segmentation and demographic distribution of its customers. If it doesn't, find out if it can do some market research. As you position

the brand and think about the design, you obviously need to understand whether you are talking to generation Y or to baby boomers. If you are working on a Web site for a small science library at a college in Maine and your client tells you your market research budget equals the price of a chicken salad sandwich, you're not dead in the water. Get out and talk to your "target market." Stop people in the foyer of the library and talk to them. Get the library to offer some promotion, maybe amnesty for late fees, if students are willing to let you stop by their dorm rooms and watch them interact with the library Web site. Interview them about their perceptions of the library. Any information is better than none, even if it is just the qualitative detail you take away from a few field observations. You can't begin to know how to approach your customers effectively until you know who they are.

What uniquely ownable benefit does or could the client's brand possess?

The immortal Jack Trout and Al Ries (*Positioning: The Battle for Your Mind*, McGraw-Hill, 1981) said it best: "Positioning [branding] isn't something you do to a product. Positioning is what you do to the mind of the prospect." But before site designers can begin to come up with any kind of creative strategy, you and the client need to understand and define the client's brand. Again, for large organizations with educated marketing staffs this isn't a big deal, but for some smaller organizations, coming to a brand definition means educating them first.

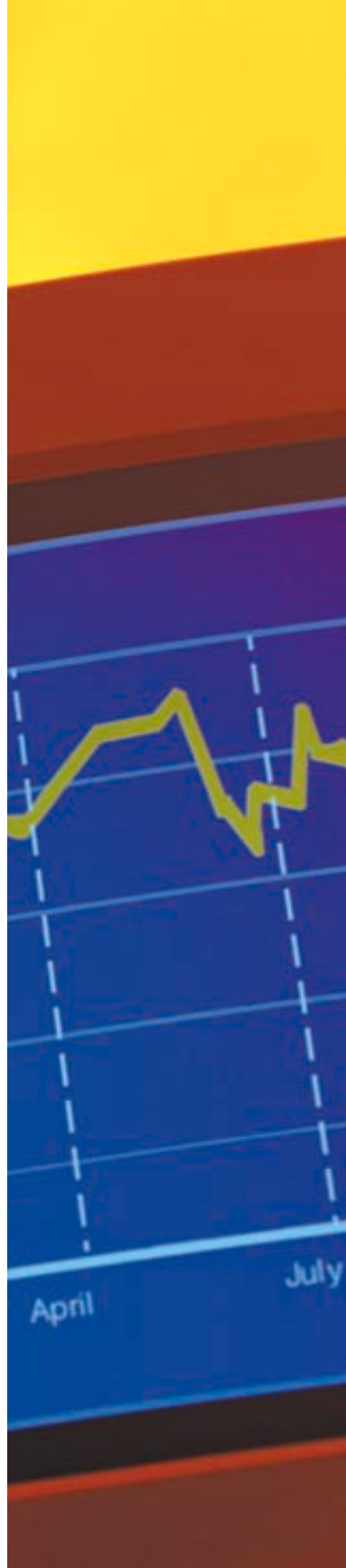
A good example for teaching branding is the credit card industry. VISA's uniquely "ownable" benefit (brandingspeak for the distinctive benefit your brand seems to "own" in the marketplace) is ubiquity: VISA owns the idea, even if it isn't true, that it is the most universally accepted credit card. It's important to help your client understand that brand definition is different from the tagline. ("VISA, everywhere you want to be.") Brand definition is the idea upon which the tagline is based. And it is broader, so that television commercials, and in our case, Web sites, can be designed in keeping with the brand.

This uniquely ownable benefit should then be the foundation for your client's *brand promise* (also called the brand positioning statement). It explains *what people get* if they buy or act. It is the single most compelling benefit (not product attribute) that will motivate people to act. It is usually emotional, not physical. People don't necessarily rely on feature-for-feature comparison when they choose to buy a Porsche over a Toyota. Nor is the decision based purely on dollars and cents.

To help clients develop this brand positioning statement, have them begin with a list of attributes that focus on the functional, emotional, and self-expressive benefits they want people to associate with their product or service. When listing adjectives to describe these attributes, think carefully about each one and how well it supports the others. Then pare the list down to two or three words that convey the essence of the brand. Porsche = Performance, Prestige, Power. Toyota = Value, Reliability, Practicality. Using this pared-down approach makes it easier to understand the brand motivations that cause people to act. The brand promise and key brand attributes should shape every interaction with the customer.

What tone and image does the client want its brand to represent to its customers?

The brand's "personality" is how the brand expresses itself, how its promise and attributes are communicated to the customer. The brand's personality may be the only factor that separates it from its competitors. When a purchase deci-



sion involves (or perhaps even depends on) an emotional response, a likeable personality provides the necessary emotional link. A consistent brand personality not only helps the brand distinguish itself, but also helps define the interactive experience that represents that brand online.

Smaller organizations that have not mounted a serious marketing campaign may not have spent much time thinking about their brand. The whole notion of "brand" may even be a new concept for them. In these cases we use the question of tone and image to inspire the client to identify two or three adjectives they would like their customers to associate with their organization. Pinning your client down on even a few basic brand attributes will help you understand how to approach the requirements of the Web site.

For example, the *Wall Street Journal* doesn't use color photographs in its print edition. This doesn't have anything to do with the relative communicative merits of color photographs versus black-and-white illustrations. It isn't a design decision. It has everything to do with how the *Wall Street Journal* wants customers and competitors to perceive it, and perhaps more important, how it wants its customers to perceive themselves—as intelligent, informed, conservative, and cognizant of the value of a newspaper that relies on text to communicate financial news and related information. USA Today.com has a Life tab on its Web site; WSJ.com does not. That is a product/content decision that is as much driven by brand as it is by user goals. There are more than forty-five different colors on the USA Today.com home page. WSJ.com uses black or dark blue text on a white background, with a few light-gray shaded tables. These design decisions communicate who WSJ.com is, but they also send a message about who the site designers think the readers are.

Are the client's brand identity, Web site design, logo, and marketing/advertising materials aligned with its brand positioning?

If all of the touch points your client has with its customers don't convey a single message about who the client is,

customers are less likely to be able to differentiate your client from the rest of the crowded marketplace. It is extremely important that any Web sites you build fit into a larger branding strategy that has a clear rationale. A lot of the clients we work with have brick and mortar as well as dot-com presences. In such situations you will need to discuss whether the two represent a single brand or distinct ones. More important, you and the client need to articulate the rationale for this strategy. Ask clients how their strategy enables them to maximize their brand, market share, and revenue potential. Are they developing a brand personality that is clear, consistent, and predictable? More often than not, you will find that they haven't really thought hard about why they want their Web site to be different from or the same as their brick and mortar brand.

If you really want to impress your clients with your branding savvy, be sure to use the questions in the sidebar titled "Wear black..."

User Goals

A lot of clients and their Web design agencies pay lip service to discovering user goals. Unfortunately, for some agencies, identifying user goals comes down to the BOGSATT method (Bnch Of Guys Sitting Around a Table Talking).

Even if experienced information architects and designers could successfully defend the needs of users once they knew what those were, professional Web designers are immersed in an expert Web culture, and cannot get inside the head of, say, a middle-aged novice AOL user in the southeast United States.

When trying to visualize the user experience, designers shouldn't rely on general demographic descriptions or market segmentations. Even focus groups are not enough, because they remove users from their usual environment and context and put them in a room full of strangers where they are unlikely to tell the truth. What users *say* they do and what they *actually* do are often completely different.

The best way to accommodate user

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goals is to design with specific people in mind. And we don't mean the fictional user profiles that most agencies include in their creative briefs. Instead, you need the rich detail that can only come from observing real people in their real environment—including the type of computer, available bandwidth, technical skills, jargon, and even corporate or consumer culture.

For the purpose of gathering requirements, there is a systematic way of discovering user goals that can be adapted to most situations:

1. *Observe representative users in their environment.*

We recently worked on an equities research site for one of the world's largest investment houses. We joined the project midstream and the design team already had an advanced wireframe that they wanted us to test for usability. We insisted on first going into the field and doing some quick-and-dirty field research, even if it meant more interviewing than hard-core ethnographic shadowing or observation (where you keep your mouth shut and just take notes). At first the design team was very resistant, claiming that they already knew everything they needed to know about users.

After our first user interview everyone began to understand the value. We went into a financial advisor's office and asked him about the tasks he had to do that morning, and we watched him handle several calls and use the various information resources he had available—both print and online—to answer client questions. Soon we noticed that almost every interaction began with a large pamphlet, and discovered that this was a monthly publication put out by the investment house that no one on the design team had seen. The pamphlet had every industry the house covered; it was dog-eared and gave us enormous insight into the way analysts and advisors search for information. We left that day with a copy of the pamphlet to study and compare with

Wear black...

...ask these questions, and your clients will think you work on Madison Avenue:

- What are we branding?
- Who should we be talking to?
- What is their current relationship with the brand?
- How did this happen?
- What is their relationship with the key competition?
- What do we want people to think, feel, and do (rational/emotional/action)?
- What will get them there (the bridge between the consumer and the brand)?
- What is our uniquely ownable proposition (one thought or brand promise that we can own vs. the competition)?
- What is our support for this thought? What brand attributes do we need in order to fulfill our brand promise?
- What is our brand's tone of voice (smart, hip, fun)?

what we were doing online. The design team was delighted. You don't learn those kinds of things in the lab.

During another recent business-to-business project that involved middle-market business financing, we again insisted that we begin the engagement with some contextual user observation. The opportunity to hear representative users speak in their own voices, from their own offices, about the kinds of tasks they need to perform and what specific criteria they use as they make decisions about seeking business capital was invaluable for our client, as well as for our design team. We were able to create flows of the entire business financing process, understand what the exact decision points were for customers, and hear individuals from different industries, company sizes, and geographic locations explain the kinds of things they are thinking when they make critical decisions. We were able to identify the different roles users play, the tasks involved in each role, and the cognitive backgrounds of each role (the kinds of information they already understand and their level of experience with the tools and processes of seeking business capital). As a result, we could make informed recommendations for Web site offerings and strategies that were directly supported by user goals—user goals that we didn't just make up using our psychic powers and the BOGSATT method.

2. Confirm your hypotheses with some kind of quantitative study.

We'll admit that this approach makes more sense when you are doing commercial work for clients with a broad audience and the money to spend on research. However, quantitative studies don't always have to be as expensive as you might think. Depending on the computer use patterns of your target audience, you might be able to get valid confirmation of some of the hypotheses that grew out of your qualitative observations by conducting an online survey. There are numerous Web sites, such as www.zoomerang.com, that will host surveys for you. These services approach the process in different ways. Some require users to follow a link (from an e-mail) to



the site. Others “push” the entire survey via e-mail to selected respondents and record the results when users submit their responses.

It's probably a good idea to get the advice of someone familiar with statistical research so you can have confidence in your findings. Based on the size of your population and your response rate, you can design a relatively small study that validates your conclusions. It's also a reality that clients tend to prefer quantitative over qualitative studies. It's comforting to some to see the world in hard numbers, even if numbers aren't truly as helpful as qualitative studies in providing insight into user wants and needs. However, if you've already been into the field and come up with some hypotheses, some quantitative validation makes million-dollar decisions about requirements a bit easier to reach. Better to find out early that you're headed in the wrong direction than to read about it in the papers later, the way pure-play (online-only) banks, or some business-to-consumer clothing retailers have.

Technical and Human Resources

Even after figuring out how your client is going to make money and immersing yourself in the user context, you're not done gathering requirements until you understand two major things: (1) technical requirements and (2) whether the organization has the people to support the kind of site you want to propose.

Technical Requirements

You don't have to be a technical wizard to scope your technical requirements properly. Start by auditing your client's existing technical resources. Make an appointment to meet with the client's technical lead; you'll find the technical lead will not only know about the technical architecture but can give you insight about user and business contexts you won't get elsewhere. Ask the technical people to walk you through the Web servers, application servers, Internet connectivity, and security infrastructure that underpin the current Web offering. This knowledge will help you understand where you are and where you should go next. (For help, see the sidebar “Ques-

tions for Gathering Technical Requirements for Non-Techies.”)

Keep in mind that your suggestions to the client will either have to apply existing applications or tools, or will mean buying or creating new ones. Be aware of any existing legacy/back-end systems that need to be integrated with the new Web site. In financial services or health care sites, these technical requirements and limits can be extremely complex, and in the worst cases, the entire Web offering is driven by the layout and design of the technologies that support it. We’re not suggesting that the requirements gathering process should stress technical over

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Questions for Gathering Technical Requirements for Non-Techies:

- What applications and tools need to be developed for delivering your services online?
- What are your current technology assets?
- Are there any existing legacy/back-end systems that need to be integrated with the Web site?
- What are the security requirements for the Web site (authentication, SSL encryption, digital certificates, etc.)?
- What are the scalability requirements for the Web site (number of concurrent users—100, 1000, or 10,000)?
- Do you envision any specific Internet technologies, such as XML, Java, or streaming media, being leveraged to improve your Web site and business?
- Who will be hosting the Web site?
- What are the core components (personalization, content management, orders, and logistics) you need as part of your e-business architecture?
- Is total cost of ownership a critical factor in your technology decisions?

human needs. But being aware of the technical limitations helps you negotiate the political issues you may confront as you make recommendations. Doing your homework and gathering information about the technical environment can help you know what is possible, and what you are actually asking the client to change.

It’s also just plain smart to be thinking early about technical implementation. Discuss the security strategy for the new site with your client’s technical team. Do some rough estimates of its scalability requirements. Knowing whether to expect 100 or 10,000 concurrent users will definitely affect your direction as you design the site.

Gathering requirements means anticipating all of the different touch points your client’s customers will have with your product. You may want to plan to separate content from presentation by using XML, thereby allowing you to deliver content to systems such as PDAs and mobile phones. In your interviews with the client’s technical team, be sure to discuss the core components of the e-business architecture that you are considering. Items like personalization (the systems that make “My Yahoo” pages possible) and content management systems are expensive and will transform the technical layout of a site’s back end. Be aware of these issues before you start chucking around ideas in meetings.

Finally, when you are thinking about technology, think about money too. For most of the organizations we’ve worked with, total cost of ownership is a huge factor in the ultimate technology invest-

ment. That means that as we go through the requirements gathering process, we have to balance our technological, personnel, and other resource decisions with how much they will cost.

Human Requirements

Does your client have the people to maintain what your proposal requires? You may want to consider that before you propose a site that needs to be updated every day, or that needs custom ASP programming once a month. Total cost of ownership includes the people with the know-how to keep the thing running. And we’re not just talking about technical folks. We’re talking about the content experts, editors, and graphic designers who maintain and keep the site fresh. Get a sense of what positions (and skills) are on the client’s Web team, and discuss plans for future hiring with the client. Your client will not be your friend if he or she can’t afford to keep the site running three months after its launch.

Identifying Requirements

So you’re figuring it out. The requirements gathering part of designing a Web presence is tough—whether you’re building ten-page “brochure-ware” or a sophisticated transactional application. But don’t panic. Go out and get the answers to each of the questions we’ve grouped into these four categories: business goals, branding goals, user needs, and technical resources. You’ll then be ready for the next juggling act—reconciling these dependencies, and figuring out what to do when they conflict with each other.

But that’s a topic for another day. **1**