



HØGSKULEN I VOLDA

Web Documentary (WD201)

# Eye-tracking report

Experiment on the usage behavior of interactive websites



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a study from

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Test person during the eyetracking study © Lina Martens

# 01 Introduction

We live in an era where technology has allowed us to delve deep into understanding human behaviour. One fascinating technology that's making waves is eye-tracking. It is about studying how we naturally look at things, and how our eyes move when we read, browse a website, or watch a video. Eye tracking is a technique that precisely records and analyzes where a person's gaze goes, how quickly the attention shifts, and what elements attract the eyes the most. It provides an insight into the human mind, shedding light on questions related to visual perception, user experience, and the impact of design choices on information processing.

For web documentaries, it's crucial to understand, how viewers behave, because you want to keep the user's attention on the most important elements of your product. This is a key part of surveying the meaning of the web documentary. You want to engage the user and increase the audience. By analyzing eye-tracking data, we as creators can optimize the layout and content presentation to keep the audience captivated.

In this study, we focus on the already existing web documentary “A Simple Life”. It employs various ways of presenting content in line with what we plan in our web documentary. That includes 360 footage, personal stories and therefore people-driven stories, and video and picture footage. This is what this study is interested in. What can we improve in our web documentary project compared to the presented “A Simple Life” documentary? You can view the experimental documentary [here](#).

The question we are trying to answer is: How could the web documentary “A Simple Life” be improved in the fields of usability, pedagogical functionality and visual attention and how can we use the findings of this web documentary for the design of our own? How we answer these questions will be explained in the following chapter “Methodology”.



Test person with eye tracking glasses © Lina Martens

# 02 Methodology

To answer these questions, we have decided to use a mixed methodology. On one side we use the Tobii 3 Pro glasses and the adjacent software to record eye movement and to be able to analyze the data created. On the other side, we used a quantitative survey with qualitative elements.

We have worked with the concept of unassisted recall and assisted recognition to portray the visual attention aspect of the question. We have included a series of 5-Point-Likert-Scales to come closer to answering the usability aspect. Open questions alongside choices of different presentations of content that have worked or not worked in the eyes of the participants help answer the pedagogical functionality aspects of this study.

## Participants

Due to the short amount of time and limited access to technology we have gathered 5 participants. Important to note is that the people participating in our study fit our target group of younger people between the ages of 16 and 25. We would have liked to diversify our sample more, but the time restraints made it difficult.

|                              | Participant 1 | Participant 2 | Participant 3 | Participant 4 | Participant 5 |
|------------------------------|---------------|---------------|---------------|---------------|---------------|
| Age                          | 22            | 22            | 20            | 23            | 21            |
| Gender                       | male          | male          | male          | male          | female        |
| Country of Origin            | Germany       | Spain         | Spain         | Germany       | Germany       |
| Experience with Eye Tracking | none          | none          | none          | none          | none          |
| Studies                      | Media         | Media         | Media         | Media         | Media         |
| Web Doc Student              | No            | No            | No            | Yes           | No            |



We conducted the experiments in a smaller, soundproof room with fixed lighting to ensure the same circumstances for the participants. The glasses were installed and calibrated. They were assured to not have time limitations and were greeted with the text on the survey:

Hello,

thank you for participating in our eye-tracking experiment.

In the following, you are going to view an existing web documentary. Afterwards you will answer a survey about what you have just seen. Note: The questions asked are not based on knowledge or are in any way judged or graded. No answer is right or wrong, so feel free to answer to your best abilities.

Your answers are going to be analysed anonymously and are not tied to personal data that can be connected to your personal. By pressing the "continue" button you are agreeing to your answers and eye-tracking outcomes to be analysed. The entire survey and the web documentary experience is going to take approximately 15-20 minutes.



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# Survey Questions

They then were met with these questions:

- What elements do you recall seeing? You can answer in bullet points.
- Did you see these elements? You can click as many as you believe you have seen.
  - 360-degree camper view
  - Video of Kjell and Kristine sailing
  - 3D model of the mountain Victoria lives by
  - POV of walking through nature
  - Video sequences about minimalism
  - 360-degree boat view
  - Task/Challenge
  - a picture of Victoria's closet
  - highlighted quotes
  - I cannot remember
- Which of the following content pieces did you feel most drawn to? (click up to 3)
  - 360-degree camper view
  - 360-degree boat view
  - highlighted quotes
  - Task/Challenge
  - Video sequence about minimalism
  - Other:
- Which of the following content pieces did you feel were a bit out of line with the whole web doc?
- What do you think was the purpose of this web documentary? You can answer either in bullet points or in a short text.
- On a scale from 1-5 (1 - poor, 5- excellent), how well did the 360-degree picture of the camper van immerse you in the experience?
- What would have helped you? (If you do not have any suggestions, feel free to leave this field unanswered)
- How easy did you find the navigation during the web doc on a scale from 1 to 5 (1 - counter-intuitive, 5 -intuitive)?
- If there were any situations, where did you feel stuck or a bit lost on how to proceed/use the web doc? (If you did not feel stuck or confused feel free to leave this field unanswered)
- Do you have any other comments on this web documentary, what you liked, what you didn't?

# 03 Main findings

Through the survey and the eye tracking experiment combined, we were able to deduce a couple of findings of which we are going to present the main ones in the following.

## Usability

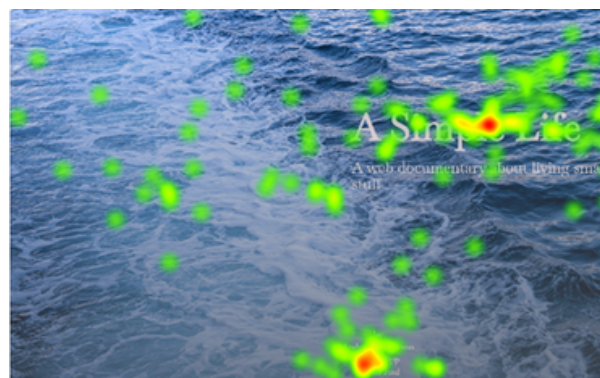
The first indication of a conflict is found on the starting page of the Web Documentary. Participant 3 noted that it was not as intuitive to figure out whether the start was a video or a scrollable website. The criticism was: "It was hard to figure out that it was a scrolly telling and not a video in the beginning". The gaze plot of this participant shows more focus points than the other participants, which leads to the assumption that a way of continuation was looked for.



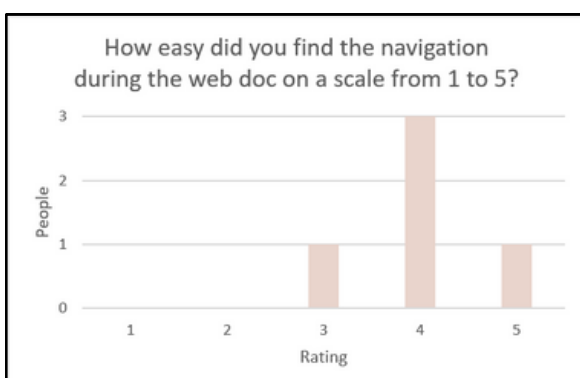
Participant 4 did not spend as much time on the starting page but rather scrolled much faster, maybe because it was more intuitive for them to navigate a scrolly telling. They only showed 9 focus points and less jumping around.



The starting page attracted a lot of visual attention especially on the title, less on the subtitle and then again, a lot on the credentials.



The usability overall was rated well by the participants averaging to a 4 out of 5.



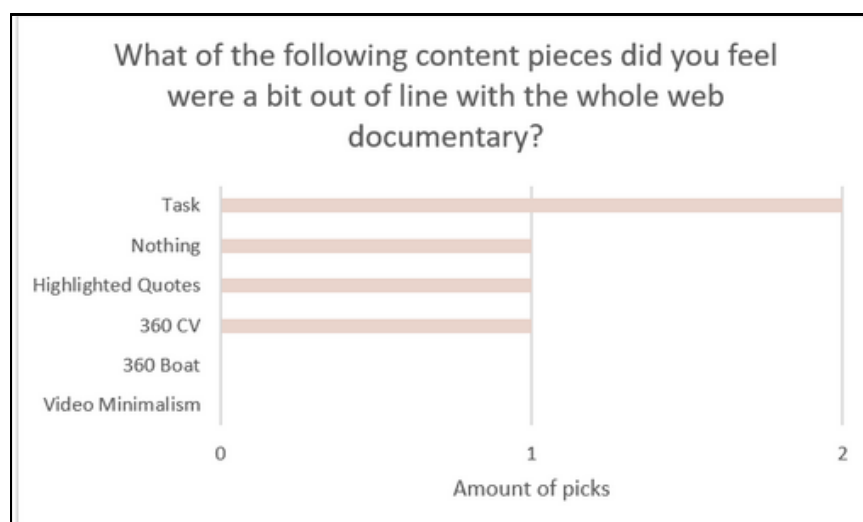
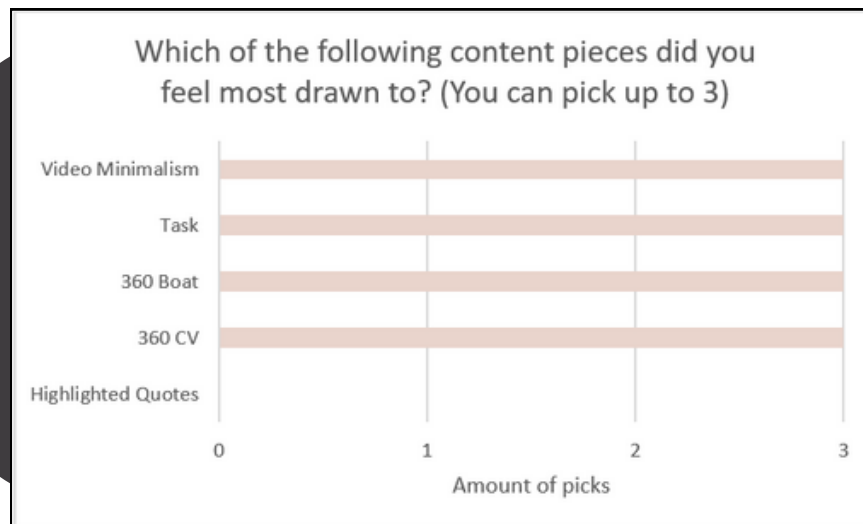


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## Pedagogical Functionalities

In the survey, the participant's attention was spread widely and evenly, but one content piece did not communicate well enough to be one of the participant's favourite ways of presenting content. To the question of what felt most out of line, the participants answered that the task (333 - a minimalism task, how to change your life) felt out of line most and then the highlighted quotes and the 360-degree footage of the camper van.

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## Visual Attention

The heat map of all participants suggests that faces are a crucial part and they draw the attention of the user the most. This is especially visible in the following section of the website. The text is still valued and especially the beginning is focused on a lot.



Participant 4 did not focus on the text too much but rather jumped over to the faces as seen on the gaze plot. This may suggest that the distraction of the faces was more attracting than the text. We see a similar importance of the faces in other instances also, like the frame with the large camper van.

Minimalism as a lifestyle means a conscious renunciation to make room for the essentials. We talked with Victoria, Kjell Arne and Kristine who find themselves in different stages in life, but share a common interest in the simple way of living. Along with their stories they also share tricks on how to live a more minimal life.





Front page of "A Simple Life" © Lina Martens

## 04 Suggested improvements

Overall, the feedback on "A Simple Life" was positive. There is very few things to be improved on, of which the main findings suggest:

- The starting interface should have an indication on how to proceed with the web documentary. A possibility could be an indication of "scroll to proceed" at the bottom of the first screen.
- The 360 degree footage should not cover the entire width of the page to accommodate for easier scrolling through the web documentary.
- Make the highlighted quotes more outstanding by not placing attention seeking content on the same page, such as faces of people that attract a lot of attention.

# 05 Conclusion

The eye-tracking experiment has suggested a few ways in which we can work on our ideas and how we can avoid different mistakes the presented web documentary has made. The main takeaways while designing our product are:

- Navigation of the website is a crucial part of the user's journey and is one of the breaking points in keeping the user's attention. In the change of interfaces, it should be made clear how to proceed. This includes the use of immersive content pieces. The user should always be clear, that there are interactive parts to be explored, so they don't miss anything.
- Centering the story to be told around people and telling them through pictures including faces works well.
- Visual highlights can be achieved through colour blocking and attracting the attention of the user. The content in those colour blocks should be in line with the rest of the website and feel organic for the user (unlike the task in "A Simple Life")



Calibrating the glasses © Lina Martens