Improving the user experience of a ticket machine interface

Deutsche Bahn is the largest railway operator and infrastructure owner in Europe, carrying about two billion passengers a year.

Source: Deutsche Bahn, 2017

We aimed to improve the user experience of Deutsche Bahn's touchscreen user interface for customers, thereby improving the ticket-buying experience.

Situation

Deutsche Bahn sells more than 183 million tickets a year across 6,700 ticket machines at 3,900 locations in Germany and neighboring countries. These ticket machines are one of its most important distribution channels. The railway company asked us to help it test a new touchscreen user interface it was developing for its ticket machines. It wanted to refine the design and the overall process to maximize the user experience for its customers.

Approach

We did four iterations of qualitative interviews with participants representing a mixture of Deutsche Bahn's target users. The first iteration focused on testing different design concepts and the second and third on the needs of different audiences. In the final iteration we tested a revised concept of the current ticket machine interface based on the quick wins from the previous interviews. We had participants complete tasks with a prototype of the new user interface concept while also gaining insight into their previous experiences with ticket machines.

Across all four iterations, we observed users' behavior and gathered detailed feedback about their experiences with the new user interface. At the end of each test, we gave recommendations based on the findings and helped define next steps with client stakeholders who attended the sessions.

Outcome

By conducting this study with an iterative approach, Deutsche Bahn could test different concept ideas and refine them after each iteration. After hearing users' feedback first-hand, along with our insights, the client's design team took immediate action to advance their concept. They could focus on what their users wanted as they redesigned the new ticket machine user interface. Since 2006, our research and design experts have been helping Deutsche Bahn to improve the user experience of other customers' touchpoints, too, such as the DB website and app.