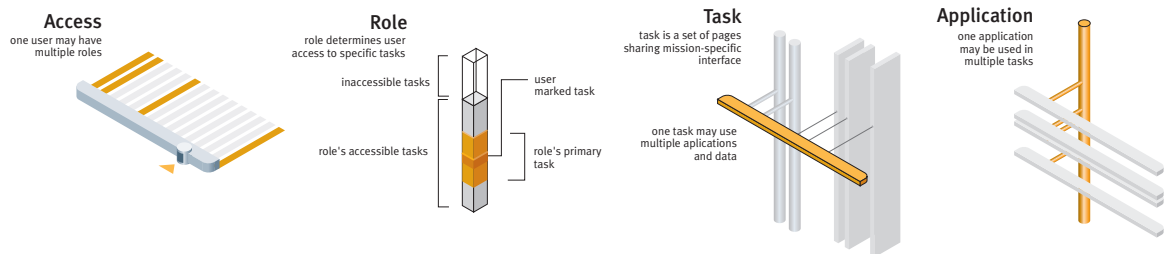


Why Your Online Projects Need
Information Architecture

A Dynamic Diagrams White Paper
by Lisa Agustin, Principal User Experience Consultant
and Kirsten Robinson, Principal User Experience Consultant

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What tangled web is this?

The first generation of online web sites consisted mainly of brochure content—a few static pages accented by a contact form. The online universe has since grown considerably more complex, with sprawling corporate sites and sub-sites; deep, database-driven knowledge repositories; e-commerce for everything; and highly productive applications.

With all this activity has come exponential growth in data. In 2006, the amount of digital information created, captured, and replicated was 161 exabytes or 161 billion gigabytes, which is about 3 million times the information in all the books ever written (from *The Expanding Digital Universe: A Forecast of Worldwide Information growth Through 2010* by IDC, March 2007). And that was just one year. The boom is a Big Bang.

Even if your place in the information universe is known, when customers can't find what they need when they need it, your landing site becomes a crater. No information is shared, no knowledge gained, no action taken, and no transaction completed.

Creating today's information-based web sites and applications requires more than some content and a search engine. It requires a plan that centers on users' needs, and brings business objectives into adherence with best practices for findability and usability.

Red flags

If any of the following scenarios sound familiar, you need to start thinking about your information architecture.

The information is there but the customer can't find it.

Your staff has received complaints from customers saying that they can't find information on your site that you know is there. Poor findability can be the result of unhelpful search results, a confusing site structure, or poor navigational systems. Customers end up consuming support resources or, worse, going elsewhere.

Information on your site is redundant, outdated, or missing.

If your web site has grown piecemeal without a solid architecture, new content may end up in the wrong place, while out-of-date content continues to receive traffic. Content removed haphazardly creates dead links and information gaps. As a result, users can't find what they need, and when they find outdated or inaccurate content, they lose confidence in your site.

Your web site's look and feel gets lost at lower levels.

Your organization has spent time and money deciding how to promote your brand online. The look and feel is obvious on your home page, on second-level pages, and maybe even third-level pages. What about the lowest levels within your site? Are your brand and visual design elements still strong and identifiable? Users should always be aware of your brand identity throughout your site.

Maintaining your large web site is an organizational disaster.

If your site lacks a scalable vision for growth, staff may be spending too much time patching existing systems, without making real progress. Responsibility for deep content areas gets abandoned while editorial battles over home page real estate undermines site usability and kills click-through.

You need to consolidate your web presence.

Your company has many different web sites, each with its own content, navigation system, and visual design. Branding is incoherent, content producers cannot coordinate with each other, and customers get lost in between. How do you proceed?

Your e-commerce application is thwarting sales.

You have a great product that people want, but too many customers leave the purchase process because it lacks guideposts, takes too long, and is unintuitive. Are they asked for unnecessary information? Do they have a total – including shipping – before they confirm? Are they wondering if the transaction will be secure?

No one can use your product.

Your online application may serve a great purpose, but no one is using it. It requires too much time and energy – too many clicks, confusing requests for data, too much scrolling, too many confirmations. Users can't navigate menus to desired tasks, and can't start and stop tasks they way they expect.

Plan before you build

Dynamic Diagrams uses proven methods to determine how your users, content, and business model inform the design of your web sites and applications. Our information architecture process starts with business fundamentals and delivers a solid foundation for design and development:

Start with a solid understanding of business goals.

Web sites and applications must serve your goals first. We take time up front to understand your business plans, organization, and culture. Stakeholder interviews and facilitated kickoff meetings balance individual and group input to focus the project on the right target.

Identify your users and understand their tasks.

Web site users often know what they want and how they want to get it – they just need to be asked and observed. Our user-centered research techniques include interviewing users about their needs and frustrations, as well as conducting one-on-one usability tests to determine how easily key tasks can be completed. This research helps us determine user navigation patterns and highlights problem areas that need special attention.

**Dynamic Diagrams
Information Architecture
and Design Offerings**

- User research
- Usability evaluation
- Information architecture
- Interaction design
- Visual design
- Web development

Inventory and organize your content.

It is important to analyze closely the content that will populate your web site. We make recommendations on how to organize your content in terms of categories and hierarchy and also determine how items within these categories relate to each other. Specific activities include identifying types and formats of content that are included on the current site (noting redundant and outdated information), and locating gaps, based on what users need.

Focus on findability.

Findability is about more than a search box. It means classifying content in a way that makes sense from users' perspectives. This includes not only knowing the search terms most likely to be used, but also defining the right categories for content, the right navigational structure for browsing, and understanding how pieces of information relate to each other across categories.

Create a logical and scalable structure.

Because growth is inevitable for most web sites, it is important to anticipate and plan for future growth. By creating an information architecture that anticipates this growth, we create a web site that will respond to your growing needs. For companies with multiple web sites, an enterprise information architecture creates structure and connections across content managed by different organizational units.

Develop a clear plan for access control.

Premium or value-added content calls for an access control system that will be unobtrusive and reliable. We identify which content areas should be available to which groups of users and determine the steps each type of user will follow to reach the content.

Design web applications that work.

Whether they are part of a larger web site or independent systems, applications require a different approach from web content. We apply user and task analysis to create a sensible process flow before designing the details of the user interface. Usability testing allows us to validate and enhance the design to maximize efficiency, effectiveness, and satisfaction. We're well versed in Web 2.0 concepts such as rich internet applications and user collaboration.

Create a foundation for a visual design system.

Successful execution of a site's look and feel is easiest on the home page and on other pages that are relatively high within the hierarchy. Making sure that the branding and visual design is just as strong at the lowest page level is a bigger challenge. Our systematic approach also helps determine how new areas of the site should look as the site grows.

The day we launched we saw immediate access to our new publications. Since then, we've seen our overall subscriptions increase in number; this is not a cyclical pattern. We're in a traditional discipline where people are wedded to print, so (this response) is much stronger than we anticipated.

Anne Fullerton,
International Reading
Association

Reap the benefits

Here's how information architectures designed by Dynamic Diagrams contribute to the bottom line:

Ensure that your web site or application is aligned with business goals.

When your web site or application maps to product development, marketing, and strategies for growth, your business advances.

Manage risk on different fronts.

By establishing the user and business requirements for the web site or application up front, you can identify and address contingencies that affect project cost and schedule. This is especially important when implementing new technologies such as a content management system.

Control design and development costs.

Investing in a solid information architecture allows you to build your web site or application toward a predefined price point, and limits the need for costly post-release design and development work.

Promote efficient service.

For online applications, a responsive information architecture helps customers complete transactions and intuitively learn new utilities. This translates into lower support costs, increased support availability, and faster response time.

Increase internal productivity.

For intranet sites, an information architecture that has been designed and tested against user needs allows employees to find what they're looking for quickly and easily. They spend less time looking and more time doing.

Lengthen your site's lifespan.

Online information accumulates rapidly. Web sites must be designed to evolve and grow to continue serving their audiences. A scalable information architecture acts as a roadmap for your site now and in the future.

Promote repeat business.

The easiest customer to get is the one you already have. Web sites, e-commerce processes, and online applications built on user-centered information architectures promote return visits and positive word-of-mouth marketing.

Next steps

As people encounter more and more data every day, the manner in which the data is organized and presented makes the difference between a failed communication and a successful one. Good information architectures transform data into understanding and thus to action.

Dynamic Diagrams has been developing successful information architectures for web sites, data repositories, e-commerce transactions, and other applications for more than 15 years. We use proven methods to develop user-centered information architectures that meet the needs of your users and help you achieve your goals.

Go to www.dynamicdiagrams.com or call us at **401.223.1233** to find out more about how we can help you design your optimal information architecture for your project.

For details on how we've helped other clients, read the case studies that follow.

Case Studies

Enterprise information architecture:

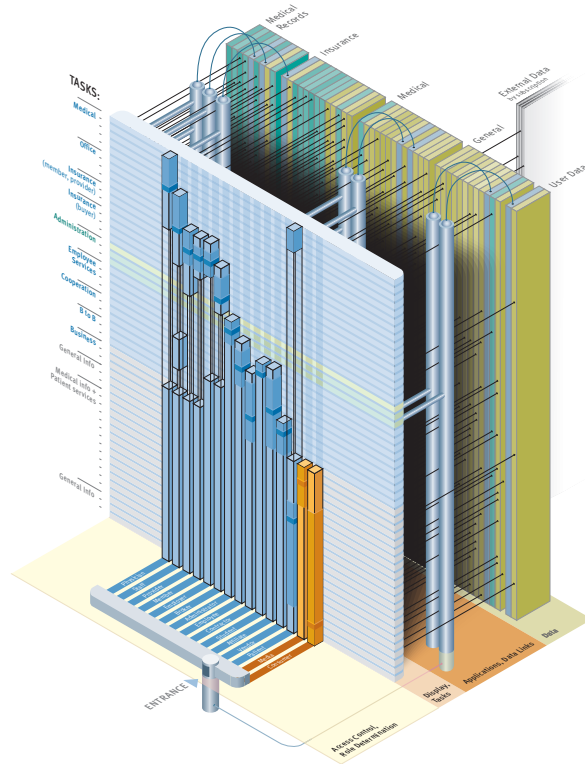
Sentara Healthcare

Sentara Healthcare serves more than 2 million residents in southeastern Virginia and northeastern North Carolina. It owns over 70 caregiving sites, including six hospitals, and networks them with caregivers, medical services, and insurance plans.

When Sentara decided to consolidate the organization of multiple existing web sites under a single role-based strategy, it turned to Dynamic Diagrams.

We designed and diagrammed an enterprise-wide architecture that would leverage a single content management system for different organizations, users, and domains. We analyzed the individual people, services, and locations that made up Sentara Healthcare to show how content ownership and access could be distributed across the organization.

After we created the enterprise information architecture, we worked with Sentara on a phased plan to architect and design individual corporate and health plan sites.



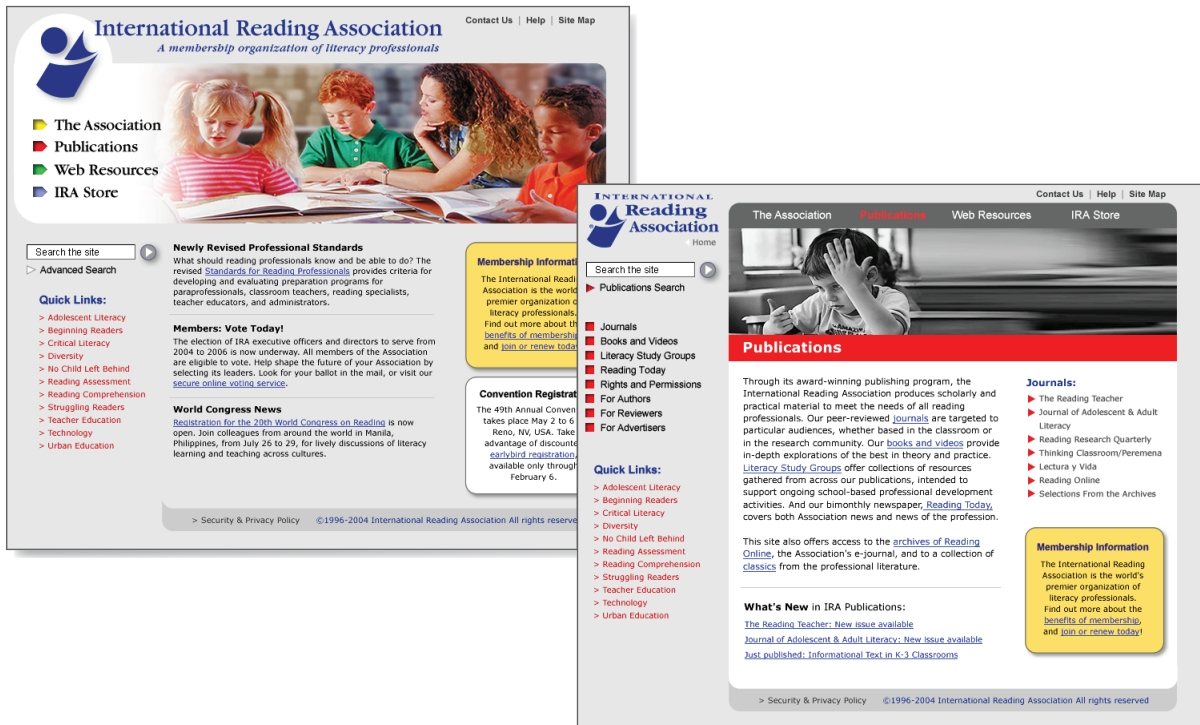
Large web site information architecture:

International Reading Association

Some professional associations choose to separate their publications from their organizational information. The International Reading Association (IRA) took a different approach. With a wealth of published and web-only content to offer to teaching professionals and the public, IRA asked Dynamic Diagrams for an online solution that integrated the two. Visitors would be able to search or navigate to specific topics and find the best information available, whether from a journal article, a book extract, or content created by the association’s internal experts.

Working with IRA editors, we developed a content hierarchy that organized the site’s pages and underpinned its new look and feel. Features such as color-coding the site’s categories, efficient global and contextual menus, and effective labels all derive from the information architecture analysis.

The architecture easily scales for the ongoing creation of new pages on meetings, advocacy efforts, issues in the media, and roll-out of future publications.



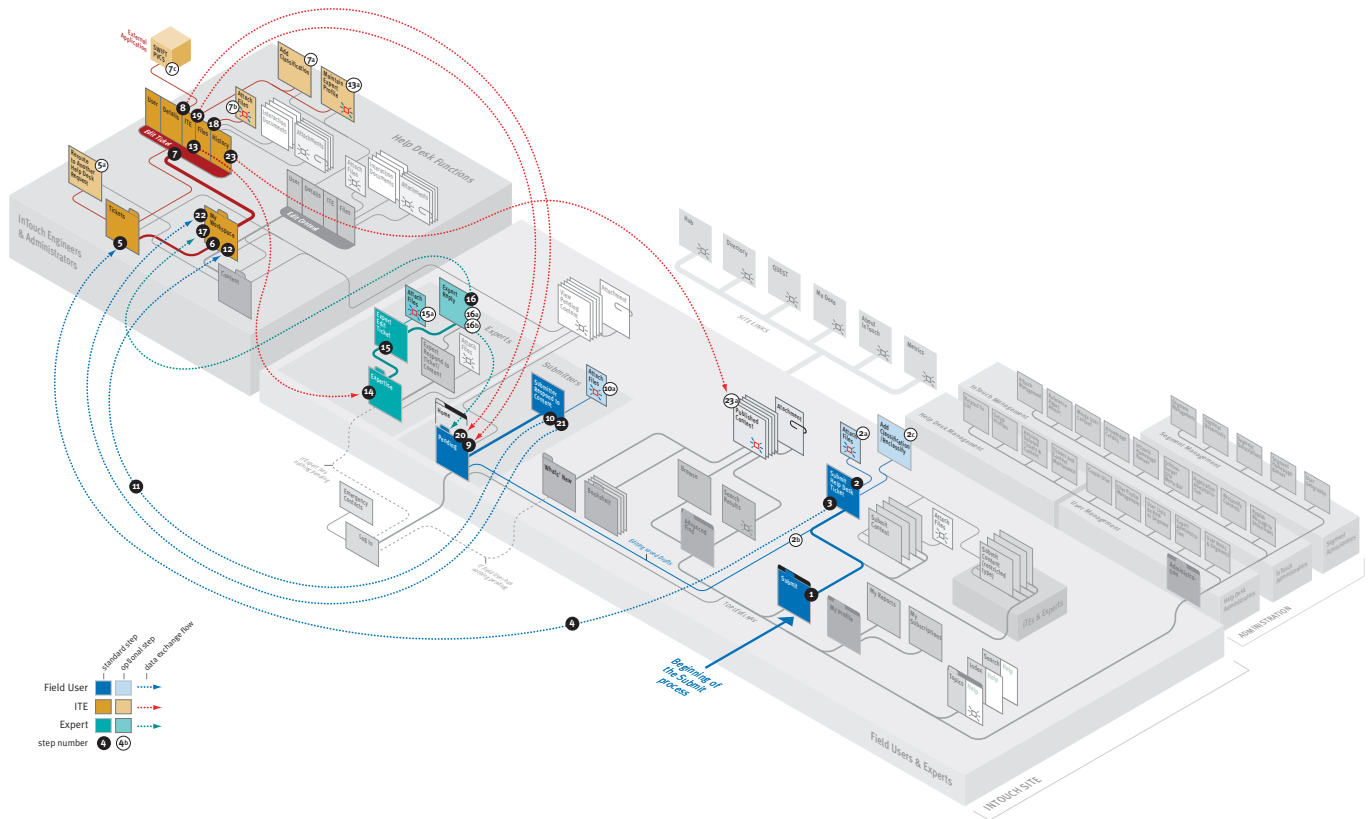
Application design:

Schlumberger InTouchSupport

Schlumberger Oilfield Services uses its InTouchSupport knowledge base to provide centralized operational support to employees all over the world, from offices to offshore oil rigs. Upon release of a new version of InTouchSupport, Schlumberger engaged Dynamic Diagrams to conduct a formal usability review of the application as a baseline for designing new features and targeting incremental improvements to existing functions.

We first created a diagram of the site that identified different modules, security levels, entry points, and back-end data repositories. We then visualized several of the most important data workflows within the system. These diagrams gave all the stakeholders in the project a way to see content and user interactions, clarifying discussions about what could and should be changed.

The first application of our analysis was a new browse feature designed to help users locate documents by drilling down through topics. We created an interface design for the feature that fit seamlessly as a new tab in the Find portion of the existing interface. The successful testing and release of this new feature marked the beginning of a new round of improvements to one of Schlumberger's key information systems



E-commerce site with access control:

CFA Institute Online Bookstore

The CFA Institute publishes books, journals, conference proceedings, and financial-industry research. As it implemented a new back-end e-commerce application for its online bookstore, the organization asked Dynamic Diagrams to improve the bookstore's user experience and visual design.

To improve the store, we gathered user requirements and conducted a usability study of the store's existing interface. From these activities we developed a list of improvements and diagrammed a more efficient ordering process. A key addition to the store's architecture was an area focused on CFA Curriculum Materials, where CFA candidates could find required readings and purchase a complete curriculum package in a single transaction.

Based on this work, we built a prototype of the redesigned store that we tested with CFA Institute members, resulting in further streamlining of the interface. As the project's technical vendor integrated our designs into their e-commerce platform, we supported the process with style guidelines and sample HTML code for the interface, while consulting on best-case settings for the user experience.

