

## 3. Web usability analysis

When testing usability, it can be done through two ways of working, which are usually complementary:

- **The review of usability experts**, who apply the principles and best practices of web design. This path is that of heuristic analysis, and it uses Jakob Nielsen's ten heuristics.
- **Test batteries with representative users**, who are asked to perform a series of tasks. By observing the performance of these tasks, problems and points for improvement can be located.

### 3.1. Heuristic analysis

One of the techniques for reviewing usability is heuristic analysis. It is usually carried out by more than one expert consultant, taking into account the 10 points stated by Jakob Nielsen:

1. Visibility of the system status
2. Match between the system and the real world
3. User freedom and control
4. Consistency and standards
5. Error prevention
6. Recognition instead of remembrance
7. Flexibility and efficiency of use
8. Minimalist design
9. Error recovery
10. Help and documentation

### 3.2. Testing with real users

The test with real users is based on the observation and analysis of the interaction of a group of real users with a profile similar to that of potential customers while they interact with a prototype of the web or with the web already built.

These observation sessions are organized around tasks that users have to complete, such as searching for certain information, making a purchase or reservation, sending an inquiry,

registering... Meanwhile, the consultant notes errors, difficulties or the unexpected elements that are emerging.

<https://www.youtube.com/embed/ObMmmX8FtBs?controls=1>

### 3.3.1 Hotjar

Is one of the most used tools to carry out this type of analysis, as it has the following functionalities:

- Recording of user sessions, through which you can see where users encounter problems when completing a process.
- Generation of heat maps with the areas of the screen where the pointer has moved.
- Heat maps of the vertical scroll, to know what percentage of users have reached each point on the page.

<https://www.youtube.com/watch?v=nJym8OIQCY8>

### 3.3.2 Yandex Metrica

It is the equivalent of Google Analytics from Yandex, the Russian search engine. In addition to statistical traffic data, Yandex Metrica includes many of Hotjar's functionalities: browsing session recording, click heatmaps, vertical scroll usage, and form usage analysis.

<https://www.youtube.com/watch?v=ONdc1K5TBd8>

### 3.3.3 Userlytics

Is a very complete tool for doing web usability tests. It has several functionalities that allow:

- Carry out tests on various prototyping platforms (Adobe XD, Invision, Proto...) on mobile applications or on websites already published.
- Select the participants through the definition of a user person using demographic filters (country, age, sex, education, occupation, income, technological profile...)
- Dismiss participants through personalized questions.
- Select the operating system and the type of device on which to test the website or application: desktop / laptop computer, mobile phone or tablet.

- Define a series of tasks that participants must answer through open-ended questions, single-choice or multiple-choice questions, card sorting, completion or scoring questions...
- Obtain both qualitative and quantitative data through metrics and advanced graphical reports, automatic transcriptions, annotations...
- Access session recordings with automatic transcripts of session audio.
- Access metrics such as time spent on task, success or failure rate, SUS (System Usability Scale) and NPS (Net Promoter Score, a loyalty measure that quantifies the likelihood that the user recommends the website or the application).
- Access personalized reports with recommendations for improving usability.

### 3.3.4 Lambdatest

One is during the final stage of front-end development, to validate that the interface is optimally displayed on the wide variety of existing devices, operating systems and browsers. Front-end developers work by performing tests in various browsers and resolutions, but it is impossible to test the web in all of them manually.

<https://www.youtube.com/watch?v=dfnVAAw6PV4>

### 3.3.5 Polypane

To achieve the goal of publishing a website with an optimal user experience, it is necessary to carry out many checks that are often carried out through various tools. Polypane is an all-in-one tool that allows you to:

- Test forms, menus and other interactions on multiple screens at once.
- Review metadata for issues
- Preview the web share on various social networks
- Detect broken links.
- Have an overview of the page structure: headings, focus order, document structure...
- Improve color contrast to ensure good readability for everyone.
- Carry out several accessibility tests
- Detect layout issues such as horizontal scrolling.

<https://www.youtube.com/watch?v=tdOKznrXuow>

### 3.3.6 Other tools

Some of the tests that can be performed are:

- **Card sorting:** it is a technique that is based on the analysis of how users group and associate with each other a predetermined number of cards in different categories, which can correspond to the different thematic categories of the web, to the navigation structure, etc. .
- **A/B tests:** sometimes, on a website that is already highly optimized, we want to do tests to increase conversion. They are usually small controlled experiments, for example, to change the design of a button or its location.
- **Satisfaction surveys.**
- **Tools to test multiple copies.**

## 3.4 The web usability report

Once the usability tests have been carried out, it is time to extract and present the conclusions. This is why it is necessary to prepare a web accessibility report.

<https://www.youtube.com/watch?v=u5RYuIU5jq8>

Ideally, a usability report is presented in a slide format and structured as follows:

1. Initial screen with the name of the website analyzed and the usability experts responsible for the analysis, as well as the date it was carried out.
2. Executive summary (in one or two slides), with a summary of the objectives of the test, the profile of the participants and the most important findings, accompanied by the most important figures that support the conclusions.
3. Objectives of the analysis.
4. Methodology used to carry out the usability tests: how the selection of users was carried out and how the tests were carried out (remotely or face-to-face and with which tools).
5. Profiles of participants
6. List of analyzed tasks.
7. List of post-task questions.
8. Results, organized by category, on several slides. For each category, the summary of the observed data and the most relevant positive and negative points is given. It can be accompanied by figures and textual quotes from user comments.

9. Errors and incidents, also organized by category. Screenshots or videos of the incidents can be included, so that the development team has references on how to reproduce the errors.
10. Recommendations for actions to be taken, based on each of the key findings and organized by priority.
11. Disclaimer, including the factors that may have affected the usability test.
12. Appendix with links to documentation videos, screenshots, annotations and text quotes from users.
13. Final screen with the company logo and contact information.