**UX Design [15 marks]**

Design Process and Early prototyping and ideation (including mood boards and paper prototyping)

Identification of interacting users and broader stakeholders.

UX approach – design heuristics/approach, design methods (design fiction / heuristics)

Understanding of user group (questionnaires / user stories / interviews)

Wireframes and interaction flow diagrams for final key subsystems.

**DRAFT CONTENT**

**Early Design Process and Ideation**

Our design process was intended to be as agile as possible. To help enable this, we split our development process into stages and tried to gain the insight of possible user and stakeholders at every stage of our process.

At the first stage of our design process, each team member designed one or two different paper prototypes for our website. We intentionally made these designs very diverse in terms of how they implemented the website's concept. The benefits of this approach were

* Not limiting our thinking about the way to approach project too early.
* Giving our early interviewees greater say over the direction of the project.
* Broadening our thinking so that we could trigger productive conversations about good features of all versions and cherry-pick popular features from different designs.

These early designs were split into three broad categories:

* 'Traditional' designs. Designs which mimicked very directly the interface of popular social media and [micro-blogging sites](https://github.com/A-Madeline-Bates/Group-Web-Project/blob/main/Design/prototypes/april/prototype-main.jpg).
* 'Dynamic interface' designs. These designs took a lot of features of popular social media sites and applied them to a more dynamic or novel interface. This set included a design which used [side-swipe navigation](https://github.com/A-Madeline-Bates/Group-Web-Project/blob/main/Design/prototypes/sam/paper_prototype1_home.png), a design which visually represented the [web of connections](https://github.com/A-Madeline-Bates/Group-Web-Project/blob/main/Design/prototypes/ercan/Picture%202.png) between user posts, and a design which placed [posts in bubbles](https://github.com/A-Madeline-Bates/Group-Web-Project/blob/main/Design/prototypes/abby/Picture%204.png) which grew in proportion to the post's popularity.
* 'Infinite' designs. This set included an interface which represented the timeline as a ['Star Wars'-esque scroll](https://github.com/A-Madeline-Bates/Group-Web-Project/blob/main/Design/prototypes/april/IMG_2985.jpg) of text which disappeared into the distance and a design which appeared to ['stack' posts](https://github.com/A-Madeline-Bates/Group-Web-Project/blob/main/Design/prototypes/tony/scroll.jpg) within in a 3D space. These interfaces were intended to visually represent the 'endless' nature of social media content.

Each team member conducted small casual interviews with some possible users and then provided some 'pros' and 'cons' style [feedback](https://github.com/A-Madeline-Bates/Group-Web-Project/blob/main/Design/prototypes/Prototype%20voting%20board.pptx) on each design based the responses from their interviews. From this feedback we determined that the interface of the 'infinite' designs was too confusing. Our core design goals were to create a recognisable social media-style interface and to create a platform to educate people about social media, and we ultimately concluded that 'dynamic interface' designs added a lot of complexity to the design without helping us to achieve these goals. Although users enjoyed the 'novel' nature of the dynamic designs, they were more confusing and less recognisable than the 'traditional' design. The fact that the 'traditional' design referenced the layout of websites like Twitter and Facebook in a straightforward way made it easier for anyone familiar with those sites to understand what our site was mimicking and how they should interact with it. It was therefore decided that the 'traditional' design was the best one to form our design basis moving forwards.

In our [first wireframe design](https://github.com/A-Madeline-Bates/Group-Web-Project/tree/main/Design/prototypes/first-wireframe), we took the basic layout of our 'Traditional' paper prototype design and tried to integrate a few popular features of the paper prototypes which we had shelved. This included the rounded shape of objects on the 'bubble' and 'web' designs, and concept of the infinitely scrolling timeline. We also created a draft version of the 'comment page' layout in which the comments appeared in 'bubbles' around the original post rather than underneath it as they would in a more traditional social media comment box layout.

After designing our wireframe, we casually interviewed a few individuals to gain some feedback about it. Insight from these interviews helped us to design a more formal anonymous questionnaire about the design. The questionnaire was split into three sections, each designed to address different questions we had about how the project should develop. We first asked some questions about the demographic of our respondents and their experience with social media. This was to help us understand how users with different experiences responded to the site. We then showed the respondents our wireframe and asked them questions about the interface, including how confident they were that they would be able to implement certain key features, and which page design they preferred in cases in which we had not settled on the final layout of a page. In the final section, we gave a full description of the website's concept and then asked the users to state the level of priority they would give to different features of site to help us set priorities moving past our minimum viable product.

Feedback from this questionnaire reassured us that the fundamental layout of the page could remain as it was, because it was understandable by our core demographic.

At this stage we also completed User Journey Mapping to help us understand how different users might interact with our product. The user types we explored were based on some of the feedback we saw in our questionnaire. This process and the way it affected our thinking is detailed in the UX Approach section of the paper.

The feedback we received about the design and our thoughts following the User Journey Mapping were implemented in our [second prototype design](https://github.com/A-Madeline-Bates/Group-Web-Project/tree/main/Design/working%20wireframes/initial-version). These changes included:

* Removing links in the left navigation bar to simplify and improve the typical interaction flow and encourage users to navigate to the 'About' page.
* Highlighting the page that users are on in the left navigation bar to make it more difficult to 'get lost' on the website.
* Adding icons to the left navigation bar.
* Integrating the 'traditional' comment interface into the design rather than the 'bubble' design.
* Adopting the 'differentiated user post' design for the fact box rather than the floating text box design.
* Adding a 'back' button to the comment page.
* Prioritising having the bots responding to 'trends' and emulating the 'seamless' experience of real social media sites over other features.

This new wireframe formed the basis of our first stage of technical development. At the same time, we created two more wireframes which represented our realistic ‘stretch’ goals. The first of these [included comments](https://github.com/A-Madeline-Bates/Group-Web-Project/tree/main/Design/working%20wireframes/comments-version), and the second [included comments and alerts](https://github.com/A-Madeline-Bates/Group-Web-Project/tree/main/Design/working%20wireframes/notifications-version). These were created so that if we moved into working on our stretch goals, we would not be slowed down by design ideation.

**Technical Process and Responsive Design**

By the end of our first sprint, we had reached a stage at which our site was fully interactive, and we made the decision to bring our design back to users. In order to gain a more qualitative understanding of the design, we decided to conduct semi-structured interviews with a range of people who were regular social media users. Although we had made significant progress with our technical development, there were certain features of our second prototype design that we had yet to implement. The missing features included the final text to replace the filler text, the highlighting of the ‘Fact Box’ on the timeline and the highlighting of the current page in the left navigation bar. The state of the design at our second feedback stage can be found [here](https://github.com/A-Madeline-Bates/Group-Web-Project/tree/main/Documentation/Questionnaires%20and%20Surveys/Semi-Structured%20Interview%2027:04).

All users interviewed found the page intuitive to use, and when asked to give ‘first impressions’ of the site, all users said that design bore a significant similarity with social media sites that they were familiar with. However, they also identified significant problems with the site. People thought the page looked unfinished, unconsidered, or undeveloped. All users stated that they would be unlikely to use the site in its current form, and cited lack of content and the look of the site as reasons why they’d be unlikely to use it. However, the response to the website’s concept was generally positive. In answer to the question ‘Do you think this website could achieve its goals with further development?’ (where the goal specified was ‘educating people about social media on a fun and engaging platform’), all respondents said yes. One user thought it could be very effective and one user said it was an interesting way to ‘tell a story’ about social media.

In answer to the question ‘do you think you would be more likely to use the site if it was more polished looking?’ all users said yes. However, in answer to a similar question about whether they would be more likely to use the site if we implemented our next stretch goal (which was to generate likes and comments from the bots), the response was more mixed, with two users enthusiastic advocated of the idea, one user suggesting they would find that feature ‘pointless’ and another suggesting that they would not find it ‘compelling’.

Feedback from this interview helped us to hone our goals going into the next sprint. In response to this feedback, we decided to focus on finishing our minimum viable product and making it look as ‘polished’ as possible, rather than adding extra functionality to the site. From this feedback we settled on our [final design](https://github.com/A-Madeline-Bates/Group-Web-Project/tree/main/Design/working%20wireframes/final-design).

**Interacting Users and Broader Stakeholders**

Early in the process we identified young people of age 18-25 as a key user group for our product. This is because we believed that young people were more likely to spend more time on social media and therefore would be more familiar with the interface we were trying to emulate. Because social media plays a bigger part in their lives, we also thought they would be more interested in, and receptive to, the education elements of the site. The belief that young people were the primary users of social media was backed up by what we learned from our academic review. As Victoria A. Goodyear and Kathleen M. Armour state in their chapter ‘What young people tell us about health-related social media and why we should listen’, “It has been reported from numerous international and socio-economic contexts that young people have the highest rates of social media use of any age group”.[[1]](#footnote-1)

In our own (admittedly small) initial [user survey](https://github.com/A-Madeline-Bates/Group-Web-Project/tree/main/Documentation/Questionnaires%20and%20Surveys/Questionnaire%2028:03), all the users who self-identified as 18-24 said that they used social media ‘every day’. Most of the 18–24-year-olds questioned said they believed they had only an ‘Average’ level of knowledge about social media, where the named areas of knowledge were ‘how social media sites operate’, ‘privacy’, and ‘the effect of social media on mental health’. All respondents in that age category also all answered ‘Extremely confident’ to all questions relating to how easy to navigate they would find our social-media-esque interface.

In contrast, a greater percentage of 25–34-year-olds said they believed that they had an ‘Above average’ level of knowledge about social media (50%, compared with 25% of respondents answering ‘Above Average’ in the 18-24 age group). The responses of the 25–34-year-olds to the question ‘how often do you use social networking or micro-blogging sites’ were also more scattered, with only 50% of users responding, “Every day”.

The responses in the older age groups indicated even less engagement with social media, with only 25% of responses indicating that they used social media sites every day.

There was a strong correlation with between how often respondents used social media and how confident there were with our interface, with most responses from users who used social media ‘every day’ or ‘a few times a week’ indicating that they would be ‘extremely confident’ or ‘very confident’ using both prototype pages we gave them to look at. This correlation could be from external factors- social media sites are so popular that it stands to reason that people who use social media sites less regularly probably use the internet less regularly as well. However, we felt that the responses validated our suppositions that

* As the most prolific users of social media, young people were the most appropriate target demographic for our product.
* Individuals who used social media regularly would find an interface which was very reminiscent of popular social media sites very easy to navigate.

[maybe we should make some of this less feedback based and more academic study based?]

It was also interesting to see a correlation in our survey results between people’s understanding of social media and their age group, although as the level of understanding was self-reported and our survey very small, it would be unwise to draw any serious conclusions on this topic.

One interesting stakeholder we identified in our feedback were the users themselves. This was raised by a respondent to our questionnaire who said:

“I think the overall idea is really good, but there is one part that bothers me. In your description, you say the aim is to get people to stay on the site longer. Social media also has quite an addictive quality to it, and while I think the aims of this site are beneficial, how does this play into overall ethics? If you accidentally create an addictive social media stream that feeds people information that keeps them on the site, could this be used by others to do what you're raising awareness for?”

This response raises an interesting question about user manipulation: if we set out to create a product which is addictive for individuals who are particularly receptive to social media addiction, how can we guarantee that our implementation wouldn’t be adopted by someone else with the aim of exacerbating the problem of social media addiction.

Although we remained mindful of this concern within our development process, we ultimately concluded that other far more powerful implementations of the ‘social media bot’ existed (including ones that were already in operation on major social media platforms) [citation?] and therefore the damage that was likely to be done by our social media bot was limited. However, we resolved to make exploration of this ethical issue part of our evaluation process, so that final say on this issue would be the stakeholders’ themselves.

Another issue that was raised was the possibility of our bots saying things that were considered offensive, or even participating in hate speech by virtue of the fact that their output is random. The issue of offensive or hateful speech existing on the site is exacerbated by the fact that the site accepts input from users and regurgitates it anonymously onto the timelines of future users without filtering it. This issue was pointed out by a user in our first questionnaire, who wrote:

“I would caution about your policy and expected moderation for real users of the site and potentially the automated behaviour of the bots. 'Tay' is a good case study of needing caution in automation and public access: <https://en.wikipedia.org/wiki/Tay_(bot)>”.

Everyone is a potential stakeholder for the issue, as the normalisation of offensive and hateful speech is an issue that effects everyone, whether they use the internet or not. We were guaranteed a degree of protection from the bots saying anything offensive as the sentences they generated were built by piecing together a database of pre-written phrases that we had created. However, the only protection we have from user-generated hate speech appearing on the site is that the site is not ‘live’ on the internet and is therefore unlikely to be accessed by anyone who would input hate speech. As the site is at such a small scale it is also very easy to moderate its database. At the point that the site was circulated more widely, it would be an urgent priority to build in a system for monitoring content or (perhaps more sensibly) to stop the site regurgitating content at all in order to protect the stakeholders. We resolved to make the issue of offensive language generated by the bots another part of our evaluation process.

**UX approach**

Following our first user survey, we completed some User Journey Mapping to give us a greater understand of how individual users might use our product. To start this process, we created some user-story storyboards based on our minimum viable product.

Sarah:

A picture containing text, newspaper

Description automatically generatedJosh:

A picture containing diagram

Description automatically generated

Betty:

A picture containing text, newspaper

Description automatically generated

We then created Empathy Maps for all the users we had defined.

Sarah:

Diagram, timeline

Description automatically generated

Josh:

Diagram

Description automatically generated

Betty:

Diagram

Description automatically generated

These empathy maps were based on a template by Dave Gray, accessed through UX Planet.[[2]](#footnote-2)

Inspired by this process, we did a drawing of the site’s points of interest, highlighting in gold the links that our users would find particularly important. By doing this we hoped to refine our design into one in which the features that users most wanted were clearly available and not crowded out by anything else.

Touchpoints Graph 1:

Graphical user interface, application

Description automatically generated

1. Title
2. ‘About’
3. ‘Home’
4. ‘Explore’
5. ‘Notifications’
6. ‘Messages’
7. ‘Profile’
8. Text box
9. ‘Post’ button
10. ‘Bot’ posts
11. Like button
12. Comment button
13. Fact box
14. Infinite Scroll
15. Trends

Touchpoints Graph 2:

Graphical user interface, text, application

Description automatically generated

1. Title
2. ‘Home’
3. ‘Explore’
4. ‘Notifications’
5. ‘Messages’
6. ‘Profile’
7. About box
8. Trends

As the interface of our deign was quite simple, we concluded that it was not important which order users navigated around the site in. This process educated our text stage of decision making in relation to the site.

1. V. A. Goodyear and K. M. Armour, “What young people tell us about health-related social media and why we should listen” in *Young people, social media and health*, V. A. Goodyear and K. M. Armour, Eds. Abingdon: Routledge, 2019, pp.1. [↑](#footnote-ref-1)
2. D. Gray. (2019, Feb. 21). A Beginner’s Guide To User Journey Mapping [Online]. Available: https://uxplanet.org/a-beginners-guide-to-user-journey-mapping-bd914f4c517c [↑](#footnote-ref-2)