

# **PROJECT REPORT**

## ***EFTELING AI STORYTELLING***

*Partnership with Livewall*  
*Eindhoven*

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## Context (copied from project plan)

Mach8 is a company that focuses on the application of Gen-AI to create scalable, personalised, and simplified digital contents. This company is part of Livewall, a digital agency that specialises in the development of apps, games, and digital contents. In Livewall, Mach8 mainly specialises in product development that requires Gen-AI. The given assignment revolves around Gen-AI, specifically the application of Gen-AI in online storytelling. The task was to make a digital product that generates stories with AI based on user input, with a theme that revolves around the Dutch theme park: Efteling.

## Goal of the Project (copied from project plan)

The goal of this project is to develop a Gen-AI implementing application to create an engaging and interactive storytelling experience for children of ages 6 to 10 years old. Taking into account the fact of the decreasing literacy level of children, aged 15 and under, in the Netherlands, this product will also be developed as a tool that will bring back the children's desire for reading. At the same time, this product could also contribute to a positive marketing for Efteling, and the specific Sprookjesbos area in the park.

## The Assignment (copied from project plan)

### ***Assigned Question:***

*"How can we create engaging and personalised stories using AI technology?"*

The assignment is designed for the Efteling theme park in The Netherlands and more specifically for the Sprookjesbos (The fairytale forest) area. The goal is to leverage the AI technology in order to create not only personalised but also educational and fostering imagination stories.

### **Client requirements:**

1. *Usage of GenAI for text, image, video and audio generation*
2. *Interactive storytelling:*
  - the user must be able to change the narrative of the story
3. *Metrics of success:*
  - Measuring engagement of the final deliverable by examining completion and abandonment rates, sessions per user recorded

## Process and Result (Ellyshia)

### **A. Introduction**

This project ran for roughly 2 months from 7th of October to the 9th of December 2024. For the project, the team decided to follow the double diamond phase, and used the CMD methods pack as reference to the methods used for every phase. The briefing phase and the four phases of the double diamond (discover, define, develop, deliver)

were all implemented within the mentioned time span of the project work, where the briefing phase lasted for a week, and the rest of the double diamond phase, were each implemented as sprints that lasted roughly 1-3 weeks. From the start until the end of the project, all members actively participated in discussions and contributed to the project works.

## **B. Process Elaboration (Ellyshia)**

### **a. Briefing phase (07/10/2024 - 16/10/2024)**

The project was initialized with a briefing phase. In this phase, the kick-off meeting with the client was held, and the overall project planning and collaboration tool (Trello board, Gantt chart, project plan document) were initialized. In this phase, the formulation of the project's research questions were also done.

### **b. Discover phase (17/10/2024 - 29/10/2024)**

This phase is where all the literature and field research that are crucial and relevant to the project were done. In this phase, the team focused purely on just research, understanding the target group and also the field of the project, AI, which is a new topic for everyone in the group. However, the whole research is still weighted the most on the target audience. This phase lasted for roughly 2 weeks, the methods implemented are:

- Target group literature research
- Generative AI literature research
- Target group interviews

### **c. Define phase (30/10/2024 - 06/11/2024)**

Entering this phase, the team had possessed all the needed information regarding the target audience and so it only lasted for roughly 1 week. In this phase, all the information from the Discover phase were summarized and concluded into tools to help the team mold the concept to accurately fit the target group's requirements, as listed below:

- Personas
- Customer Journey Map
- Empathy Map
- User stories

### **d. Develop phase (07/11/2024 - 29/11/2024)**

In this phase, the project's final product, the PWA (progressive web app) development was started. The methods implemented in this phase are:

- Prototyping
- User testing
- Proof of Concept (PWA development)

### **e. Deliver phase (30/11/2024 - 13/12/2024)**

In this phase, the team focused on the following activities in preparation of the concluding stakeholder presentation:

- Product testing
- Code finalization and validation, in preparation for final delivery
- Creation of product advertisement video

### **C. Members Contributions** *(each member write their own)*

#### **a. Discover phase**

##### **i. Claudia**

1. Target group literature research
2. Generative AI literature research (speech and text generation)
3. Interviewed two children from the initial target group (before target group shift)

##### **ii. Ellyshia**

1. Target group literature research
2. Generative AI literature research (image and video generation)
3. Interviewed two children from the initial target group (before target group shift)

##### **iii. Jasmin**

##### **iv. Magda**

1. Generative AI literature research (image and video generation)
2. Secondary moderator of a interview with the target group (before target group shift)
3. Research on existing applications targeting kids and implementing storytelling features

##### **v. Nikoleta**

##### **vi. Sumaya**

1. Interview target group basisschoolkinderen groep 1 t/m groep 7 (4 jaar t/m 9 jaar)
2. Second interview finally target group 4 year until 6 years

#### **b. Define phase**

##### **i. Claudia**

1. Contributed to creating empathy map
2. Created Customer journey

**ii. Ellyshia**

1. Created two personas (male and female) for children from group 2 of the target audience (5 year-olds)
2. Contributed to creating empathy map
3. Wrote user stories

**iii. Jasmin**

**iv. Magda**

1. Contributed to creating empathy map
2. Contributed to writing user stories
3. Problem statement formulation

**v. Nikoleta**

**vi.**

**vii. Sumaya**

1. 2 persona group 1
2. Target analyse first interview
3. Target analyse seconde interview
4. Contributions made to empathy map
5. Questionnaire created for a clear overview

**c. Develop phase**

**i. Claudia**

1. Contributed to creating a high-fidelity prototype
2. Worked on speech and text generation backend
3. Connected backend with frontend

**ii. Ellyshia**

1. Contributed to creating a responsive high-fidelity interactive prototype
2. Worked on image, text, and speech generation backend
3. Responsible for integrating the backend and frontend, mainly worked on the client-side and server-side Javascript
4. Maintained Git branch merging
5. Developed sequential display of generated elements

**iii. Jasmin**

**iv. Magda**

1. Creation of a high-fidelity testing prototype with interactions.
2. Contributions to the general story narrative (image and text generation specifically) and set up basic backend.
3. Contributions to the client-side JavaScript and responsible for fixing duplicated voiceover bugs and lazy loading

**v. Nikoleta**

**vi. Sumaya**

1. Contributed to creating a responsive high-fidelity interactive prototype
2. Usertesting the prototypes with target audience
3. Worked on the front part of the develop part
4. Responsible for the first page intro and genre part and also good personages
5. Responsible for the data information sow the ai will reconsigned de information

**d. Deliver phase**

**i. Claudia**

1. Completed “Threads” and “Risks and mitigations” sections in the advice report

**ii. Ellyshia**

1. Finalized code structure and content
2. Created advertisement video for presentation

**iii. Jasmin**

**iv. Magda**

1. Research on WCAG and GDPR for the advice report

**v. Nikoleta**

**vi. Sumaya**

1. *Visuale for the presentation*
2. *User testing*

## **Conclusions and Recommendations (after presentation)**

### **Evaluation/Reflection (after presentation)**

(each member writes their own evaluation/reflection)

#### **A. Claudia**

This project has been an invaluable learning experience, offering significant personal and professional growth. Working in a team environment has greatly enhanced my communication, coordination, and task management skills, while also teaching me the importance of flexibility and constructive feedback. The technical aspects of the project, particularly working with AI and back-end technologies, have deepened my understanding and practical skills in these areas. Collaborating with a real client, Efteling, provided unique insights into product development processes, including interpreting client requirements, managing expectations, and the value of direct user feedback. The project presented various challenges that improved my time management, prioritization, and problem-solving abilities. Adapting to changing requirements underscored the importance of agility in software development. Overall, this experience has given me a comprehensive view of the software industry, equipping me with practical skills and knowledge that will undoubtedly be applicable in future projects and contribute significantly to my IT career development.

#### **B. Ellyshia**

As this project concluded, I would say that I learned the most about teamwork and experiencing working with individuals of different working ethics. This also contributes to my professional skills, as I recognize that communication is one of my weaknesses, however throughout the project, I learned to make an effort to communicate clearly to my teammates what I expected on their part of the group work. Additionally, I also learned to respect and understand my teammates' way of working that is different from mine. Aside from the differences of the individuals in the team, I feel that throughout the project, everyone in the team is willing to cooperate, therefore making the communication and teamwork easier to

organize. However, what I think can be improved from the team is for every member to have the same initiative of fully involving themselves in every step and discussion of the project making sure all members are on the same page to minimize the amount of miscommunication and the delay caused by it. From a technical aspect, I also learned a lot, especially on the development part, which is something completely new for me to work with AI and backend API routing. However, I am very grateful that I got this opportunity to help me grow in my front-end development skills, helping me move one more step forward in achieving my goal as a competent frontend developer. To reflect on my technical works, I think that I could have helped more in fixing the bugs if I started with the hands-on AI research earlier. So to say, for the next projects that I would have the opportunity to work on, I will think even more ahead and try to have an even more accurate judgement between the time constraints and the available human resources. To conclude, although we weren't able to deliver a perfectly working product without bugs, I would still say that the project itself is successful as the whole team are proud and satisfied with what we managed to deliver.

**C. Jasmin**

**D. Magda**

During this first actual project that involved an external stakeholder, I could say that I learned a lot - from technical skills to professional practices in a team. What I am proudest of, is that I got the chance to work with the backend services and Gen-AI which was completely new to me. I might not have presented the perfect solution but I got the chance to try and experience how server-side code works. Through the project I also felt much more comfortable with using Git, setting up branches and essentially using my own for the features that I worked on. On the other hand, I got to experience working with a completely new group that I have never worked with before. Because of this transition, I got to understand that sometimes, group work can be messy. Everyone is used to their own ways of work according to their lifestyle and everyone has their own way to communicate which sometimes can lead to misunderstandings. Eventually, as with many changes we experience in reality, the key to success was time and desire to achieve, which at the end led us to a product that we are all proud of.

**E. Nikoleta**

**F. Sumaya**



## **Appendices**

(put here any visual attachments that are linked to Process and Result chapter)