

The user-centered approach to website design

Richard Bowden PhD, PMP

RB Consulting

March 2009

This article looks at the key principles and steps that make up a user centered approach to website design. By adopting a user centered approach to designing a website, the user(s) becomes the focus of the design process and designers are seeking to design an appropriate website that the user(s) will find both easy to use and useful.

Usability & Usefulness – two key principles

In the design and development of websites, usability and usefulness may appear to be similar terms, but they are related to different aspects of the design and development process. Usability is concerned with improving the *ease of use* of the website, while usefulness is concerned with improving the *relevance* of the website to the user as they are completing a task

By improving the usefulness of a website, the user will find the information and functionality provided by the website to be relevant to the task at hand and this helps to increase the user's expectations and satisfaction with using the website. The quality of the website content is a critical factor in determining the usefulness of a website. When writing content for your website, it is important to bear in mind; who is the target audience for website and what does this audience want from the website?

In simple terms, if the site's content is written in simple and easy to understand terminology with short sentences for the intended audience and the appropriate management process is used to keep the information content current; on the balance of probabilities, the website will register high marks for usefulness.

Usability is focused on designing the website to be easy to use. So, irrespective of whether the website is relevant, the key question for assessing usability is; does the user find using the website to be a chore or a joy? There are a number of well known pointers for improving the usability of a website including; ensuring that the user knows where they are on a website as they are browsing and ensuring that the user is able to find information quickly, given that people scan rather than read content on a website. In addition, it is important to format the content to be self evident to the user as they scan to minimise the amount of thinking that they have to do. Finally, if the user should get into some bother on the website, there should be an immediate facility to inform about the problem and offer a means of recovery for the user.

With the above principles of usability and usefulness in mind, designers and developers want to establish a detailed understanding of the user's requirements in their work routine by asking such questions as shown in the accompanying table

What is the user attempting to accomplish in terms of specific tasks and goals in their work?

What information does the user require from the website to progress their work and what's the format that they would prefer to work with?

What information does the user require from the website to progress their work and what's the format that they would prefer to work with?

What set of features does the user require from this website?

What are the user's expectations about how the website will work?

Given the user's profile in terms of skills and experience, how can a website better assist the user in problem solving, learning and memory related tasks during their work routine?

As you can see from the above questions, this approach encompasses quantifiable items such as tasks and goals in addition to qualitative aspects such as a user's personality and their problem solving style

What are the required steps for a user centered design?

Having looked at the principles of user centered design, let's now consider some of the steps that should be incorporated into a process to complement the user centered design approach.

Involve a sample set of users

As this is a user centered design, an appropriate set of users should be included on the website design project team. By appropriate, I mean a representative sample which reflects the experiences, personality and skills set of the users who will eventually be using the new website. These team members will work with the designers and developers to provide timely and first hand feedback on the website design and as the design evolves to a fully completed site.

It would be ideal, if the user representatives can join the project team and work directly with the designers and developers as this direct communication helps to eliminate any confusion. However, if the user representatives are not available full-time to the project or they may be customers of the organisation it is possible to compile a detailed picture of their behaviours and requirements using personas and scenarios. Personas are a technique used by website designers, where detailed profiles of different types of users are compiled from observing users and discussing their requirements. Related to the personas approach, scenarios are descriptions of different types of tasks that a user does when visiting the website. Using personas and scenarios, the project team can compile a detailed set of requirements.

Identify the requirements via a set of representative tasks

With contributions from the user representatives, a list of tasks can be compiled that the redesigned website is required to provide such as 'Look up a customer's latest bill' or 'compile and print off a purchase order'. Essentially this task list is a set of user requirements that includes new features and functions to be added to the redesigned website and details on how these features/functions are to be

displayed on the website, in order to achieve the agreed usability and usefulness standards for the particular set of users.

As the task list / requirements are being discussed and finalised, ideas and other recognised best practices from other websites should be included in the discussion. The designers and developers can provide this input based on their experiences on other projects together with any research of other websites by the project team. The justification for including any of these 'best practice' suggestions will be based on how well they support the users' and wider business requirements, but this type of 'outside' input helps to ensure that the project doesn't get too routed in how tasks are performed currently.

Progress the design and development of the website

When designing the website, the structure of the website and the relationship between the different pages can be illustrated visually using wireframes. The wireframe for each page will also depict how the page will look to the user and the location of the designated information and functions for that page.

In addition to the agreeing the look&feel of the website, an analysis of the proposed site's content will establish how best to structure and locate functions and information on the website to make it easy for the users to find. The resulting information architecture from this analysis can also be depicted visually to help with the review and sign-off by the project team

Related to these areas, the project team needs to decide on a development approach for the website; where they can either design and document all the requirements before starting the development or they can choose to approach the development in an 'Agile' manner, where they group the requirements into iterations and develop, test and put live each iteration before moving onto the next set of requirements.

As the development progresses, testing of early releases can be completed by the users who can then provide feedback to the developers. After an appropriate number of test cycles within the project team, additional users, external to the project team can be selected to provide a detailed assessment which will provide valuable feedback as the website is readied for rollout to the wider user community.

Follow-up work after the rollout

After the website is released and put live, it is important that the approach and process behind managing the content of the website is monitored, as one of the contributors to the website's success is the ongoing quality of its content. This monitoring also helps to ensure that the web designers and developers maintain an ongoing contact with the user community and are keeping abreast of changing business and user expectations.

This follow-up work helps to address the question; is the website achieving the expected results and assisting the users in a meaningful manner. This assessment of expected versus actual benefits also allows for changing user expectations and business requirements to be an additional factor in planning and delivering future enhancements. Nothing stays static for a long period and we have all seen the "Ah I know we thought we needed X, but in hindsight, we now need Y" situation.

In summary, with the user centered approach, the users' requirements can be clearly articulated and together with the hands-on user involvement in the design and development work, the website project is focused on the appropriate set of features to be delivered. Then post-delivery, ongoing monitoring of the website is important to help keep the website updated to meet changing business requirements.