



TikTok-Brain

Lo-fi Prototyping and Usability Testing

Mission Statement

To promote stair safety by leveraging the captivating power of video, delivering crucial safety messages in an engaging and distraction-free platform.

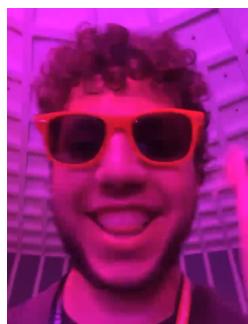
Value Proposition

Delivering mesmerizing, randomized videos paired with essential safety advisories, TikTok-Brain simplifies social media to focus solely on enhancing personal safety without the clutter of likes, comments, or shares.

Problem / Solution Overview

Many individuals are unaware of the risks associated with inattentive stair use. Traditional safety messages often fail to engage audiences, leading to continued accidents and injuries. TikTok-Brain combines the engaging nature of short-form video content with critical safety messaging. By removing typical social media distractions, the app ensures that users receive and retain important information about walking safely on stairs.

Our Team



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1 Introduction

Distracted walking has become a significant safety concern, particularly on stairs where attention is crucial. Traditional social media platforms, designed for high engagement, inadvertently increase these risks by encouraging users to focus more on their screens than their surroundings.

TikTok-Brain is designed to counteract this issue by combining the engaging nature of video content with crucial safety messages about walking safely on stairs. This app simplifies the social media model: it removes likes, comments, and shares, focusing solely on delivering safety-oriented content through mesmerizing, randomized videos paired with safety advisories.

2 Methodology

The process began with an individual brainstorming phase, where each team member independently generated ideas. These ideas were then collectively refined using digital tools such as LaTeX, Gimp, and Krita, resulting in a diverse array of 25 to 30 potential concepts.

To ensure our ideas were aligned with user needs and expectations, we proceeded to create and conduct a detailed interview comprising 20 questions, which was administered to 30 participants using Telekom Vote 2 and WhatsApp to reach out to the participants. The insights gathered during these interviews were crucial. They helped constructing personas and refine our initial ideas.

With a solid understanding of our user base, we evaluated the brainstormed ideas through a structured pro-contra analysis, taking into account the feedback and personas developed earlier. This phase of assessment was supported by Google Docs and LaTeX, allowing us to narrow down our options to three final ideas.

Subsequently, we moved to visually conceptualize these ideas through sketches and storyboards, utilizing Gimp, other graphic tools, and Kdenlive. This step was vital in visualizing the sequence and flow of interactions, which were crucial for the later stages of prototyping.

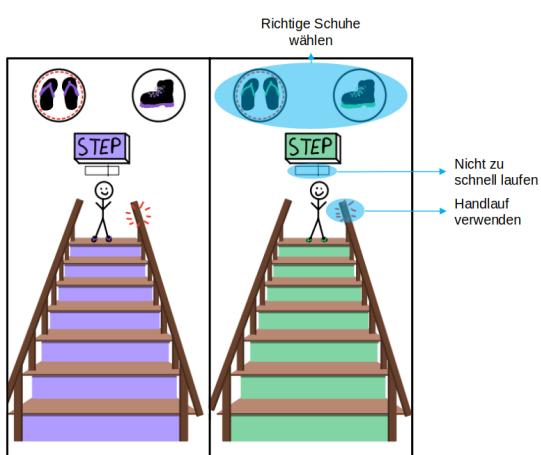
This iterative process of development and refinement led to the selection of the most promising prototype based on its functionality and user feedback.

The final stage of our project involved the creation of professional presentations and a comprehensive final report, crafted using PowerPoint and LaTeX. These documents provided a detailed overview of the project process, from the initial concept to the final evaluation of the prototype. This ensured that every aspect of the project was clearly documented.

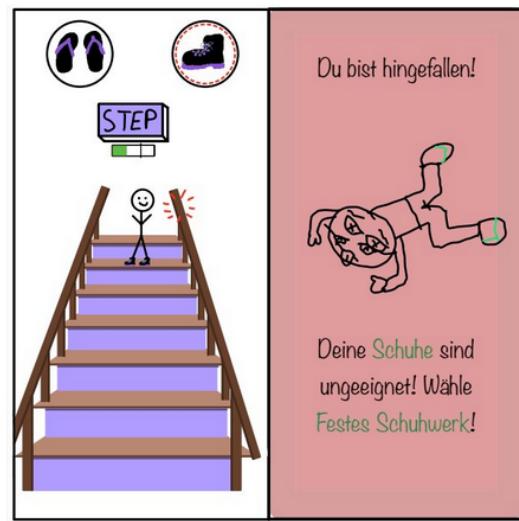
3 Results

3.1 Concept Sketches

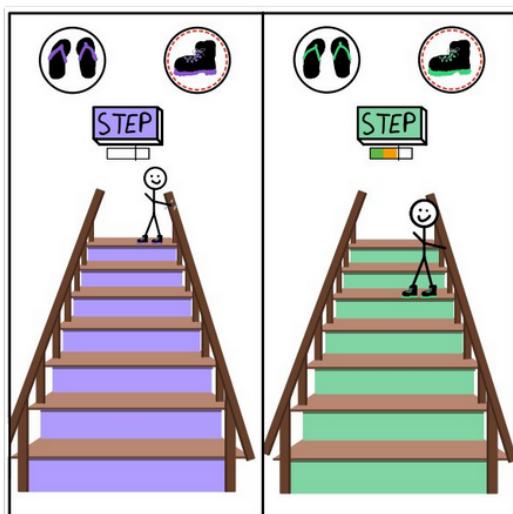
All our sketches and results here



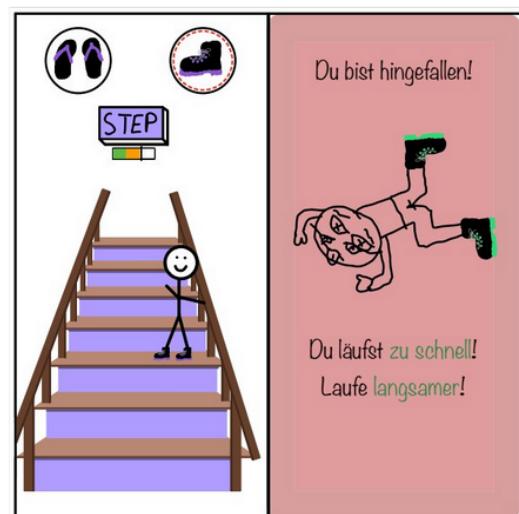
(a) 1



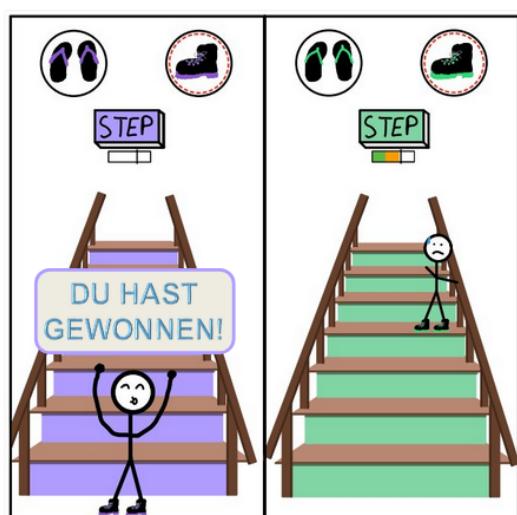
(b) 2



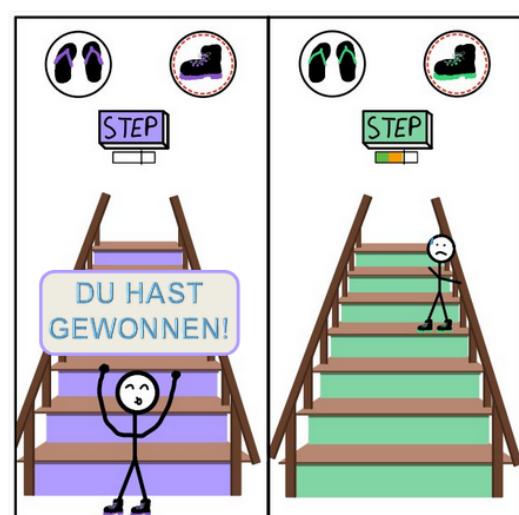
(c) 3



(d) 4



(e) 5



(f) 6

Figure 1: Stair Master Game



(a) 1



(b) 2

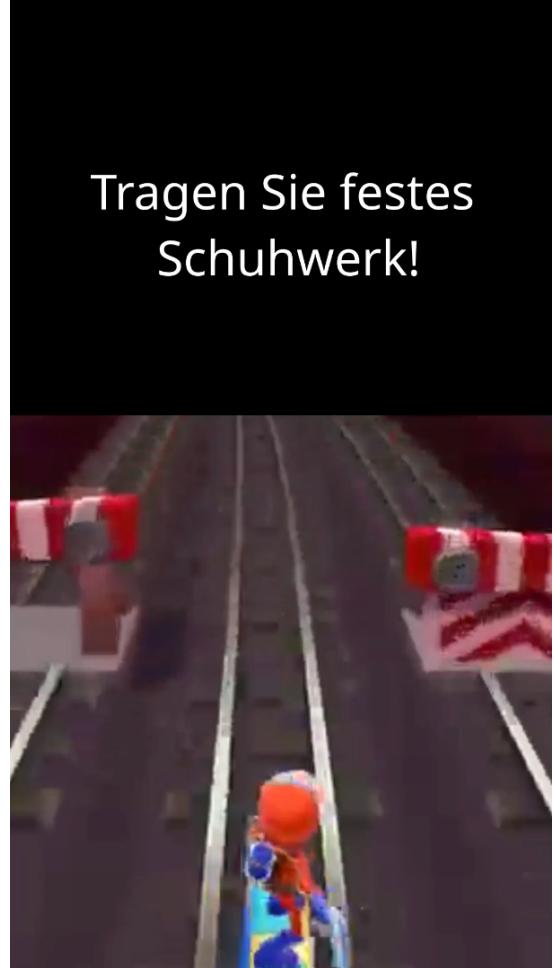


(c) 3

Figure 2: Stair AI Image Generation



(a) 1



(b) 2

Figure 3: Stair TikTok-Brain

3.2 Selected Interface Designs

Stair Master Game

Pros	Cons
<ul style="list-style-type: none">• The majority enjoys playing minigames• Social Gaming Interest• Gaming Engagement	<ul style="list-style-type: none">• Lower Engagement with Short-form Video

Table 1: Pro + Con analysis for rewards interface

Stair AI Image Generator

Pros	Cons
<ul style="list-style-type: none"> • Humor Preference 	<ul style="list-style-type: none"> • Potential Insensitivity

Table 2: Pro + Con analysis for rewards interface

Stair TikTok-Brain

Pros	Cons
<ul style="list-style-type: none"> • High Engagement with Memes and Humor • Everyone spends time on short-form streamer daily • Clear Warning Placement 	<ul style="list-style-type: none"> • Lower Engagement with Short-form Video

Table 3: Pro + Con analysis for rewards interface

3.3 Prototyping

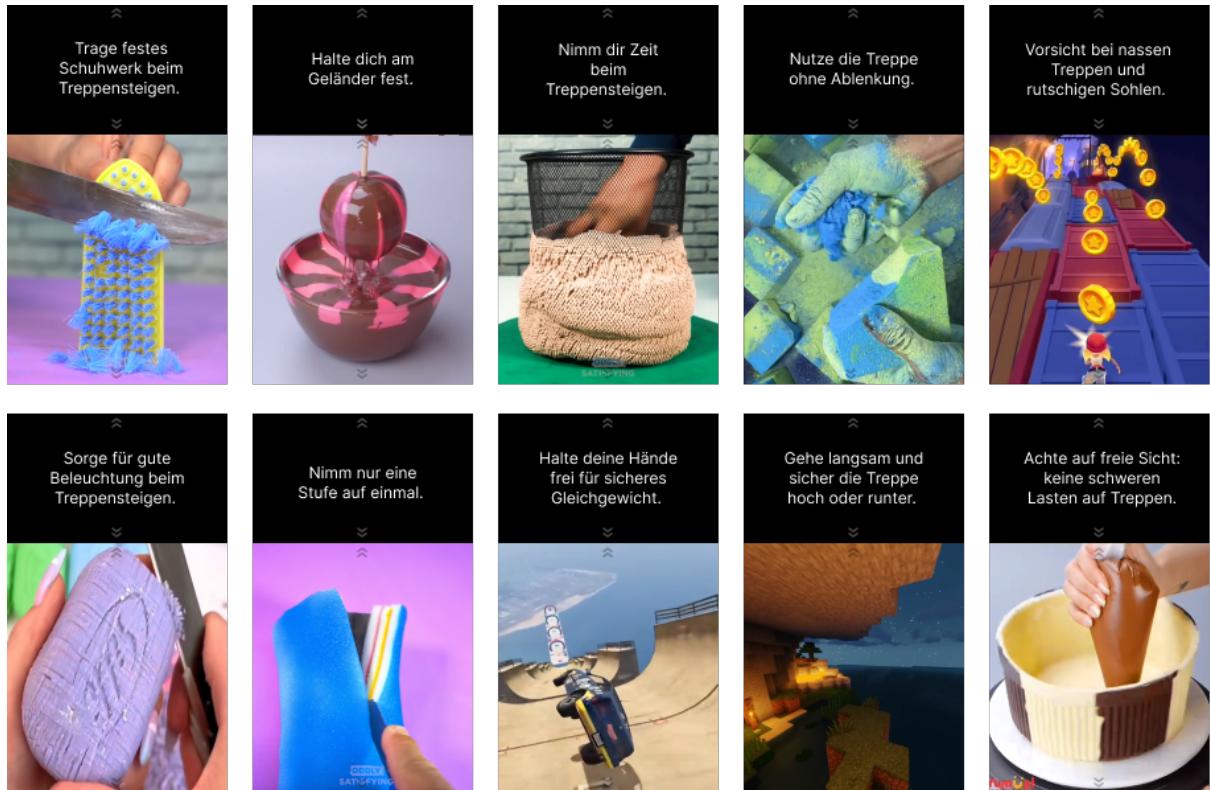


Figure 4: Lo-fi Prototype of TikTok-Brain Platform Interactions



Figure 5: Lo-fi Prototype of TikTok-Brain Platform Example Views

Component	Description	Functionality
Video Display Area	Fullscreen area to show videos.	Displays a single video at a time, taking up the bottom part of the screen.
Swipe Navigation	Gesture-based navigation for moving through videos.	Swiping up loads the next video; swiping down loads the previous video, if available.
Random Video Loader	Logic that fetches a random video to display.	Randomly selects and loads a video from the video pool whenever a new video is required (e.g., after reaching the end of history).
Text Overlay Area	Area at the top of the screen for text that accompanies each video.	Displays a random line of text (e.g., a phrase or quote) that's paired with the video.
Reload Mechanism	Mechanism to refresh the video feed if there are no previous videos in history.	Reloads the video feed to pull a new batch of random videos when the user reaches the top of the stack.
Video-Text Randomizer	Logic that pairs random videos with random text.	Ensures that each video is matched with a different text overlay each time it appears, maintaining freshness.
Interface Background	Background color or visual design behind the video display.	Provides visual consistency or mood but stays unobtrusive to keep focus on video and text content.
Loading Indicator	Small icon or animation that shows when new content is being loaded.	Briefly appears when the app fetches a new random video or reloads the feed.
No Interaction Buttons	No buttons for like, comment, or share, emphasizing simplicity.	Only swipe gestures are recognized; no additional UI elements for social interactions.
Error Handling Display	Fallback message or visual when loading fails.	Displays an error message if a video fails to load, with a prompt to swipe to reload.
Auto Swipe Animation	Animation that mimics a swipe if there's no interaction for a while.	After a set period of inactivity, automatically performs a swipe animation to move to the next video, keeping the experience engaging.

Table 4: Functionality of Design Interface Components

Metric	Prototype	Feedback Score
Usability	4.5	Positive
Sustainability Awareness	4.2	Neutral
Engagement	4.8	Very Positive

Table 5: Usability Testing Results

4 Discussion

Analyze the results here, discussing what the results imply about the effectiveness of your platform. Discuss any limitations or challenges encountered.

5 Conclusion

Summarize the key findings and discuss the impact of your work. Outline potential future work or improvements for the platform.

6 References

A AI Appendix

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