

Usability optimization with eye-tracking

Evaluation examples of recorded user data



Eye tracking analyses in user studies

As part of user studies, testers interact with websites and perform typical tasks, such as placing an order or finding information. User behavior is recorded by tracking gaze position on the screen with an eye tracker. Mouse position, clicks and scrolling behavior is also recorded. In addition, testers provide explicit feedback in questionnaires or Thinking Cloud recordings.

This document features some examples of findings from our past studies. They show the work of our usability experts in evaluating recorded user data. All data comes from real recordings with real testers.

Why usability testing?

- Satisfied users become customers, make recommendations, and revisit a website.
- Early identification of problems in the design will save cost of development.
- User analyses provide an explanation for known problem, such as a lack of conversion from the analysis of live data.

Why eye tracking analyses?

- It is easy and convenient for participants to record the eye tracking data. Testers are happy and motivated to participate in studies.
- Eye tracking is intuitive, the natural behavior is analyzed, and problems are identified while completing tasks.
- The analysis of user behavior is unbiased, neither opinions are given, nor personal interpretations are made.

Procedure of a usability study

1. Planning

- The contents and purpose of the study are discussed in a pre-study meeting.
- You review the study design and approve it.
- Our experts create the study in the EYEVIDO software.

2. Execution

- 10 test users take part in the study in the EYEVIDO usability Lab.
- Gaze plots and mouse interactions are recorded. The testers also answer questions about the usability of the product.

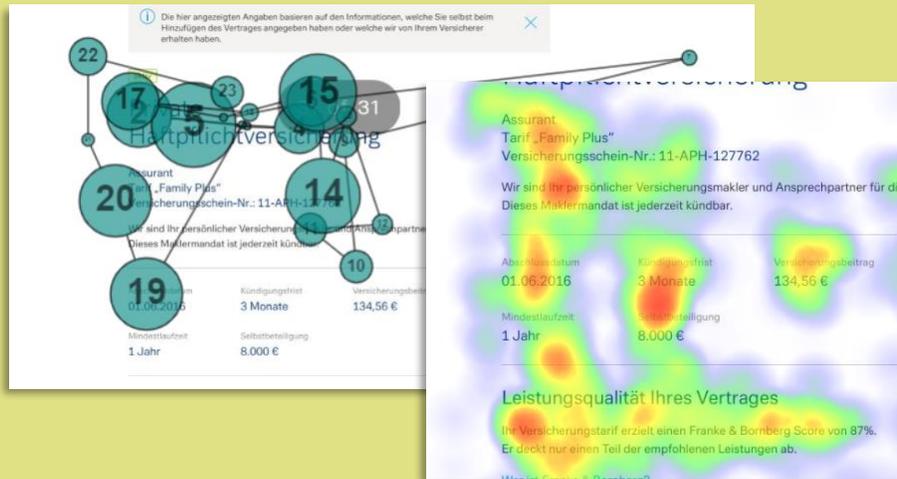
3. Evaluation

- You can view the recorded data in the web portal.
- Our experts evaluate the data and create a report. The UX report points out problems and provides suggestions on how to fix them.

Results: This is what you will gain from us

1. Study data in the web portal

You will have access to the EYEVIDO web portal allowing you to view the recorded data. Feel free to explore the data yourself. Maximum transparency, you can follow every detail.



2. UX report

Evaluation of the user data in the format of a PDF slide set with visualized user data, numerical evaluations and concrete recommendations for course of action.



Tester with ID



Problem



Positive Feedback



Reccomendation



Excerpt from a report

Example finding 1: Menu too long

- The menu was used when searching for a student job.
- The eye tracking data shows that the testers only looked at the upper part of the drop-down menu and clicked on an entry in the upper menu area after a few seconds.
- More suitable menu items in the lower part of the drop-down menu were not noticed and weren't clicked on.

- **Recommendation :**

- Remove redundant entries from the menu and limit them to a maximum of 8.
- Introduce headings in longer menus for better structure.



Design idea
drop-down menu



| |
|-----------------------|
| Studenten |
| Nebenjob |
| Duales Studium |
| Abschlussarbeit |
| Absolventen |
| Trainee-Jobs |
| Berufseinsteiger-Jobs |

ALPHAJUMP

Jobs 2 für Arbeitgeber

Jobsuche einfach besser

Dein persönliches Deutschland

Alle Jobs

Absolventenjobs

Young Professionals

Trainee-Jobs

Nebenjobs

Aushilfsjobs

Ferienjobs

Duales Studium

Projektarbeit

Abschlussarbeit

Berufseinsteiger-Jobs

Studenten-Jobs

Hidden Champions

2 von 4

Angaben zum Studium.

Finde Jobs, die genau zu Dir und deinem Studium passen.

Wie bist Du studiert?

Wie bist Du studiert?

Weiter

kostenlos, persönlich & sicher

„I had to click around longer to find the right job“

User data from two test users. Both only look at the first entries on the menu.

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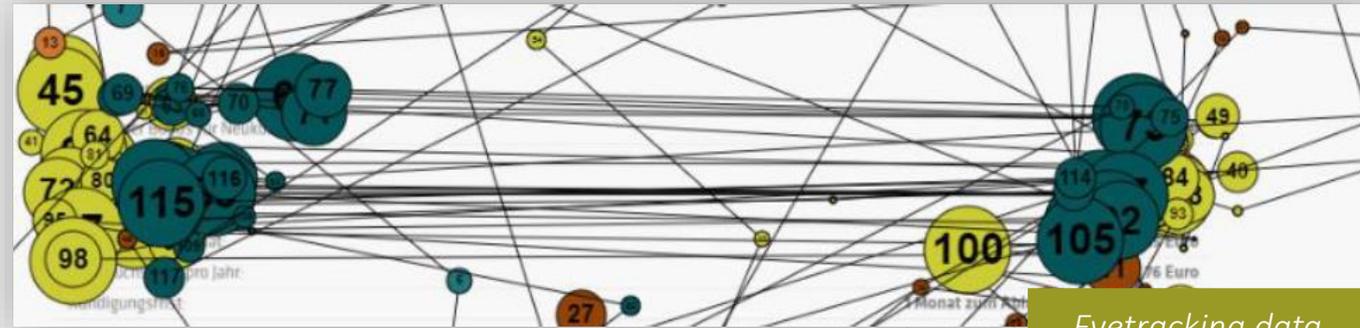
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Example finding 2: Table too wide

- In the rates table, the testers were given a task about the provider's price structure.
- The information in the table is too far apart: the eye movement data shows that users found it difficult to follow the line to find the correct price. This led to a lot of double checking because they were unsure.
- Long saccades (eye movements) are evident here by back-and-forth gaze bouncing. This is unnecessarily exhausting for the users.

| Ihre Vorteile: | |
|---|---|
| Einmaliger Bonus für Neukunden ² : | Euro |
| Preis- und Tarfdetails: | |
| Arbeitspreis pro kWh: | 24,37 Cent |
| Grundpreis pro Monat: | 28,55 Euro |
| Verbrauchspreis pro Jahr: | 1073,76 Euro |
| Kündigungsfrist: | 1 Monat zum Ablauf der Vertragslaufzeit |

Original



Eyetracking data

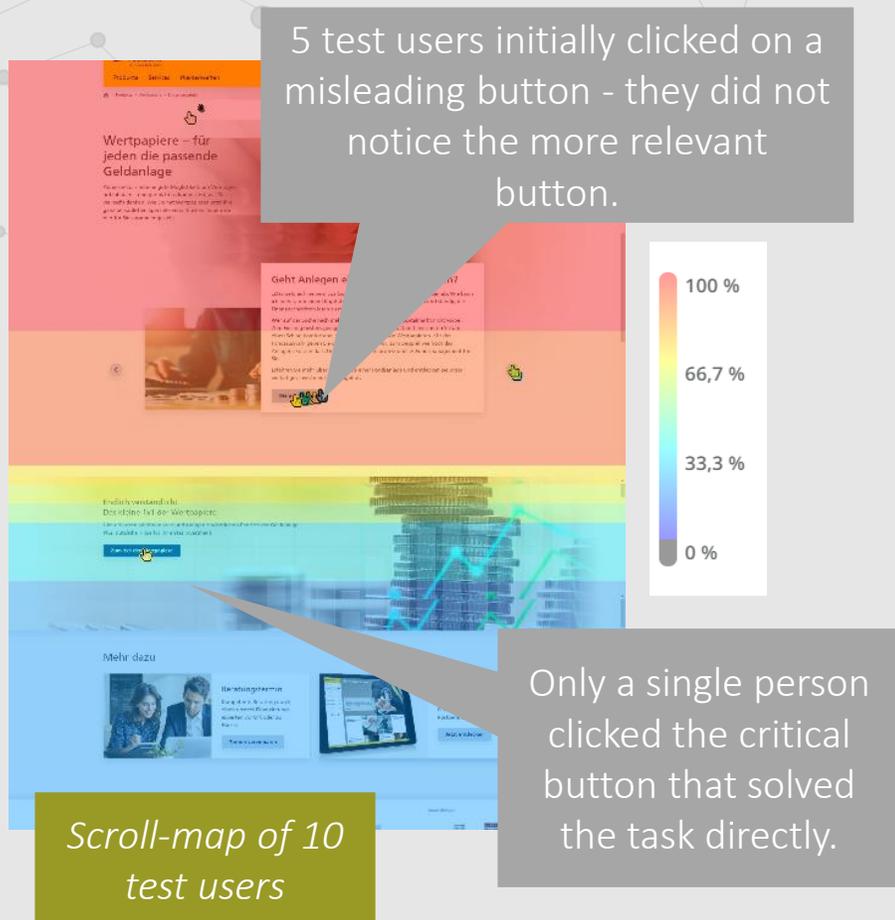
- **Recommendation:**
 - Reduce the distance between the two columns.



Design idea
drop-down menu

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|---|---|
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Example finding 3: Important content too far down



- The test users had the task to find a certain subpage with information on a website.
- In the user data of the 10 testers, it became clear that the decisive button was only visible to 3 out of 10 people - the remaining testers did not scroll far down enough to see the button on the page.
- The button in question linked to one of the most important functions on the page, which meant that only a few of the testers were able to access it directly.
- **Recommendation :**
 - Make the content in the upper area more compact to reduce the scroll depth to the crucial button.
 - Redesign the labeling of the misleading button at the top to make it clear that the link is not leading to the target.
 - Reconsider whether the order should be revised in relation to other functions.

Example finding 4: Button covered

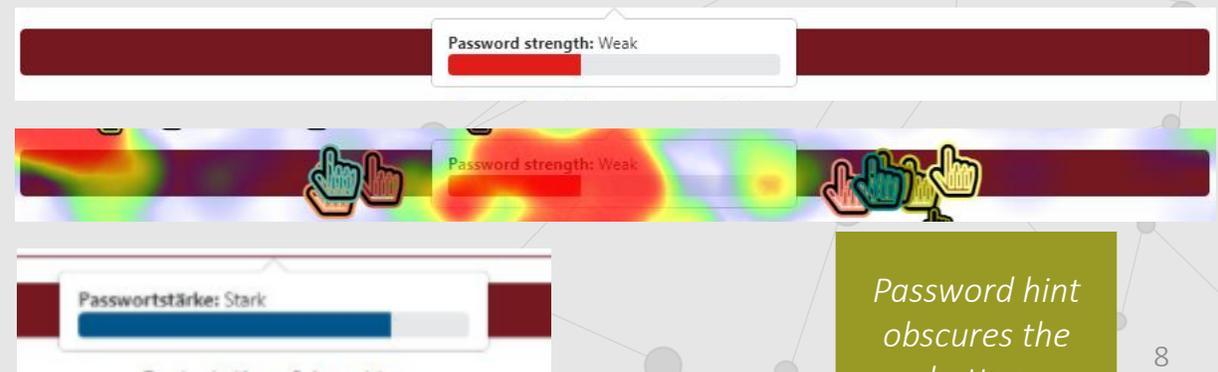
- 10 test users had the task to register themselves for an online tool, which required them to enter a username and a password.
- In the analysis of the click data, it was evident that it took a relatively long time to click the button. The positions of the mouse clicks were unusual, as the clicks were not in the fixed area but to the right and left of it.
- Only upon closer inspection of the recorded screenshots did it become clear that the password strength hint box covered the large button to have to be clicked to complete the registration. The users fixated on the password hint box while trying to click on the button underneath it.
- **Recommendation:**
 - The password strength hint box should not cover the button. Especially since many users received the hint that the password is strong enough.
 - A positive feedback to a strong password, should be displayed in green (instead of blue) to show that the password is accepted.
 - In case of a weak password, it must be indicated which characters the password should contain to be sufficiently secure.



Eye-tracking heatmap and clicks of 10 test users



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Password hint obscures the button

Example finding 5: Text too long

- The participants of the study dealt with an informative page on energy efficiency. The page was very long and contained a lot of text. Users had to scroll quite a bit to access all information.
- With the help of eye tracking, it became apparent that the individual text segments were not fully read. The testers often started reading and then stopped reading after a few lines and jumped to the next title. The titles were always looked at, even further down the page.

Recommendation:

- Shorten text blocks or use keywords, if possible, to avoid large chunks of text.
- Titles must always reflect what will be covered in the following block of text to encourage reading in case of interest.



Eye-tracking heatmap of 10 testers reading a text section



The evaluation on a text block shows that the second part of the text was only looked at by 5 out of 9 people.



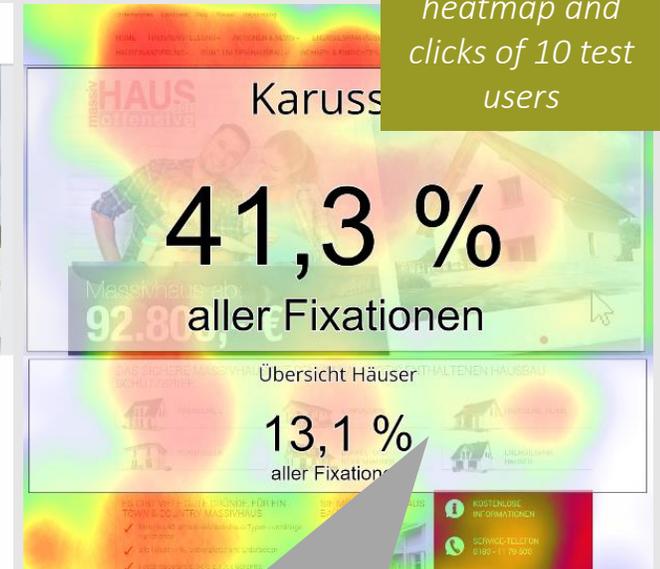
Heatmap shows the most intensely viewed areas and the relative barely fixed lower areas of the text sections

Example finding 6: Carousel ad too dominant

- The testers of the study searched for a suitable house on the page of a house listing. A clickable carousel ad with changing offers and information was positioned very prominently on the page. The relevant and important overview of the houses was displayed below it.
- The carousel ad area captured a large portion of attention, accounting for 41% of all fixations. The area was very large and attracted attention due to the changing information. But the area was not all relevant for the task.

Recommendation:

- Check whether the contents of the carousel are of great importance for the conversion rate of the page. Remove carousel if necessary and present relevant content structurally next to each other.
- Increase attention on the house overview, through better positioning and increasing visual attention (larger font, better contrast with background).



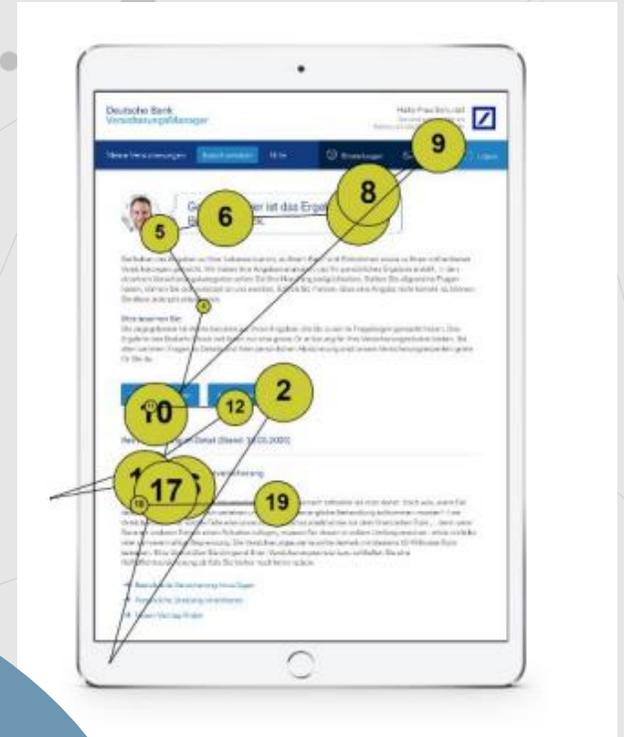
The relevant area received significantly less visual attention than the very dominant carousel



Use Case Deutsche Bank

Deutsche Bank, has been using EYEVIDO Lab for years to optimize their digital services with usability testing. The use case shows how eye tracking and thinking cloud were used to reduce bounce rates.

The sophisticated study design with an alternation of mockups and live web pages could be implemented in EYEVIDO Lab without programming skills.



“Experts at Deutsche Bank’s retail banking can now identify issues with user experiences on websites and applications — and quickly fix them. EYEVIDO Lab helped us to make our services more intuitive, more efficient and more pleasant to use.”

OUR CLIENTS TRUST US

- Companies use EYEVIDO Lab in different environments: In-house or at service providers, remotely or in the lab, for prototypes or live tests.
- For individual projects or integrated into every step of the development process



"The UX team of the business customer division of Deutsche Telekom used EYEVIDO to optimize the Cloud PBX website. The test was successfully completed with many new insights and concrete recommendations for improving the Cloud PBX website".



University of Koblenz

"Conducting the study was straightforward and the software was easy to use."

Book your usability test with us **NOW!**

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