

Use Case Deutsche Bank: Eye-tracking and Thinking Aloud

The Corona pandemic continues to accelerate digitalization and an increasing number and variety of tools are being installed and used. The target groups are becoming broader; even sophisticated services are no longer used only by people with technical expertise.

Therefore, the user-friendly design of solutions plays a very important role for Deutsche Bank and should enable every user to access products and services. Consequently, even in times of a pandemic, feedback from customers is integrated into the development processes.

The new VersicherungsManager helps Deutsche Bank customers manage their insurance policies. Usability must be simple, secure, and trustworthy, ensuring customers to entrust their sensitive data to the system.

During the development of the new VersicherungsManager, different communication channels were used to collect feedback from testers and real users. User flows were analyzed. In a live A-B test, different design versions were compared, and questionnaires were sent by e-mail. However, conversion dropouts appeared in the click path, the causes of which were unknown and needed to be investigated in more detail through deeper user testing.

Usability testing to increase conversion

- To identify conversion problems the Deutsche Bank uses EYEVIDO Lab as a perfect addition to other testing methods such as live data analysis.
- With a combination of eye-tracking and Thinking Aloud analysis, both intuitive behavior and explicit feedback can be collected for a complete picture of the user experience.

User study with eye-tracking reveals usability problems

In collaboration with EYEVIDO, Deutsche Bank's CustomerLab team has been carrying out user studies with eye-tracking for years. Testers complete tasks, in this case, adding a new insurance. EYEVIDO Lab records how they interact with the web page. Eye-tracking detects where testers look at. Usability problems can be identified through this data, for example when information is not perceived, or content is viewed multiple times and evidently not understood. The advantage of eye-tracking is that users behave as naturally as possible and do not have to give explicit feedback. They behave almost as if they were using the application at home.

Thinking Aloud as an insight into the user's world of thought

Testers are also given tasks during the Thinking Aloud test procedure. While interacting with a website, they express their thoughts verbally which are recorded and processed by the EYEVIDO Lab software. Testers share their user problems, give praise and criticism, or ideas for improvement. However, the interaction with the software is strongly influenced by thinking out loud. Testers interact more slowly, fixate elements with their eyes while talking about them, or dwell on details for a long time to express their opinions about them.

The best of both worlds: Eye-tracking with Thinking Aloud

Since the Thinking Aloud approach influences natural behavior, the analysis of simultaneously recorded eye-tracking data makes little sense. However, the expressive feedback is very valuable and can explain surprising behavior.



Figure 1 Heatmap with gaze data on the VersicherungsManager

The solution in the test procedure for the VersicherungsManager usability study was to use both approaches in sequence. The testers were first given the task of adding an insurance policy and could interact with the website as they would in an everyday situation at home without being bothered. Only afterwards were they asked to go through the same procedure again and to express their thoughts aloud. The combination of both approaches made it possible to evaluate intuitive behavior and to understand the users' motivations even better.

Early testing prevents undesirable developments: Study design combines mockups and test environment imperceptibly

The VersicherungsManager was already tested in the prototype design stage before the new developments were integrated into the live system. Since customers in the live system have access to the VersicherungsManager via their own online banking, the testers were also asked to access the service via this route. However, it was not possible to use real online banking for data protection reasons, but only a click dummy with fictional data. In the study design, the participants were led to an InVision click dummy that represented their online account. Via clicks the testers then reached the test environment with the VersicherungsManager, without noticing the change of systems. The study design was technically implemented in such a way, that the necessary login to the test environment did not have to be entered by testers but was completed in advance by the study supervisor. Due to the seamless connection of both test systems, the entire study appeared to the testers as if it had been created from a single source and was therefore very close to reality.

Corona-compliant study conduction

Data was collected in the EYEVIDO tester lab under corona-safe conditions. Ventilation and disinfection of the area and lab equipment are part of the standard procedure for dealing with

the unique situation. A glass shield and face masks were used to protect the tester and the study supervisor. The mask did not cause any difficulties in recording the eye-tracking data and voice recordings.

Results: high knowledge gain from eye-tracking and Thinking Aloud

Several specific usability problems were identified through the data. For example, information presented in an info box was mistaken as a button and clicked on by testers.

The arrangement of the content on the dashboard could be optimized based on eye-tracking data and important content arranged at the positions with the maximum attention.

Even more interesting were the comprehensive insights that were gained by Thinking Aloud. For example, it became very clear at which points within a click path information was displayed too late and inaccessible for the test participants. It also became apparent that testers wanted more information on the dashboard, for example the benefits of the VersicherungsManager and information on data protection.

The high demands placed on the study - both in terms of study design, and implementation, were successfully met and led to a significant gain in knowledge for the further development of new Deutsche Bank products.

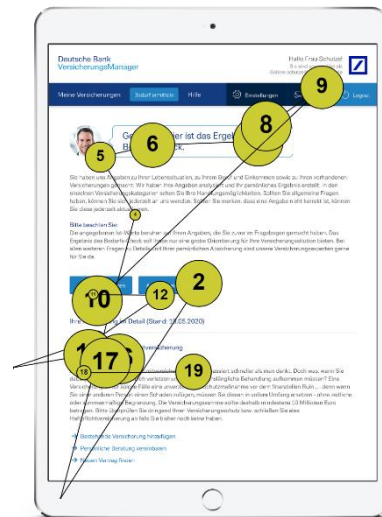


Figure 2 Heatmap with gaze data on the Versicherungs-Manager



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