

RiverCare knowledge-base design:

Improving a website to increase usability and understanding

Nienke Nooren, Bsc Industrial Design & Engineering, University of Twente, The Netherlands

Background information

RiverCare is a Dutch research program focused on river research in the Netherlands. The research program consists of eight different projects, conducted by twenty different researchers. For presenting their research results, they use a website, called the RiverCare knowledge-base:

<https://kbase.ncr-web.org/rivercare/>

This website contains information about RiverCare itself, the conducted projects and results of the research.

The website is currently under construction and has to be improved. One of the problems is that the navigation of the website is not clear enough for the user. This problem can lead to users not exploring the full website, because they can't find what they want.

Another problem is that not all users understand the research results. Because all twenty of the researchers want to show what they have done research for, the text structure on the website differs per project and can sometimes be too hard to understand for the user. A user will quickly leave the website if it is too difficult to comprehend.

A main problem concerning the design of the website is that it is not considered as an attractive website. The website is built for spreading knowledge and not to be the prettiest, but not being attractive can make the user lose their attention or interest. A website can actually be seen as a business card. Having an attractive business card will make you stand out, which is important to reach a wider audience and to make people remember you.

Altogether, it is important to improve the website, because RiverCare wants to share their knowledge with the rest of the world. If the website is not user-friendly enough, RiverCare will lose potential users.

The corresponding research question for this project is:

How can the RiverCare knowledge-base be improved in order to increase the usability and understanding of the website?

Approach

In order to answer the main research question, a few steps have to be made. After the analysis, the first step is doing a usability test, focusing on the intuitiveness of the website. After this test, the most obvious problems will be addressed and the first requirement can be stated. On the basis of these requirements, the first ideas can be made. The ideas will be evaluated and redesigned and eventually one concept will be chosen to be made into a test website.

The next step is to test this concept with the second usability test. This test will focus both on the navigation or usability and also on the understandability of the information of the website. After this test, the requirements can be redefined and improved concept ideas can be made.

Eventually, the best concept will be chosen and perfected and this is going to be the end result. This concept will not be tested during this bachelor assignment, but will be tested in the future.

Results

The process started with doing an analysis to learn everything about RiverCare and the website itself. After gaining inspiration to improve the website, the idea phase started. In the idea phase, a usability test took place. This test showed the main usability problems of the website, which could be translated to a list of requirements for designing the new website. The list of requirements was used to design several concepts. Eventually one concept was chosen for further development. This concept has been elaborated in a working prototype. The prototype was tested during the concept phase. On the basis of the results of the second usability test, a final list of requirements was made, which inspired the final concept. The final concept was chosen in consultation with RiverCare (see final concept in image 1).

Because the final concept bettered the navigation, attraction and understandability, it is the best improved version of the RiverCare knowledge-base.

Even though a final concept has been made, this is not the end of the design process of the website. Before everything can be implemented a lot still needs to happen. First of all the client has to choose how much of the final concept can be implemented in the website. When the final concept is eventually implemented in the website, the process is still not over. To perfection the website, it should be tested one more time. This test doesn't have to be as extended as the previous tests. A simple survey online can be enough. Frequent users or users who are subscribed to the NCR mailing list can receive an email about giving feedback about the website in an attached survey.

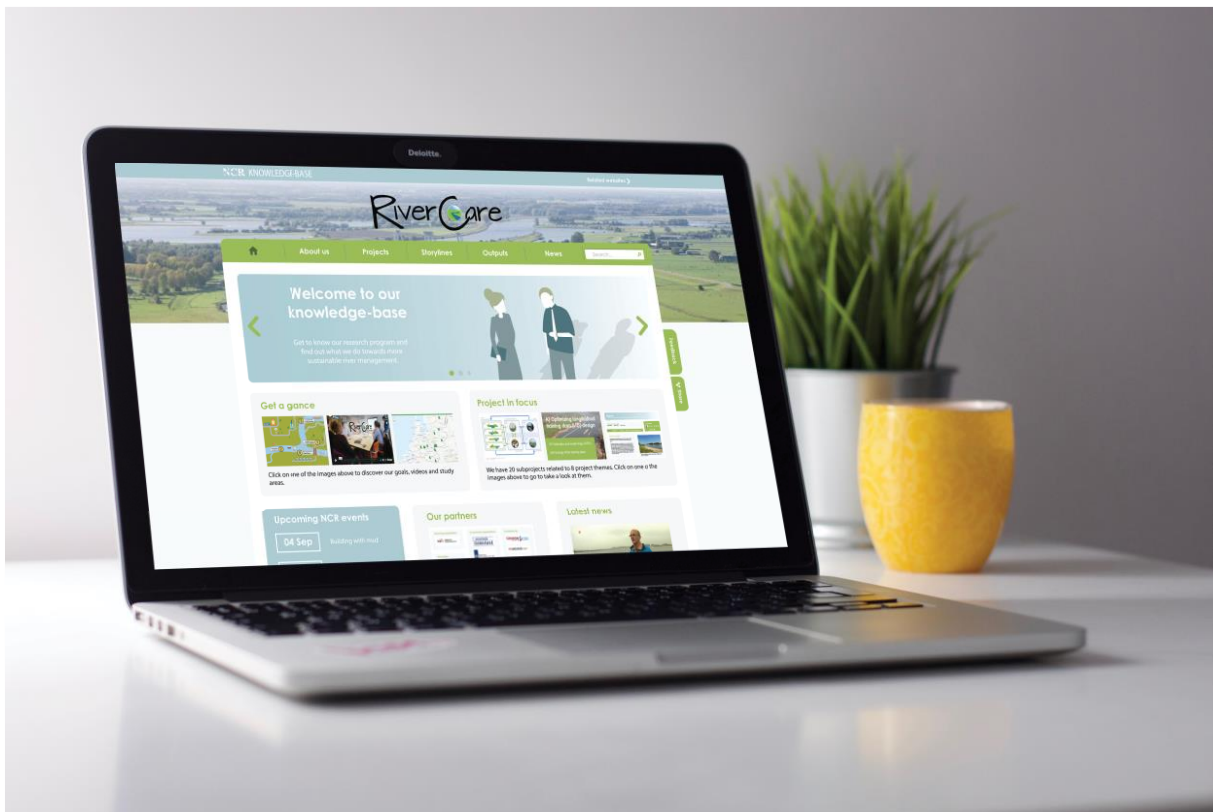


Image 1: Final concept RiverCare knowledge-base