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# effective info architecture

**The site has grown too big, too fast, and they hired you to fix it. So where do you start?** There are techniques and people who can help you become a better information architect. You're about to learn the techniques; your users are the people who can help you. Through techniques such as personas, card sorting, and pen and paper testing you stay close to your users and should have a good idea of how to design for them.

## The Definition Phase

Effective information architecture starts with defining your site's goals and its target audience. Define your site goals by what you want your users to do. Do you want them to read content? Buy something? Register? Apply for an account? Define your goals in terms of specific user tasks, and be sure to include quality of user experience. The statement, "Users will be able to apply for a mortgage online" is too ambiguous. A more useful, measurable benchmark to aim for would be, "Users will be able to apply for a mortgage online without assistance and within ten minutes". Also, learn to prioritize your goals sequentially (1, 2, 3...). Otherwise, you'll end up with a long list of "highly critical" objectives. If your team is having difficulty prioritizing, give everyone a fictional budget of \$100 and ask them to allocate funds across the goals.

*Now, for your users. To better understand them, start by reviewing emails, letters, or comments that users or customers have already provided. This will identify their interests as well as areas for further investigation. Next, talk to them. Interview them about their needs, wants, and concerns. If you don't have direct access to your users, find*

*people who do. Sales people, account managers, call center staff—anyone who comes in direct contact with your users. Also, note what users are saying about you in newsgroups. Pay attention to their rants and raves and the terminology they use. For example, go to [groups.google.com](http://groups.google.com) and do a search on your site's topic to see what users are discussing.*

## Your Users

Once you know your users, the next step is to define them. Don't fall into the trap of designing for the average user, because this will lead to a generic, compromised design. If I asked you to design a T-shirt for an average user, you might give me a white T-shirt that fits everyone, offends no one, but ends up being used as underwear. If I ask you to design a T-shirt for a skateboarder in Van Nuys, California, you now have a specific user in mind. You can now decide which color and graphics yield a design that will engage the target user.

Define your users through personas—fictional characterizations of your target end users. Personas help you to keep specific users in mind while you design. Start by creating personas for each of the different types of people who use your site. For example, an insurance site may have personas representing heads of families, singles, and widowers. The more realistic your personas are, the more useful they are. Give them specific names and even clip out photos to represent them. Personas should also include demographics, interests, needs, and concerns. Once you've finished, select a target persona. The criterion for selecting

the target persona is simple: pick the hardest user to please.

Here's an example persona for the head of a family using an insurance site: Victor Lehman is 37 years old and he and his wife, Serene, had their first baby a month ago. After some parental leave, Victor is back at work as a production engineer at a technology manufacturing plant. Victor is enjoying fatherhood; however, he does miss having a full night's rest and being able to play golf on weekends. Victor is experienced with computers, but only uses the Internet when he needs something. And he's still hesitant to make online purchases due to privacy and security concerns.

### online resources

If you're still scratching your head, here are a few helpful resources.

### for your information

Argus Center for Information Architecture  
[www.argus-acia.com](http://www.argus-acia.com)  
 InfoDesign  
[www.bogieland.com/infodesign/index.htm](http://www.bogieland.com/infodesign/index.htm)  
 Iaslash  
[www.iaslash.org](http://www.iaslash.org)



After you've selected your persona, make that person the focal point of your design discussions. Instead of having endless arguments over what the user wants, your team should now make its decisions based on what Victor wants. This will help you and your team to be more focused and effective in making design decisions.

## Site Content and Functionality

The next step is to specify the content and functionality that will support your business and user goals. To do this, marry business and user goals with ideas for proposed site content and functionality:

**Business Goal:** Enable users to apply for life insurance online without assistance within 15 minutes.

**User Goal:** "Help me find and apply for the right type of life insurance with the right amount of coverage to ensure that my wife and child will be provided for if anything happens to me."

### Site Content and Functionality:

- Explanation of different types of life insurance.
- Life insurance needs calculator.
- Insurance application form.
- Application form help.
- Security and privacy policy.

## Scenarios

Scenarios describe how your site content and functionality link to one another; they don't include design specifics. Scenarios should focus on the user's task and should never specify any user interface details. Integrate your target persona to keep scenarios realistic and user focused.

A sample scenario of Victor applying online for life insurance might be something like this: Victor has a few minutes at the end of his lunch break, so he decides to surf the Internet to find out more about getting life insurance now that he's a new father. He has never bought life insurance on his own before, so he reads up on the different life insurance options available. He also uses a quick calculator to find out how much insurance he needs to provide for his family should anything happen to him. The calculator leads him to an online insurance form that guides him through the application process. Helpful explanations for each step on the form make it easy for him to fill it out. He also looks at the security and privacy guarantee to reassure himself that his online transaction will be protected. He submits his information and feels good about taking care of this necessity in such a short time.

## Bottom Up Design

I'm a strong believer in a bottom-up site design approach, because users experience your site on a page-by-page basis. Users shouldn't notice your navigation system or your section and subsection page templates, nor do they care to. However, designers and architects often design from the top-down and hope that content and functionality will fall into place and fit in the templates. This might make for some clean overall design, but it doesn't do as much for users who are on a particular page and trying to figure out where to go next.

Your site design focus should be on the user tasks outlined in your scenarios. Start with tasks that support your highest priority business goals. After you've designed individual tasks, you can then focus on an overall structure that links everything together.

**Wireframes.** The first step in the design process is to create a sketch of what your screens look like through a wireframe. Wireframes provide a rough page layout and can elaborate on the page content. A series of wireframes also illustrates the screen flow of a particular scenario.

To see what the webtechniques.com home page would look like as a wireframe, see Figure 1. Now, you might be asking, "Why bother? Why can't I do mock-ups in Photoshop or go straight to HTML?" But creating a wireframe helps you focus on how your site works and reads, not on how it looks. Once you start using Photoshop or HTML, it's easy to become distracted by the visual design and lose sight of the content and functionality that will drive your site's user experience.

There are different techniques for creating wireframes, such as pen and paper, or any number of drawing or presentation packages (Visio, Adobe Illustrator, PowerPoint). It doesn't matter what you use to create wireframes, provided you remember two things.

First, wireframes should be quick and easy to change. They're meant to provide you with a simple way to move through multiple design iterations. The more you iterate, the better your designs will be. If it takes too long to create your wireframes, then you're probably over-designing them, which brings me to the second point.

Wireframes shouldn't look like designs. They aren't art—they should be plain, simple, and functional. If you've given them beveled edges and are using the latest Photoshop filter, you've gone too far. I also make my wireframes in grayscale only, so that visual design doesn't become a distraction. Consider using PowerPoint as a tool for creating wireframes. The limited drawing tools help assure that your wireframes aren't over-designed, and it lets you present screens in a linear format to describe scenarios. It's also convenient for electronic distribution and for sharing notes among team members.

**Navigation Map.** While a wireframe tells you what goes on the screens, a navigation map is a visual representation of how the screens are linked together. These document the path variations for navigating between screens and they provide a means to check the consistency of your interaction design. Navigation maps are also quite useful as visual checklists of all of the pages for which you need to design and create content. Figure 2 shows a simplified example of a shopping cart

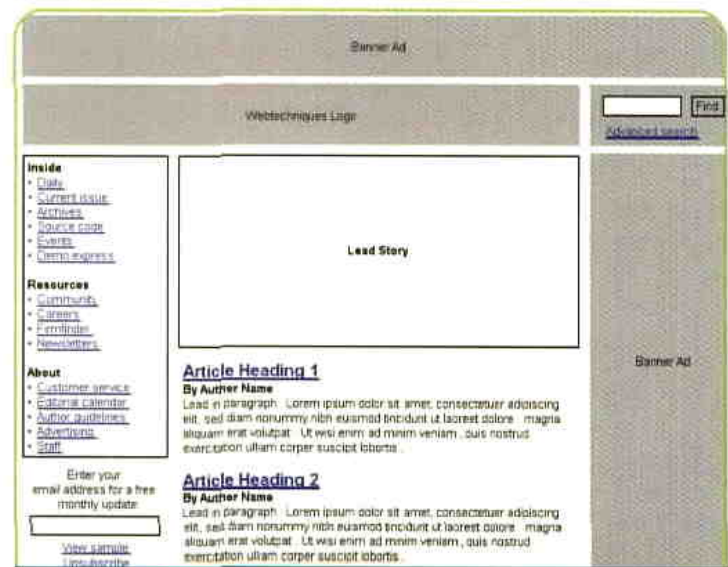


figure 1

WebTechniques.com as a wireframe. Wireframes help you focus on how your site reads.



navigation map. Currently, there is no standard visual nomenclature for drawing navigation maps. However, jjg.net ([www.jjg.net/ia](http://www.jjg.net/ia)) provides a good set of symbols from which you can start.

**Content development.** Form and function go together; so should content and architecture. If yours is a functional site, collaborate with your editor to decide what will appear on each page to guide users through the process. If you have a content oriented site, your information architecture should always guide users to the next article or other areas of interest.

## Site Architecture

So it's finally time to design the overall architecture of your site.

**Site structure.** Once you've prepared the individual elements, you need a site structure that supports your ideal user experience. Specifying your site structure is like designing the aisles in a supermarket. Keep in mind that different users may think about structure differently. For example, some people may look for the Chinese egg noodles in the pasta aisle while others will head to the international aisle. To find out what preconceived ideas users may have about your site structure, use a technique called card sorting.

Write down the names of your site's content and functionality components on separate cards and ask your users to sort them into groups. The results give you a sense of how they expect the site to be structured. Recruit about six people who are representative of your site's various personas. This will help you see whether there are any discrepancies in the ways different types of users would structure your site. Take special note of content or functionality names that confuse your users, and consider renaming them in your final design. Ask your users to explain why they grouped cards the way they did, then ask them to suggest a name for each group. After you're done, look for common groupings and use them as input for your own card sorting exercise to finalize the site structure.

**Labeling.** Once your structure is solidified, decide on labels for your sections and subsections. This is an extremely important task and shouldn't be taken lightly. If you pick the right labels, your users will effortlessly navigate through your site. Pick the wrong labels and your users may never find what they're looking for.

Don't be creative with your labels, they should be simple, to the point, and make sense to your target users. A quick way to test your labels is to ask your users to guess which of the main sections contain certain components of content or functionality. If they don't know where to find something, ask them why and ask them to suggest a label that would make sense to them. Always keep in mind that your section labels should be there to help users find what they're looking for.

**Site Map.** The site map is similar to the navigational map except that it focuses on overall site structure. Like the navigational map, this is a visual check and balance for maintaining site consistency, but it also serves as a reference point for site structure and labels.

**Site Level Wireframes.** In the same way that you created wireframes for specific site content and functions, you also need to create them for site-level elements. Site-wide elements include: home page, navigation system, main section pages, subsection pages, content page template, utility bar, and search.

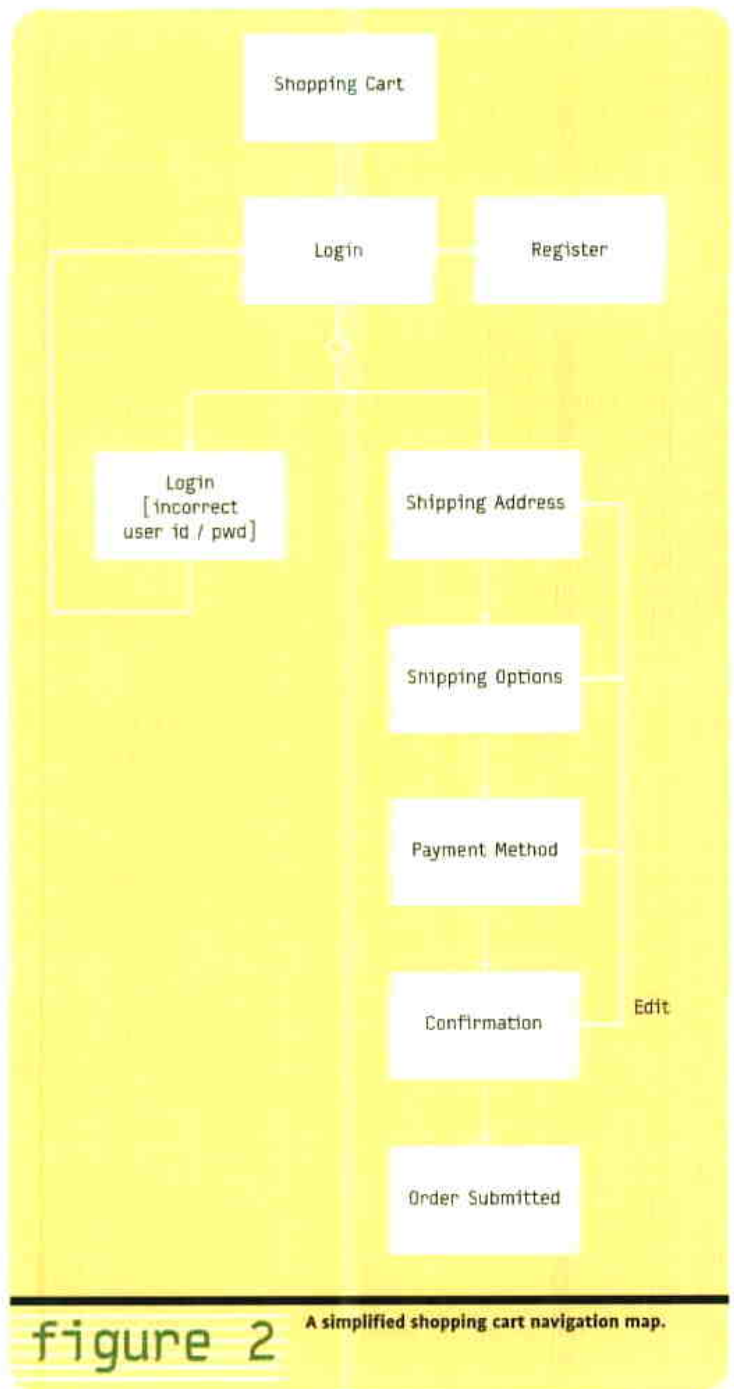


figure 2

A simplified shopping cart navigation map.

## A Final Word

Developing your skills as an information architect involves constant practice. The more you listen to users and observe them using your designs, the better you'll be at designing for them. To be a good information architect, you must be able to look at your designs not from your own perspective but from your users'. The more you see like them, the better you'll be. ><

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