

DESIGNING A USER-CENTERED INTRANET FOR SHAREPOINT ONLINE



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As a platform for a corporate intranet, SharePoint Online is an amazing toolbox, offering many powerful capabilities. But it's important to think about SharePoint as a technology platform, and not a turnkey solution that creates your intranet at the touch of a button.

A successful intranet implementation requires more than buying the right technology product. It requires designers, architects and developers to work together, applying their disparate skills and perspectives to determine the best platform to use in addressing your business needs and objectives.

In this e-book, we walk you through the five key stages of creating an effective intranet solution through a research-based design process:

1. User experience research
2. Information architecture
3. Interaction design and usability testing
4. Implementation
5. Integration and support



A Good Intranet Starts With Good UX Research

Too often, user experience research is an afterthought when organizations are gearing up to create a new corporate intranet. They may pull together an existing list of business objectives, and hold a few stakeholder meetings and interviews, and feel ready to move on to the next stage. The problem with this approach is that it assumes insights shared by stakeholders are an effective proxy for true user research.

Stakeholders certainly play an important role in an intranet initiative, and they are in some sense users. But their feedback and experiences probably don't represent those of the organization's core end users — the people on the front lines relying on the intranet every day as they do their jobs.

The overall goal in conducting user research is to avoid making assumptions about how people actually use the intranet. If you rely on faulty assumptions at this stage, those errors are likely to multiply throughout the design, development and implementation, resulting in wasted time and money on an intranet that doesn't achieve your business objectives — and that few employees are likely to use.

Tackling these assumptions is particularly challenging when your organization is replacing an existing intranet built on a previous version of SharePoint. Since you've done things a certain way in the past and you've come to certain kinds of conclusions, it's natural to make assumptions based on those experiences.

When you start building a new intranet, it's tempting to assume that you're facing the same kinds of problems and try to solve them with the same kinds of solutions. You might decide to have a CEO blog on the intranet home page because that's what you did before, and not because it solves a current or future business problem. And that's where you get into trouble.

To avoid letting assumptions derail your initiative, you have to start at the beginning with sound user experience (UX) research.

- 1. Define your business objectives in technologically agnostic terms:** For a successful implementation, it's essential that you start with a crystal clear understanding of the business problem you're trying to solve. The rest of the process flows from this definition and leads to a solution. You don't want to realize at the end of your project that you've developed an intranet that solves the wrong problem.





It's best to start with a discussion between your implementation team and your technology partner or consultant. Discuss what you perceive to be the main business problem, and explain how you know that's a problem. The problems you identify may need further evaluation before it makes sense to develop a solution.

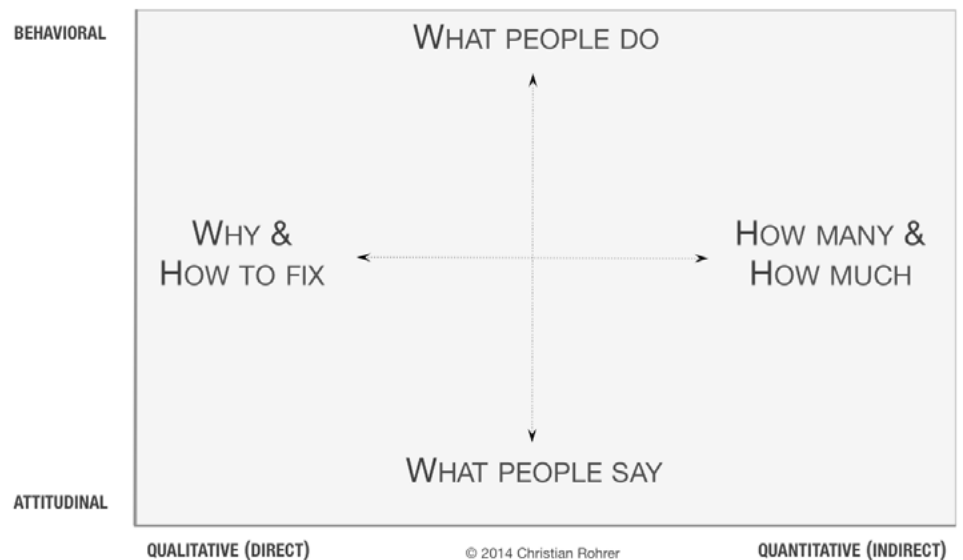
Defining business problems and objectives isn't easy; it asks companies to walk a fine line between being overly specific and overly vague. Many companies have trouble when it comes to how they phrase their business objectives, and how to avoid too many or too few objectives to accomplish in the scope of the project. For instance, if a company decides to upgrade to Office 365 because it wants to use the newsfeed and collaboration features and stop hosting its own infrastructure, those aren't truly business objectives. Those are specifics that could end up being refinements of a larger business objective around improving communication.

One common mistake at this stage is to define a business problem with a highly specific technology solution in mind. While that solution may ultimately be the best way to solve the business problem, it's risky to jump ahead and start applying solutions before the research is complete. Instead, be patient, and define your business objectives in technologically agnostic ways. At the appropriate point in the process, your UX consultant will assess different platforms with you to determine the best fit for your problems or needs.

2. **Use both attitudinal and behavioral research:** Different approaches to user research answer different questions; some produce qualitative or anecdotal information, while others produce more quantitative data. No single research method is going to provide all of the insights you need, so it's important to choose a combination of techniques to get the full benefit of sound UX research.

Attitudinal research focuses on what users say they do, while behavioral research focuses on actual user actions.

QUESTIONS ANSWERED BY RESEARCH METHODS ACROSS THE LANDSCAPE



For attitudinal research, you might choose to interview users and stakeholders (preferably in separate groups), asking them to talk about the way that they work in order to gain a better understanding of the issue that they're trying to solve. The interviews may focus on what technical limitations are contributing to their problems, but try to avoid talking about solutions or specific technology. A common method for behavioral research is called contextual inquiry, in which you observe users in their work environment and ask them questions about their actions and tasks.

Using both behavioral and attitudinal methods is important because there's often a gap between what people say they do and what they actually do, even if that gap isn't necessarily intentional or malicious. Identifying those gaps helps you find opportunities to make sure that your business objectives align with actual user needs. To get balanced results from your UX research, make sure to distinguish between stakeholder research and user research. As much as possible, treat them as completely different groups.

- 3. Frame the problems you want to solve:** Once you've completed your user and shareholder research, it's time to summarize your findings. It's one thing to have lots of data and take notes from an interview, but not everyone has the ability to make sense of the data from that interview.

Essentially, the goal is to frame the problem by creating an overview that helps you understand the scope, showing the various themes, issues and problems that emerge from the research, and subdividing problems by type. Once the consultant interprets the data from the research, they generate hypotheses and test their validity.

For example, let's say that a common theme in your user research indicates a findability problem with certain types of records. You could then show how this findability problem presents a barrier for one of the business objectives, such as employee engagement and collaboration. When possible, frame these problems in technology agnostic ways.

Once you've framed the research results in this way, you start framing potential solutions for further testing and verification. At this stage, you're not looking for a solution that's going to make every part of your business more successful. You're looking for ideas to test for the length of the project. Solutions come later.

- 4. Contextualize the problem and solution:** It's one thing to have a big list of requirements for your intranet, such as "we need SharePoint for content management." What that document means might be well understood at the time it's being drafted, but what about three or six months into the implementation?



If you frame these requirements in the context of a specific problem, it's easier to state the reason for the requirements by mapping them to business objectives and audiences. Your requirements should answer these three questions:

- 1) What type of person wants to solve a problem?
- 2) How are they solving the problem?
- 3) How does this match the business objective that we're trying to accomplish?

Now, instead of saying "we need content management," you're outlining a scenario: an administrator who needs a better system to ease their content management burden.

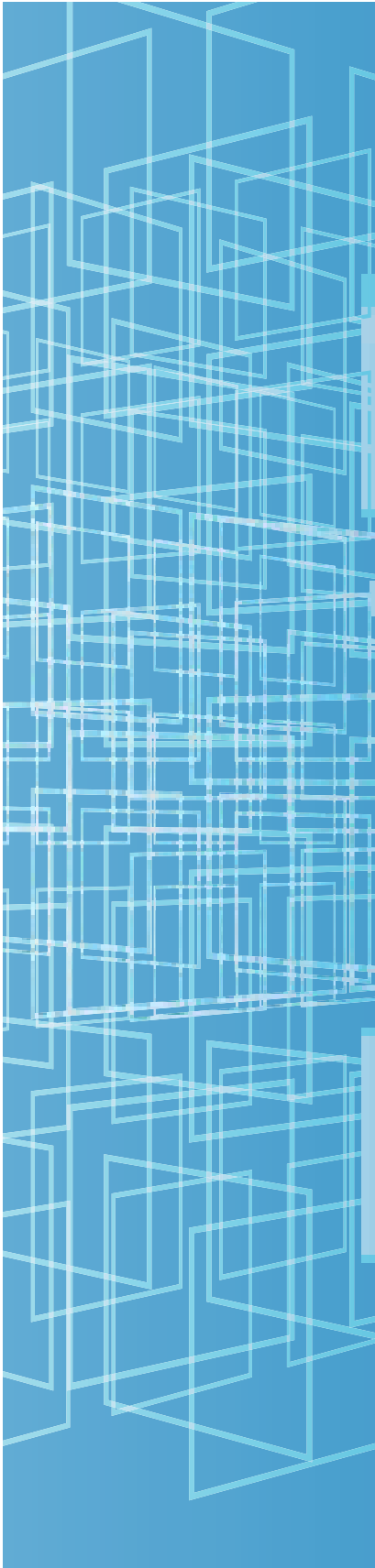
This scenario or usage-type process also helps to weed out assumptions that could lead to misunderstandings and conflicting solutions.

- 5. Assess how well SharePoint aligns with business problems:** After completing the first four steps in the UX research process, you're in a strong position to assess SharePoint's capabilities in terms of your needs and goals. SharePoint is a massive, feature-rich platform with vast capabilities, but you need to be clear about whether SharePoint is able to solve your particular problems out of the box, or if you're going to need to augment the platform with customization.

What companies want from SharePoint varies wildly. In some situations, an out-of-the-box solution might be a good solution, after testing to make sure it meets your needs. Other organizations want to augment SharePoint significantly to integrate with their existing business systems. In either case, UX research is the key to not only choosing better solutions, but also for setting realistic expectations for the technology.

A lot of people make the jump to using SharePoint Online, only to become frustrated when they realize that it has a number of highly specific technical and architectural limitations. Some of these limitations make it difficult to integrate effectively with external line-of-business systems, such as time-tracking solutions or an ERP system. SharePoint on-premises has its own set of limitations.





Here's where your consultant's expertise is key. Perhaps you could augment SharePoint to solve the business problem, or choose a hybrid solution, where some of the platform resides on-premises and the rest is in the cloud. Or maybe your solution can't be accomplished completely in Office Online applications. It's the consultant's job to educate you about those limitations and help you make decisions that are in line with your UX research and business objectives.

The Role Of Information Architecture In A Successful Intranet

When you're building an information management solution, such as a corporate intranet, it's easy to equivocate user experience with visual design. Visual design is certainly important in creating user-friendly, functional design. But no matter how appealing your intranet looks, or how many web parts you use on the home page, people are coming to your intranet to find content.

Their ability to find what they need depends on good information architecture, from the navigation to taxonomy and search functions, not to mention how well the content is written, presented and structured.

- 1. Addressing findability issues in information architecture:** When you test an intranet you're always going to run into some findability issues. And intranets naturally grow over time, no matter how well-designed and well-governed they are. Eventually, you're going to need to address these problems. Migrating to a new intranet provides a great opportunity to assess these problems and improve your information architecture.

Information architecture activities start in the user research phase. Let's say you conduct an open card-sorting exercise to uncover findability issues in the user experience, for example. The results of that research then inform the foundations of the information architecture, suggesting structures and navigation hierarchies.

- 2. The foundation of a content-first, mobile-first, touch-first approach:** The rapidly changing technology landscape is presenting new opportunities for creative solutions in information architecture. Instead of just assuming that what worked in the past is going to work in the future, consider applying the latest thinking from outside the SharePoint community to your SharePoint information architecture.

In the past, content strategy and content direction have been somewhat of an afterthought in information architecture. More forward-looking organizations are now taking a hands-on approach to how the content is directed. Since people are primarily using a corporate intranet to find and use content, it makes sense to take a content-first strategy to information architecture, setting up guidelines and designing the technology to support great, findable content.

Content inventories are the foundation of all content design, helping to understand what's available today and what will be on the intranet in the future. Mind-mapping, meanwhile, offers a visual way for people to understand the relationships that exist in taxonomies, and sitemaps show how the navigation is structured.

Similarly, the prevalence of mobile technology is also shaping the information architecture process. Adopting a mobile-first strategy acknowledges that the digital workplace now includes a variety of devices that are limited in bandwidth, interaction and size, requiring a new approach to content strategy and interaction decisions. These devices also have new advantages, such as mobility and portability, as well as intuitive touch screens.

For corporate intranets, responsive design is often seen as a way to solve the “mobile problem,” in that this approach automatically adjusts the intranet display to fit the restraints of any mobile device used to access it. But responsive design isn't just a feature of a well-designed intranet. Instead, it's a technical application of a new, adaptive reframing of how we do design in a world of ubiquitous devices.



In design, introducing constraints tends to spark creativity. If you have limitless options, you're not going to produce a very interesting solution. But when you apply constraints to your intranet design, such as requiring that it function well when accessed from a variety of different devices, you're forced to make decisions about what's important and find creative ways to present information.

And when your design strategy emphasizes a content-first and mobile-first approach, your intranet is going to naturally work well across all of the various devices and contexts that people use to access this information. When these come together in one package, you get the maximum benefit from your information architecture.

- 3. Logical vs. physical information architecture:** With any content management system, you need to determine how you're going to structure your information. And that means having a design that aligns two different information structures, which could be called the logical and physical information architecture.

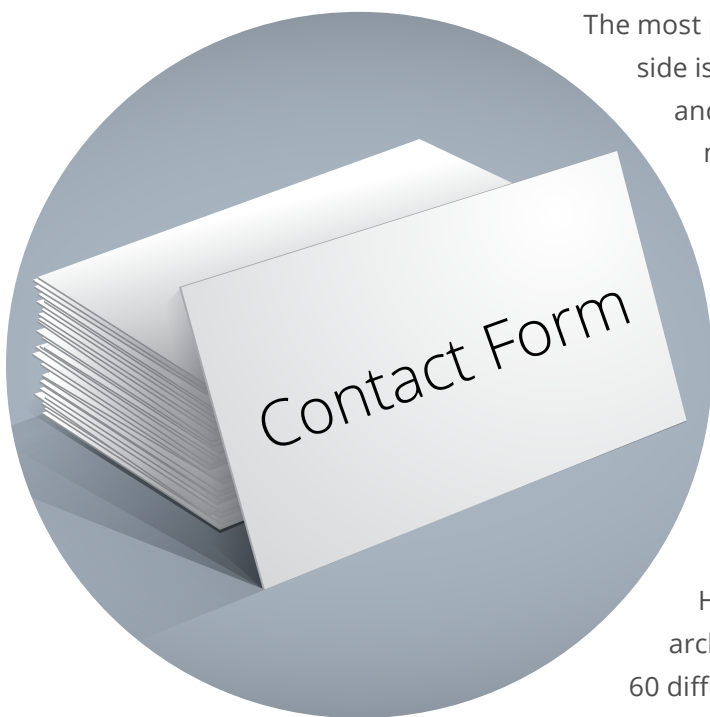
The logical side essentially focuses on the user's mental model for understanding the information. How do your users think about the relationships between information on your intranet, and how would they expect it to be categorized? From this perspective, good information architecture meets those user expectations for categorization, making it easy to access the information they need.

The most popular method for gaining an understanding of this logical side is through a card-sorting exercise. When you go to a website and see the titles for the global navigation, that hierarchy was most likely guided by card-sorting exercises. Card sorting is often used to develop navigation, taxonomy design and other elements. It's a way to build an information architecture that aligns with users' ideas and expectations about how something works in the real world, often called a "mental model."

You could think of it this way: The logical question is, "How do I design a navigation structure?" That question is essentially answered through card sorting.

Here's how a card-sorting exercise works: An information architect looks at the content on your intranet and creates 40 to 60 different cards, each representing a different type of content, such as an HR form. From there, users are asked to look at all these cards with different types of information and group them in ways that make the most sense, and then assign each group a heading. This organization exercise gives the information architect a sense of how the user sees the content, providing a good starting point for the information architecture.

But the information architect also has to build information architecture within a CMS like SharePoint, and every CMS has a physical component with specific configuration requirements. The physical question is, "How do I build it in SharePoint?" SharePoint provides its own physical information architecture in terms of how it handles search, for example, and metadata classification





systems, which it refers to as content types. Many of these design approaches are based on industry best practices, but they're only useful when used in the appropriate context.

The key is to infuse research and insights into the CMS-specific application, instead of jumping right into designing the physical information architecture. Start with understanding how your users think about and categorize information before looking at the best ways to use SharePoint in order to meet user expectations.

- 4. Migrating content:** When you're ready to migrate content from a file share, CMS or previous SharePoint intranet to your new site, a common mistake is to think of migration as just an upgrade in which you move all of your content from one platform to another across versions. Taking that approach essentially means you're packing up your existing mess and bringing it with you.

Migrations are the best time to rethink how you're structuring information, whether you're moving from version to version or from an on-premises solution to SharePoint Online. Before you start a wholesale transfer from SharePoint on-premises to SharePoint Online, for example, conduct a ROT analysis, which stands for redundant, outdated and trivial. By flagging and trimming content that you don't want to bring into the new solution, you're able to improve the performance and success of your new intranet.

Interaction Design And Usability

When it's time to design the user interface (UI), you want to continue applying the problem-solving approach from earlier stages. That means continuing to use research to identify and validate problems as new issues emerge in the UI design. Essentially, you're working with business objective research, user research and brand research. Understanding the brand is vital in developing the visual design for the UI.

For a corporate intranet, the goal of brand research is to understand how people perceive the organization from the inside, so that the visual design aligns with that perception or elevates that perception, if that's one of your business objectives. UI design doesn't exist in a vacuum. It's important to make design decisions that reflect the intent of the project and all work done thus far.

Here are three useful exercises at the UI design stage:

- 1. Task flow diagrams:** In this exercise, you follow the process of how a user is going to complete a task. Starting with the beginning of the task, you map out the actions they perform and the intended outcomes. Task flow diagrams aren't common, but are highly effective in helping you to understand what's important to users and their current obstacles, and how to best alleviate them through your visual design, interactive design and content design.
- 2. Wireframes:** People often think of wireframes as a design mockup minus the colors, but that's a problematic approach. Rather than a visual mockup of the design, the goal of a wireframe is to represent the bare bones of the design: a hierarchy of what exists on the page and the priority of that content.





Sometimes people create content diagrams that show this hierarchy, which could be considered a low-fidelity wireframe. Similarly, a visual comp could be considered a high-fidelity wireframe: It shows the visual hierarchy, but lacks the functionality of a prototype.

- 3. Prototypes:** You could think of a prototype as essentially an interactive wireframe. They demonstrate the interaction design and how users will be able to interact with it. One of the advantages of prototypes is that they are often a viable alternative to exhaustive documentation. Instead of a usage scenario document that takes a paragraph to spell out how tabs should work, for instance, a prototype allows you to describe and demonstrate that functionality in an intuitive way.

If your budget allows, creating prototypes at multiple stages allows you to capture usability research throughout the process. You'll get user feedback more quickly, allowing you to refine the prototype through several iterations until you finally have a prototype that's effectively what you're going to implement, at least for some key pages.

Usability Testing Throughout The UI design Process

For a successful UI design, it's important to involve users to test hypotheses in various stages. When it comes to high-value functionalities that are used by many people across the organization, it's important to have users interact with them as early as possible in order to identify obstacles and refine the UI accordingly.

To paraphrase usability expert Steve Krug, running a usability test early is more useful than running one late in the process. When you test early, before the design is fully realized, you have time to respond to user feedback. Changing course is likely to require more backtracking the further you go in the design process, which slows the project down.

Usability testing might be thought of as the flipside of the user research done in the information architecture stage. Open-card sorts help designers understand how users think about content, creating mental models that inform the information architecture. Closed sorting is similar, but it's technically a form of usability testing. Instead of asking users to create and name groups of content, it asks them to place content within existing categories.

In a sense, a closed-card sort is a way to validate your interpretation of the earlier open-card sort, and ensure that you've designed effective site navigation. In order to avoid bias, make sure you test users that did not participate in the earlier open-card sort.

At this stage, you might want to use online information architecture research tools, such as Optimal Workshop. This usability testing suite includes a reverse card-sorting tool called Treejack. With Treejack, you essentially build a dummy global navigation and have users identify where they would go in that navigation to find specific pieces of information.

Implementing The Solution

Now that the designers, architects and developers have worked together to create a research-based solution to your business problems, it's time for the rubber to hit the road and implement the solution in SharePoint. By using all of these different skill sets to solve problems together, you're able to maximize the platform's effectiveness.



The hard part about this stage is that you need a SharePoint consultant that not only understands all of the stages in the design process, but also understands the technology's limitations and how to work with them to create a solution. While SharePoint has limitations, these constraints also provide opportunities for creativity.

For example, if you're working with SharePoint Online in the context of the Office 365 suite, there are specific restrictions that limit or change a developer's access to certain areas of the SharePoint platform. The reason for limiting access is that Microsoft wants to prevent a developer from changing code on the back end that ends up bringing down another company's Office 365 environment.

While this contained environment safeguards the stability of Office 365, it makes it more difficult to integrate SharePoint Online with other line-of-business solutions, which may present an obstacle in some situations. Customizations take place in client-side development, with limited access to the server. A good SharePoint consultant should be able to explain these limitations, and work within those constraints to give you the best possible solution for your business problem.



In the implementation stage, two key elements are quality assurance (QA) and user acceptance testing (UAT). These are often difficult stages in a SharePoint implementation, but if you've followed a research-based design process, these steps allow you to ensure that you've framed the problem effectively and put forward solutions that solve them.

QA and UAT are fundamental to a successful implementation, but also challenging. In a UAT session, it's easy to get sidetracked, with business users and stakeholders focusing on surface issues, like color preferences. It's important to stay focused on what's important, which is whether or not they think the solution is going to solve the organization's challenges.

Supporting Your SharePoint Investment

Finally, you need to support your new intranet implementation with training and governance. Training is essential to successfully meeting your business objectives, and should always be taught and delivered in context and with narrative. Governance, meanwhile, ensures that your team is able to maintain the solution at a high level and expand the intranet as the needs of the organization grow.

When it comes to training, a common mistake is to focus exclusively on the technical side, such as documentation that shows how to upload a document to SharePoint or how to search for a piece of content. The problem is that people don't learn well in a vacuum. They need context and narratives that make this technical information useful to end users.

Training material should help users connect the dots and understand the business problems you're trying to solve and how to use the SharePoint environment to solve them. When you deliver content in a narrative that's relevant to a business user, they're more excited about using the technology to solve problems that truly matter to them, helping them become more productive.

Governance is often seen as an extremely complex topic, but it's important to ensuring a successful implementation. Governance focuses on managing information, and how you'll grow your solution and ensure your taxonomy design will be easy to use in the future. You'll want to develop rules for how users create new sites, for example, and identify auditing tools to monitor how users tag documents. All of these kinds of governance decisions are valuable ways to give users ownership and accountability in the implementation.

In the end, a successful intranet is based on a solid design process more than a technology solution. A thorough, research-based design — from UX through information architecture, UI to implementation and support — creates a solid foundation for your company's productivity, both today and in the future, as technology continues to evolve.



About Portal Solutions

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To learn more about how information architecture, research and testing could help you develop a great corporate intranet, please visit [our digital workplace blog](#).

