



TRASH



NOTES



EMAIL

EFFICIENCY:



UFCFQ5-30-3 - Interaction design - Society and Technology



Hall Law Cination: A 2D short web game

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START



WEB



AI BOT

LOGO

EMAIL

WEB

NOTES

AI BOT



11:35 AM



LINKS

- 1- [Hi-Fi Prototype Link \(Figma\)](#)
- 2- [Hi-Fi Prototype \(Preview link\) **](#)
- 3- [Technical Prototype Link \(Live\)](#)
- 4- [Technical Prototype repository \(GitHub\)](#)
- 5- [Video Link](#)
- 6- [Full walkthrough video](#)



** Make sure you play the Figma Prototype on full screen on a 16:9 screen :)



INTRODUCTION

This report covers the research and prototype stages in creating a 2D web game named "Hall Law Cination". This game explores the phenomenon of AI overreliance and AI hallucination that some people are not aware of its nature and risks. A Hi-Fi prototype was made in Figma to illustrate the interaction and the game flow, followed by a technical one made using HTML, JS and a trainable AI assistant builder (Botpress).

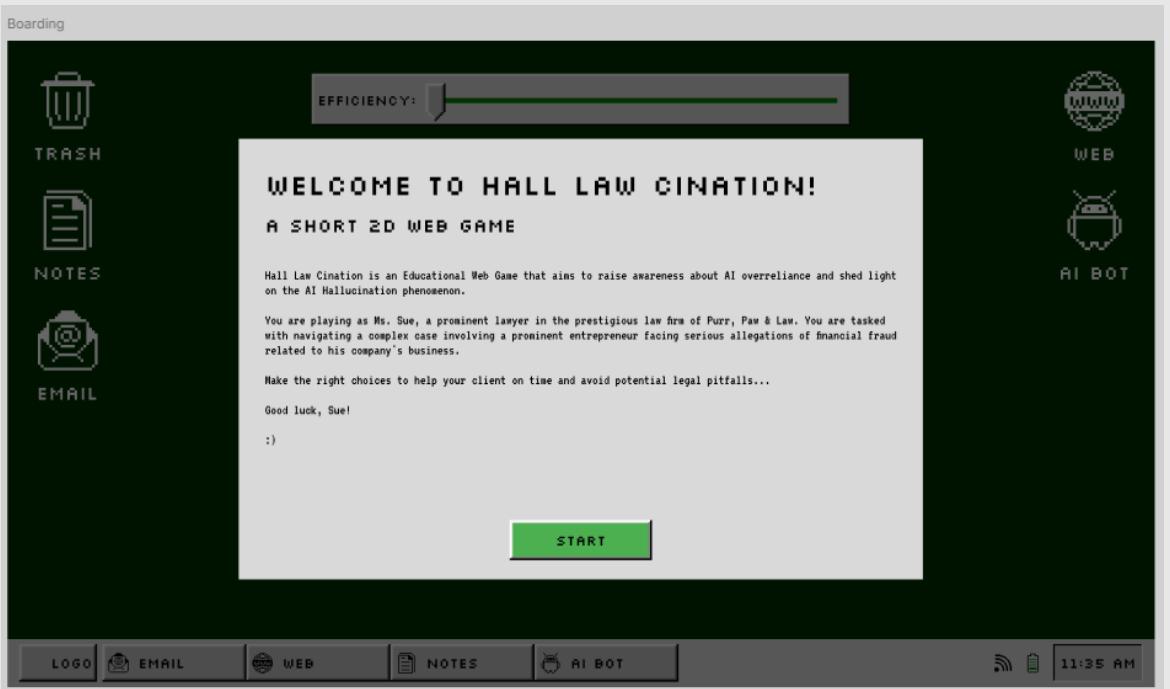
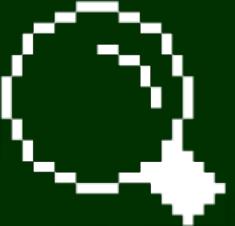
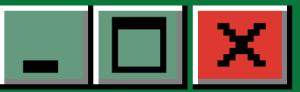


Figure 1 - A screenshot of the game landing page



Research





AI overreliance, being one of the top ethical concerns in workplace (Wilson, 2023), is the conundrum of accepting AI recommendations even if they are incorrect (Miller, 2023). This occurs due to user's limited understanding of how AI system works (Passi and Vorvoreanu, 2022), and unawareness of an important phenomenon that occurs often: AI hallucination. This happens when an AI system attempts to answer a prompt that doesn't exist in the training data or that wasn't well understood and "hallucinates" an incorrect response (IBM, 2023). There are many dangerous side effects to this overreliance that could cause cognitive atrophy, related to memory efficiency, critical thinking, problem solving, decision making, and loss of skepticism and explorative learning needs (Dillu, 2023). These problems could extend and have severe consequences in the workplace. By reducing human oversight, the risk of introducing biases, losing transparency, dissatisfaction of employees and customers and legal risks increase (Rylander, 2023).

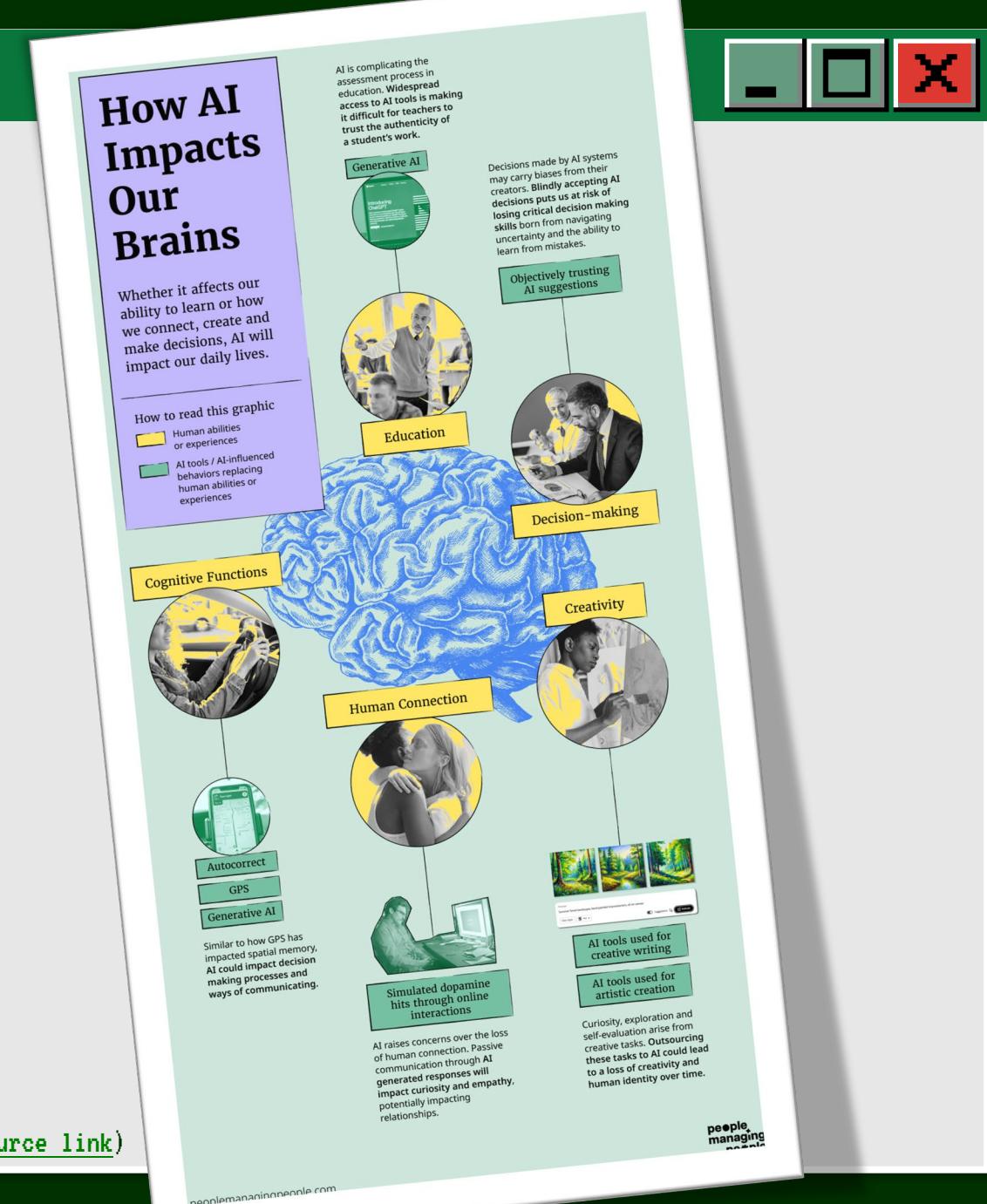


Figure 2 – Infographic: AI influence on basic human abilities ([source link](#))

One example is the fake legal cases stories generated by AI that were submitted by unaware lawyers, like what happened with Michael Cohen, Trump's former lawyer, when he used fabricated cases generated by Google Bard (Legg and McNamara, 2024). This story inspired the creation of this game.



Figure 3 - Ex-Trump fixer Michael Cohen says AI created fake cases in court filing



Hi-fi Prototype



Hi-fi Prototype

I wanted to educate about this phenomenon through gamified eLearning because it enhances the learning process and creates an engaging experience that captivates users' interest to continue (Brown, 2023). Amid researching about AI related games, I came across a web game called *Survival of the Best Fit*. This short game, which takes about 6 minutes to finish, is an educational clicking game about AI hiring bias. It is a straightforward and quick simulation that effectively teaches a serious modern problem in a fun and memorable way, inspiring me to create something similar. This game exemplifies scenario-based gamified learning by asking users to make decisions and form their own hypotheses, then providing feedback to convey its message. This approach helps learners engage deeply and enjoy the learning process (Smith, 2020).

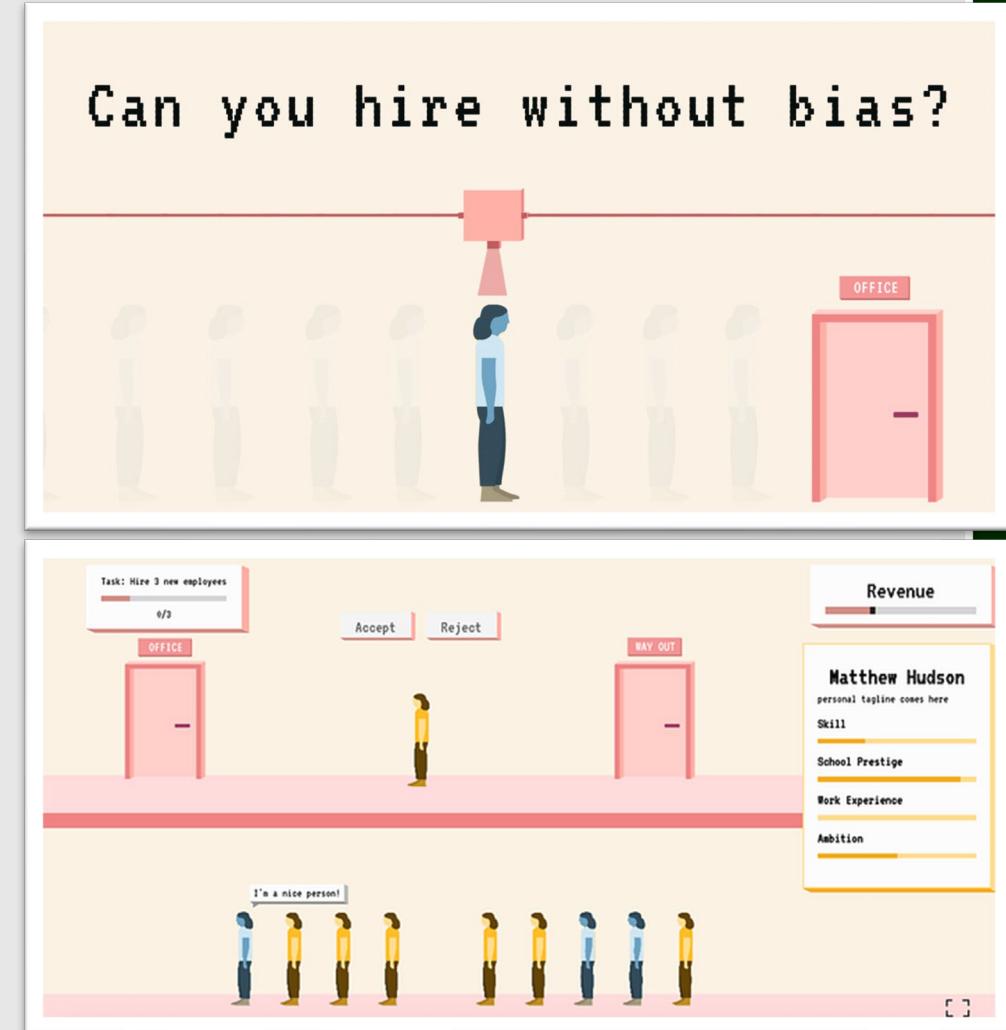


Figure 4 - Screenshots from Survival of the Best Fit game

Hi-fi Prototype

I started brainstorming the script and the design, which I wanted to be kept visually simple to focus on the content and reduce distractions.
I collected some inspiration from my own portfolio and Pinterest (see figure 5).

Figure 5- Pinterest Mood Board



Then created the user flow diagram in draw.io ([LINK](#)) using inspiration from news stories and with the help of ChatGPT to enhance scenarios with additional details (see figure 6).

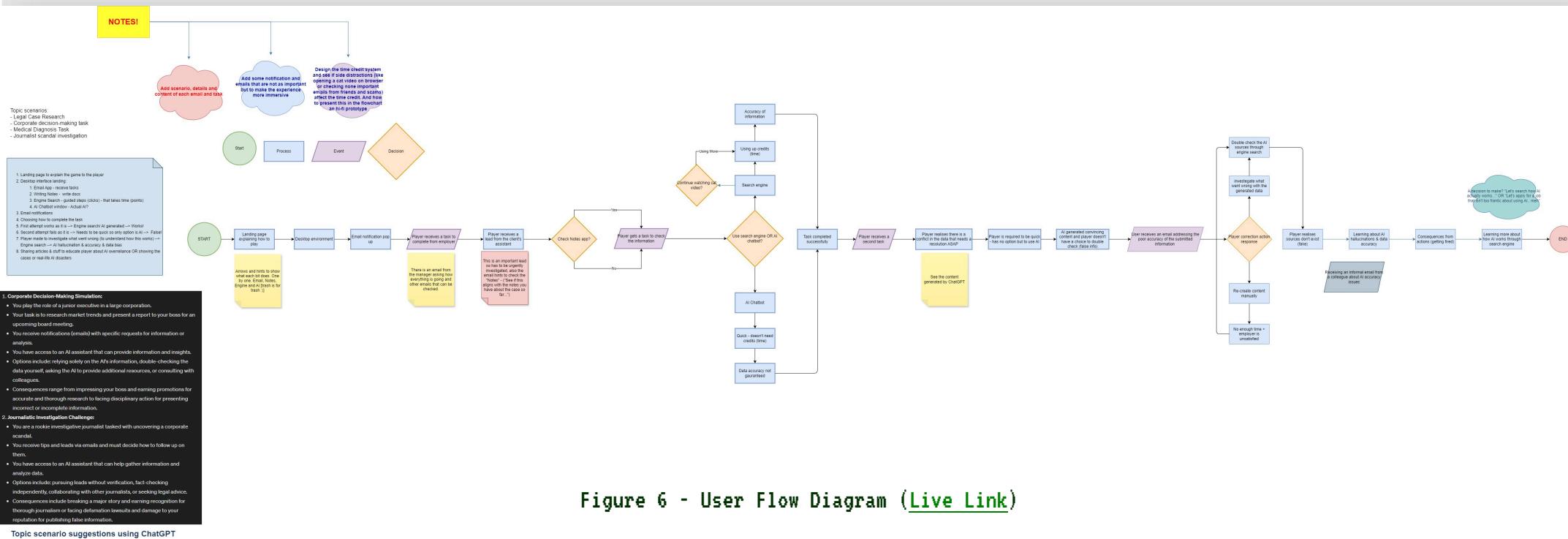
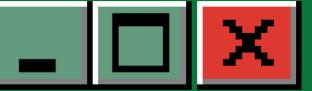


Figure 6 - User Flow Diagram ([Live Link](#))



Then started creating and gathering elements to create a hi-fi prototype in FIGMA and creating templates to speed up creating the screen for each event (see figure 7).

The screenshot displays several Figma windows illustrating the creation of a hi-fi prototype. On the left, there are multiple windows representing different application screens:

- EMAIL:** A list of contacts including "Navrosh Mittens" (Title Email), "Fox Feline" (Title Email), "Manager Mr. Beard" (Title Email), "Anonymous" (Lead), and "Fox Feline" (Title Email).
- AI BOT:** A conversation with "AI THE SMART BOT :)" asking about finding critical information, with responses like "I need to find a critical information" and "Brilliant! I need more on this...".
- WEB BROWSER:** Two instances of "GLOGGLE" showing search results for "Result one title here".
- WEB BROWSER:** An article titled "ARTICLE NAME" by "Author | Date". The text is placeholder text: "Lorem Ipsum is simply dummy text of the printing and typesetting industry. Lorem Ipsum has been the industry's standard dummy text ever since the 1500s, when an unknown printer took a galley of type and scrambled it to make a type specimen book. It has survived not only five centuries, but also the leap into electronic typesetting, remaining essentially unchanged. It was popularised in the 1960s with the release of Letraset sheets containing Lorem Ipsum passages, and more recently with desktop publishing software like Aldus PageMaker including versions of Lorem Ipsum."
- SYSTEM:** Three windows titled "TITLE OF THING", "NEW EMAIL!", and "NEW EMAIL!". The first window contains buttons "OF COURSE!" and "MAYBE LATER". The second window says "You received a new email. It looks urgent, would you like to check it now?" with buttons "YES" and "LATER". The third window says "But it looks very urgent..." with button "OKAY".
- NOTES:** A window titled "CLIENT NAME" with a note about "Lorem Ipsum".

On the right side of the interface, there are several panels and toolbars:

- HEADING TEXT SUBHEADING:** Paragraph font size details.
- Chat bubble icon:** Chat bubble icon from icons.
- TRASH NOTES EMAIL WEB AI BOT:** Icons for trash, notes, email, web, and AI bot.
- BUTTON:** A group of four green rectangular buttons.
- BUTTON:** A group of four grey rectangular buttons.
- BUTTON:** A group of four green rectangular buttons.
- EMAIL:** A group of three grey rectangular buttons labeled "EMAIL".
- DISPLAY PROPERTIES:** A panel showing "Button" selected.
- NAVBAR:** A simulated Windows-style taskbar with icons for Start, Printer, File, Explorer, Monitor, Setting, and a clock showing 5:22 PM.

Figure 7 - Figma created elements

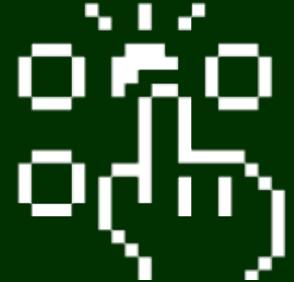
Hi-fi Prototype



Then, following the created flow diagram, the screens and full flow highlighting the main interaction options was created in Figma LINK (see figure 8).



Figure 8 - Figma Hi-Fi Prototype ([LINK](#))



Technical Prototype



After finishing Figma Hi-Fi prototype, I started coding the technical prototype focusing on the game mechanics covered in the first few events of the game. I used HTML, and CSS for basic visual representation, and used JavaScript for the interaction. I then trained an AI chat bot from BotPress to respond in certain ways to enhance game interaction (see figure 11).

Ideally, in the finished game, the AI will be trained to larger data set to allow the player more freedom giving a realistic simulation. A better alternative to BotPress, which isn't free and has limitations, is using a trainable language understanding model to create a custom bot, like using RASA open-source tool (Rasa, 2022).

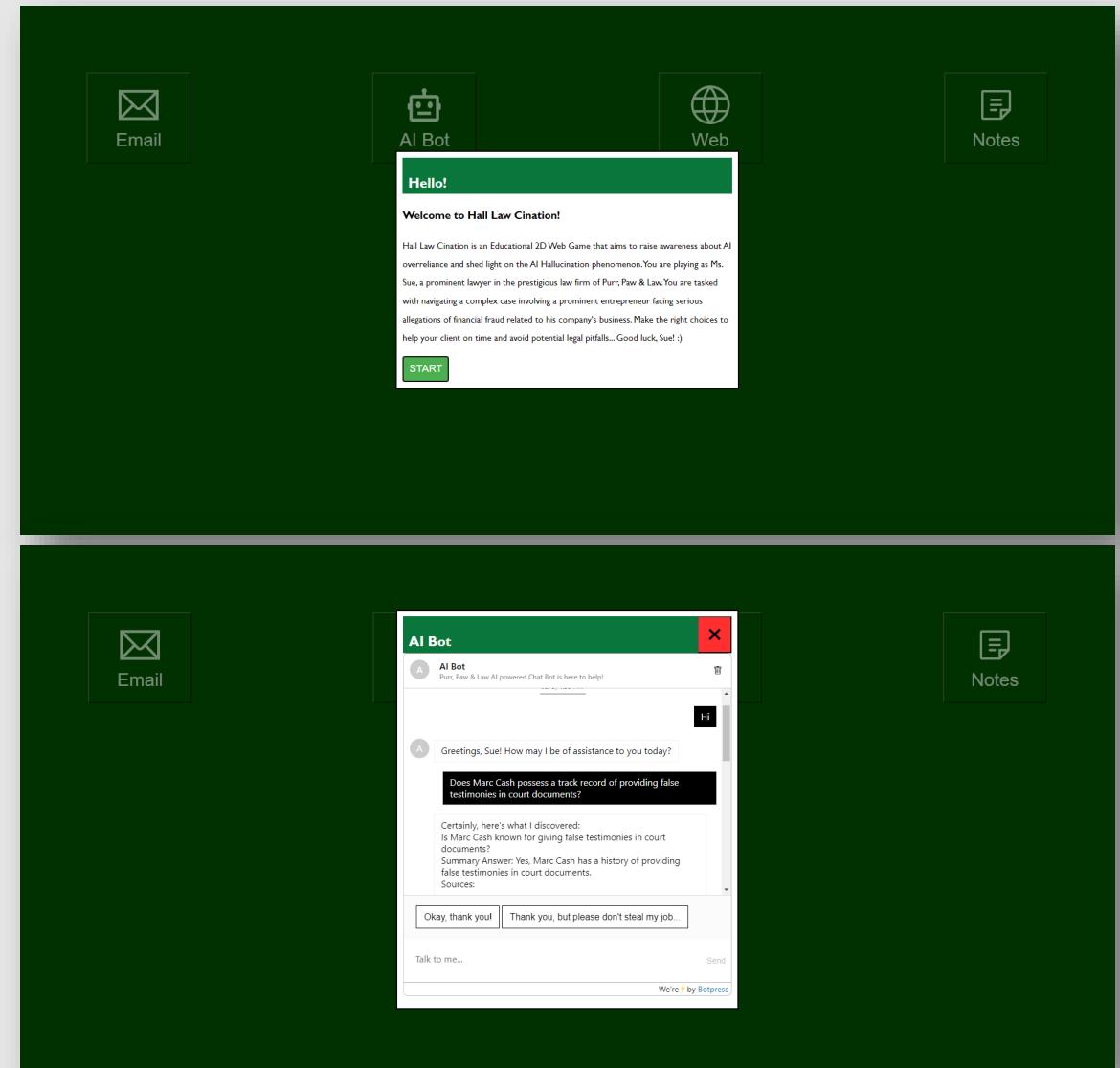


Figure 9 – Screenshots from the technical prototype

Technical Prototype

The web page game demo, which is hosted in my GitHub, starts by a timed pop-up notification that serves as an introduction to start the game, then leads the player to open the modal windows that contains the details and email conversations, just like it is in the Figma prototype. There are clickable icons that reveal other elements of the game, which will update information as the player progresses in the game. The progress can be set using conditions like the ones used for the notification timer, but for this quick demo, it was only implemented in the notifications (JavaScript) (see figure 12).

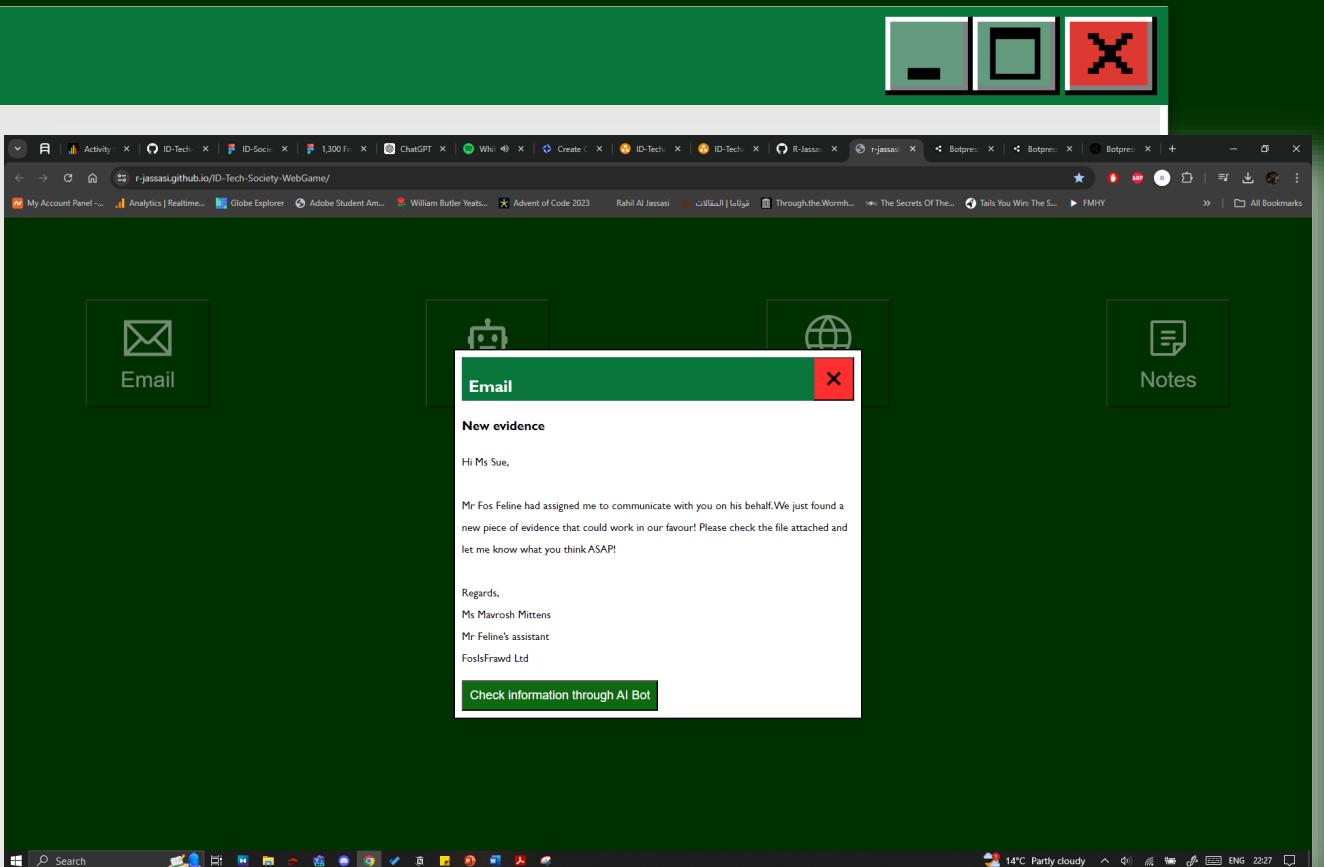


Figure 10 – Screenshot from Tech-Proto

Figure 11 - A screenshot from [BotPress](#) workflow (zoom in for details)

Figure 12 - A screenshot from HTML and JS code ([GitHub LINK](#))



Challenges & Considerations



Challenges & Considerations



AI is a broad topic that branches into hundred others, each with its own challenges. Choosing an area and narrowing it down was a big challenge at the beginning (as can be seen in the brainstorming in figure 13).

There is more to do and research to ensure the players' attention is captured and the message that the game is conveying is clear and beneficial. Furthermore, accessibility in the design and interactions can be improved to be inclusive of individuals with health and mental conditions and impairments, so everyone can enjoy and learn from this simple short game.

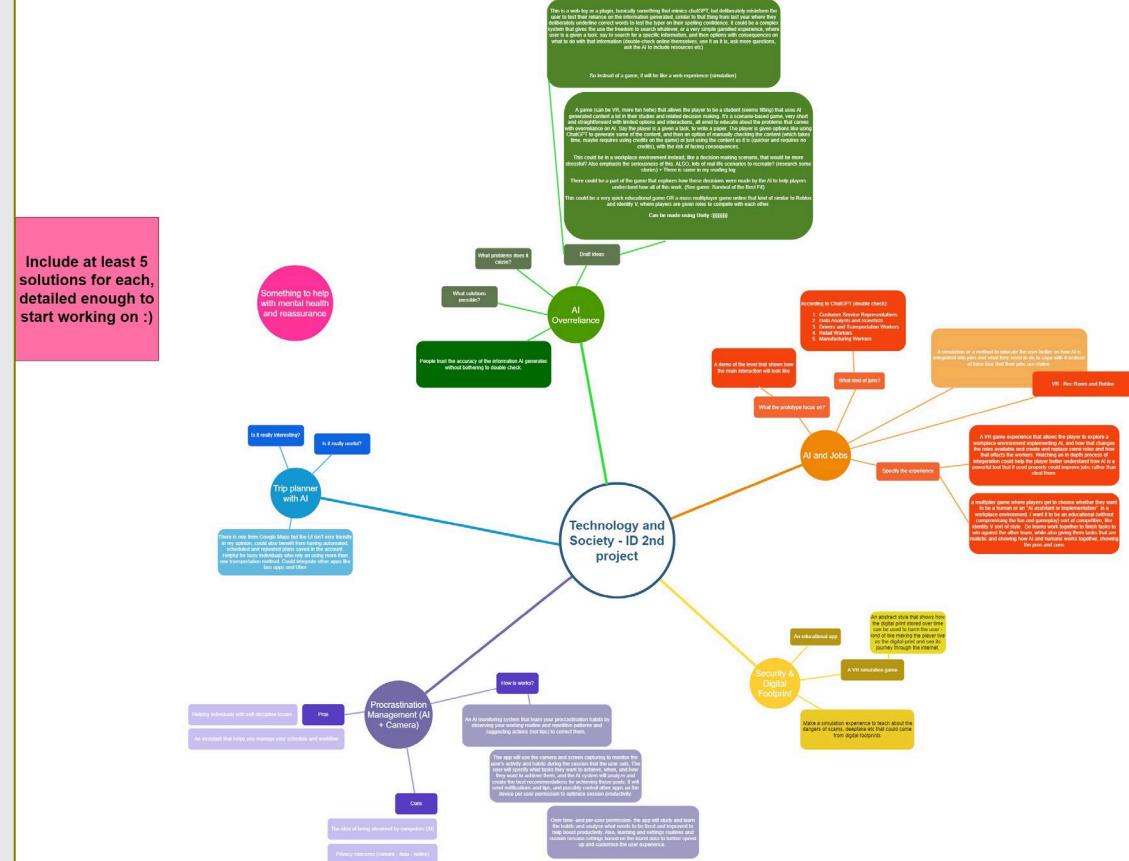


Figure 13 - Brainstorming AI topics [LINK](#)



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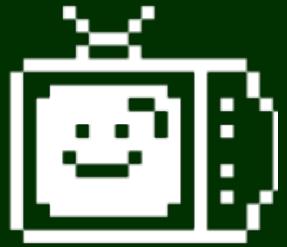
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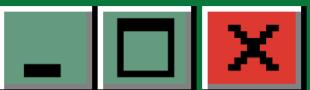


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