HCI – Design Document - UX Project
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1. Introduction

This document encompasses the process of redesigning the My UEA website and portal, with a focus on design, usability and accessibility. The My UEA website is a web application that allows students and staff to access information such as: News, event listings, notices, as well as other information as they might need. As it stands the current website has many aspects which are unnecessary or difficult to use. This project aims to improve these areas and to greatly improve the overall user experience. Trello has been used as the main tool for design documentation this is linked here:

https://trello.com/b/0FmCuxF2

2. Personas

To aid in the evaluation process of the current website, 2 personas of students currently at UEA have been created. These will help create empathy with the users of the website, and to remove the concept of the 'elastic' user becoming a development problem. This is where the needs of the user end up changing based upon the needs, understanding and convenience of the developer. Focus on the user is easily lost.

Shay Jordan
Shay is a student in the first year of his BSc Mathematics degree at UEA. Having only recently turned 18 he is one of the youngest people on his course. He is originally from Devon and has recently moved to Norwich for his degree. He enjoys socialising with his friends online and playing video games in his spare time and has until now been living with his parents. Since moving to university he has had a lot of new things to learn about life at UEA and about his degree, meaning he has ended up feeling a little overwhelmed as he is still getting used to life away from home. He suffers from an acute visual impairment which is part of the reason why he enjoys listening to lectures instead of reading. This means that when using a system, he is especially reliant on following hints in design such as size and colour to try and read only the things he needs to. This also plays a part in why he tries to spend as little time using text-based systems as possible, preferring to use images and sound instead. He is an extrovert and enjoys participating in the different aspects of university life with his friends on campus, meaning he always wants to be up to date with everything happening on campus, all in one place ideally.

Goals:
- Keep up to date with happenings around university
- Quickly access the information he needs

- Follow non-textual hints

Frustrations:
- Heavy use of text
- Confusing and cluttered interfaces
- Unnecessary UI elements
- Inconsistently placed objects

Eleanor Brooks

Eleanor is a student at UEA in her third year of studying for her MA in Modern History. She has lived with her father in Stoke-on-Trent her whole life and at 22 years old she has worked various part-time jobs but has recently decided to return to academia. Passionate about her vegan lifestyle and her work, she has little time for parties and finds herself staying in and studying most nights. Since she is so committed to her work, she finds herself on the UEA portal quite often, trying to either access blackboard, evision or one of the academic resources on My UEA. As a slightly older student she is confident with independent living and knows a lot of people in Norwich. When she is using the UEA portal she is aiming to spend as little time there as possible before she finds the work resources she is looking for. She isn't interested in any of the other things on the My UEA site as it is irrelevant to her. As she spends a lot of time navigating the site looking for different resources, ease of navigation is a high priority for her and knowing where to look plays a large part in her experience of this kind of page.

Goals:
- Find work resources
- Navigate the site easily
- Spend as little time navigating the site as possible

Frustrations:
- Spending a long time without finding what she is looking for
- Not knowing where to look next
- Too many irrelevant things on the page

3. Scenarios

The personas developed above have been used in developing scenarios to establish the design requirements for the website. These will help aid in the exploration of needs, requirements and context of the system.

Scenario 1

Shay hears from his friends that there is an event happening in one of the lecture theatres later that night and they agree to go. He searches for and finds the event list. He makes a note of the time and adds the event to his

calendar, so he doesn't forget. As he is about to leave, he returns to his dashboard and sees that a notice has been posted about maintenance on the walkway heading to the lecture theatre. He checks the campus map to find another way there, makes a note of it and gets ready to leave to go to the event.

Scenario 2
Eleanor is running late for one of her assignments and needs to find information quickly so she can get started. She goes to the UEA portal and assumes that My UEA will have the information she needs. On the dashboard she sees a box for the library and clicks on it. She finds the book she needs in the system and checks it out. From her dashboard she decides to quickly check her email and then looks for the link to evision in order to check her timetable so she can schedule time to work. Her friend suddenly calls her and asks for advice. Eleanor gives her friend the best advice she can, however she ensures she tells her to look for the wellbeing page as it has some advice that might be useful to her. Initially sceptical, her friend finds the wellbeing page and notices a link on the page which seems to resonate with her situation and gives it a read.

These scenarios can now be used as a basis for the overall design and technical implementation. And will be key in the development of a shared vision for the rest of the iterative development cycle. The key points we can infer from the scenarios are as followed:

1. Shay wants to be able to find events and add them to his calendar
2. Shay wants to be able to find out about notices and news that will affect him
3. Shay is still leaning the UEA campus so needs to be able to access a map easily
4. Both Shay and Eleanor wants to be able to find information quickly
5. Eleanor wants to be able to link her friend to the wellbeing page easily.

4. Use cases
To focus on the user-system interaction, and to show the functional requirements, use cases have been developed. Using our Personas as actors, we can develop use cases to show what happens when they interact with the system. The following use cases have been developed to fit the scenarios in which the personas were used. This will also be used for development purposes to ensure that the structure is consistent and to help avoid errors.

USE CASE NAME	Add an event to calendar
Goal in Context	Add a reminder for an event to the personal calendar
Scope and Level	My UEA website
Preconditions	User is looking at the portal page

Summary	Find an upcoming event on the Events page and add it to the user's personal Outlook calendar
Actors	User, Outlook calendar, My UEA site
Stakeholders	User, Event organisers, UEA
Triggers	User presses 'log in to My UEA' button
Success Scenario	- Log in to UEA account - Systems opens dashboard page - Select 'Events' from dashboard menu - System opens events page - Locate any event on page - Hover mouse over event to show more details - Click 'Add to My Calendar' button - Event added to user's Outlook calendar successfully
Failure Scenario	- Log in to UEA account - Select 'Events' from dashboard menu - Locate any event on page - No events found Second scenario: - Log in to UEA account - Select 'Events' from dashboard menu - Locate any event on page - Hover mouse over event to show more details - Click 'Add to My Calendar' button - Error connecting to Outlook account - Display error message informing user of the nature of the error
Post Conditions	Success conditions: Online event has been added to user's account Minimal conditions:

	Result logged to return a feedback message to user

USE CASE NAME	View most recent notice
Goal in Context	View all available information about a notice
Scope and Level	My UEA website
Preconditions	User is looking at the portal page
Summary	Find the most recent notice and view all available information about it
Actors	User, My UEA site
Stakeholders	User, UEA staff
Triggers	User presses 'log in to My UEA' button
Success Scenario	- Log in to UEA account - System opens dashboard page - Find notices section on dashboard - Find most recent notice from notices - Click on notice to view more information
Failure Scenario	- Log in to UEA account - Find notices section on dashboard - No available notices
Post Conditions	User is viewing the full details of the most recent notice

USE CASE NAME	View emergency contacts
Goal in Context	View a list of emergency phone numbers
Scope and Level	My UEA website
Preconditions	User is looking at the portal page
Summary	Navigate the Wellbeing pages to find a list of emergency phone numbers
Actors	User, My UEA site, emergency contacts
Stakeholders	User, UEA staff, emergency contacts
Triggers	User presses 'log in to My UEA' button
Success Scenario	- Log in to UEA account - System opens dashboard page

	• Select 'Wellbeing' from the dashboard menu • System opens wellbeing page • Find 'Emergency Contacts' on the My Wellbeing page • System opens emergency contacts page • Find list of contacts on page
Failure Scenario	N/A
Post Conditions	User is viewing the list of emergency contacts

| USE CASE NAME	Log in
Goal in Context	Log in to UEA portal
Scope and Level	UEA portal system
Preconditions	User is looking at the portal page
Summary	Log the user in to their UEA account
Actors	User, My UEA site, UEA account
Stakeholders	User, UEA staff
Triggers	User starts to enter details into login
Success Scenario	• Enter UEA email and password • Select 'log in' • System successfully logs user in
Failure Scenario	• Enter UEA email and password • Select 'log in' • System detects invalid credentials • Returns 'invalid credentials' message to user
Post Conditions	User is logged in to their UEA account
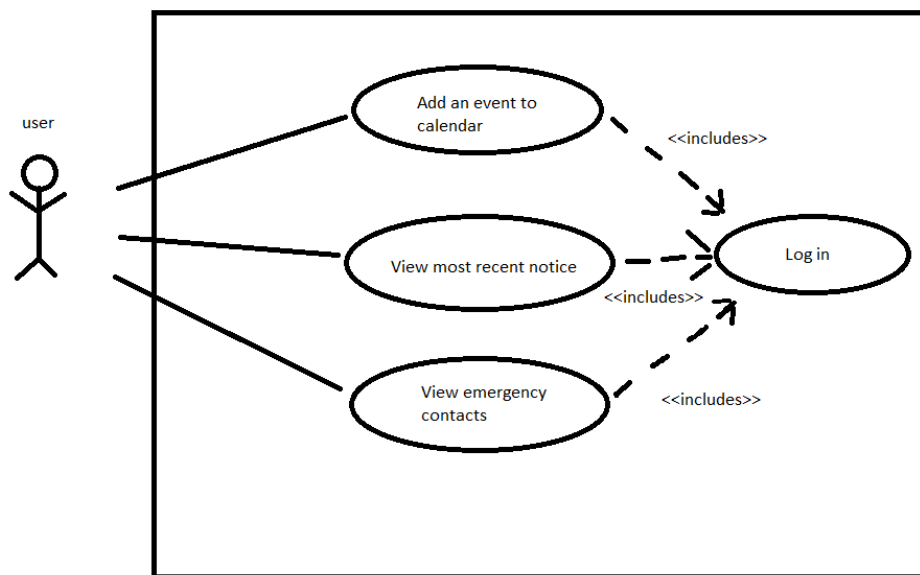
Figure 3.0

This use case diagram shows the users interaction with the use cases above.

5. Think Aloud Evaluations

From the use cases developed above, 4 questions have been proposed to ask potential users about the current system. These questions have been developed to be broad to allow to users to experience the app for themselves rather than be forced down a direct path. While asking uses these questions the users to talk aloud about what they were experiencing and their options on each aspect of the site. This was audio recorded and then transcribed.

Think-Aloud evaluations are extremely simple to conduct and often give good insight into how a system is actually used. However different observers may see and say different things. Priority has been added to all the issues raised based on the number of times each factor was raised. Design trade-offs had to be made as if every feature suggested was added the website would be overwhelmingly complicated and difficult to use. Thinking out loud can also be difficult for many people. Therefore, we also conducted Post-task walkthroughs where the transcripts were played back to participants for comment. These are useful for clarification and for asking reasons for actions.

The questions asked during the think aloud were as followed:

1. Can you log into the UEA Portal?
2. Can you find the most upcoming event and tell me about it?
3. Can you find and tell me a notice that might affect me if I was travelling to campus this week?

4. What does MY UEA recommend you do if you have an issue with your wellbeing?

The text below is a breakdown per question of the important and interesting things users said during the interviews. They have significant implications for a redesign as they highlight the problems clearly. In the design section each comment is considered within the redesign process.

1. Can you log into the UEA portal?

Think-Aloud User 1:
"Okay so I'm on the UEA portal page is this it? Is that all I needed to do? (As the user asked a question here, they were prompted with a simple no) Okay I see some text that says "For direct access to UEA's learning portal" but I'm not sure if that means the button directly above or below it. (User clicks on the button above and logs into my UEA.)"

Think-Aloud User 2:
"Yes, so ill click on MY UEA and login" (This user said in the post interview playback that they are familiar with the UEA portal so knew how to do this easily. This shows how important familiarly with a system can be. This must be kept in mind when redesigning this page)

Think-Aloud User 3:
"So, to login I would need to press on one of these buttons. The buttons are quite small arnt they I can hardly see them! I'm not sure which one to press there are too many does one say "UEA portal?" (The user was then reminded to keep talking and try to work this out if they could"). It would help helpful if there were less options to make it less confusing. Ahhh... I see "For direct access to UEA's learning portal" is that the button above or below I think it's the one below. (User ends up on blackboard. They work their way back and clicked the top button). Post interview the user said they weren't sure how they were supposed to know what button did what and where it took them.

2. Can you find the most upcoming event and tell me about it?

Think-Aloud User 1:
"Okay so I'm starting on this page with news. (talking about the dashboard) I can't see any event section; I'll try scrolling down. Okay I see lots of icons now it must be here. It's quite confusing though as its mostly pictures. I can't what each thing is from the picture because their quite generic. I can't see events here. Okay I'll try searching for it. Okay search button is at the top. It would be nice if it autocompleted as I typed. (The search result comes up, but the user doesn't click on it and clicks on the second page down instead. In an interview when listening back the user said they didn't realise the option had

come up as the button to click to that page was smaller than the button to click to the other search results). Use failed to find page.

Think-Aloud User 2:
"I've never looked for an event before. I can't see it here straight away. I'll try pressing on the menu at the side. Events… a large search bar has come up under the events heading. I don't think it has loaded properly. Okay scrolling down, I can see the "University of Lincoln Hackathon" I can't click on it though. I thought that is how I would get more information".

Think-Aloud User 3:
"So from this page I can click on the menu button. Ahhh... there is it… easy. Events. Hmm. So its brought up a giant search bar for events. I don't know what to search? (No responsive is given to the question). Oh I see I scroll down and I can now see two events and a calendar. I'm not sure what this calendar is showing me. But I can tell you the latest event if you want me too? (user was reminded to keep talking) Yes. The latest event is University of Lincoln Hackathon". It's in a very large box for some reason.

3. Can you find and tell me a notice that might affect me if I was travelling to campus this week?

Think-Aloud User 1:
"Okay so from this homepage I would first try looking in the grid of pictures and buttons… ermm I can't see it here but I'm going to double check as I might have missed it. I'll try searching for it. (type it in the search bar) Okay found it. That was more difficult that I thought it would be. It tells me that the central car park is going to be closed."

Think-Aloud User 2:
"I can't see a notices button in the menu so I'm going to search for it. It's quite annoying that it's hard to find. Okay I've found them. It would be better if I could see more notices on the screen so I could find the relevant ones more quickly as half the screen is blank for some reason. The most relevant one I guess would be the car park being closed."

Think-Aloud User 3:
"Ermmmmm to find notification ill just search as that has been the only way to find things for everything else. Ah. Notices. Yes. It says the central car park will be closed so if I was driving in that would be relevant too me."

4. What does MY UEA recommend you do if you have an issue with your wellbeing?

Think-Aloud User 1:

"To help with my wellbeing… okay I'm going to guess that there is a wellbeing page. Okay I see it on as one of the pictures with the guy and the dog" There is now a button for crisis support and help for students and staff. It would be more helpful I think if crisis support wasn't hidden behind another button and was more upfront"

Think-Aloud User 2:
"Okay so I can find this using the dashboard and click on my wellbeing. As I'm a student I can then click on student support. I would be better I think if this came up straight away as I have logged in so it should know that I'm a student rather than a staff member. I think the information given is really good and the wellbeing services have helped me in the past."

Think-Aloud User 3
"Ermm… I'll use the search again to find the page. Wellbeing okay here it is" (The user finds a different wellbeing page to the one expected in the test)

An investigation was conducted after this discovery finding that is are two wellbeing pages that exist on the existing My UEA site; Wellbeing (fig. 1) and My Wellbeing (fig. 2). The Wellbeing page sports both a better design and contains all the important elements of My Wellbeing, including some additional elements. In the redesign the My Wellbeing page will be removed as it is clearly redundant and only serves to add more options to an already massive main menu. To make the menu more readable My Wellbeing will be removed and the Wellbeing page will be the focus of this redesign.
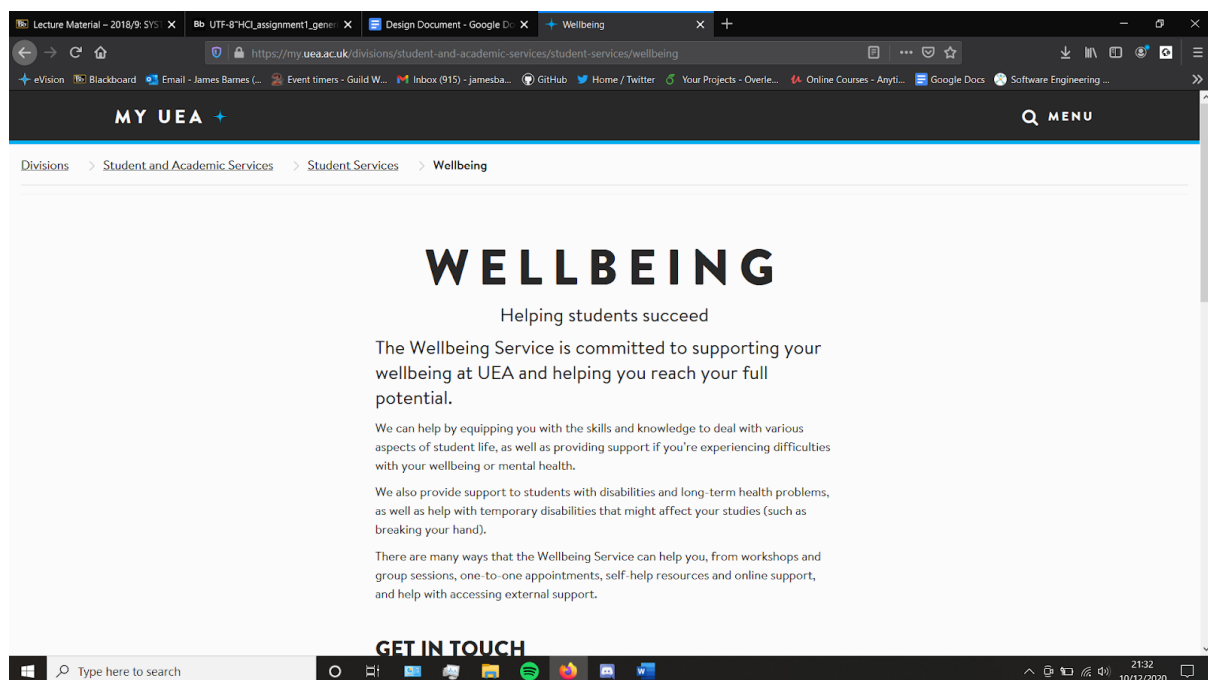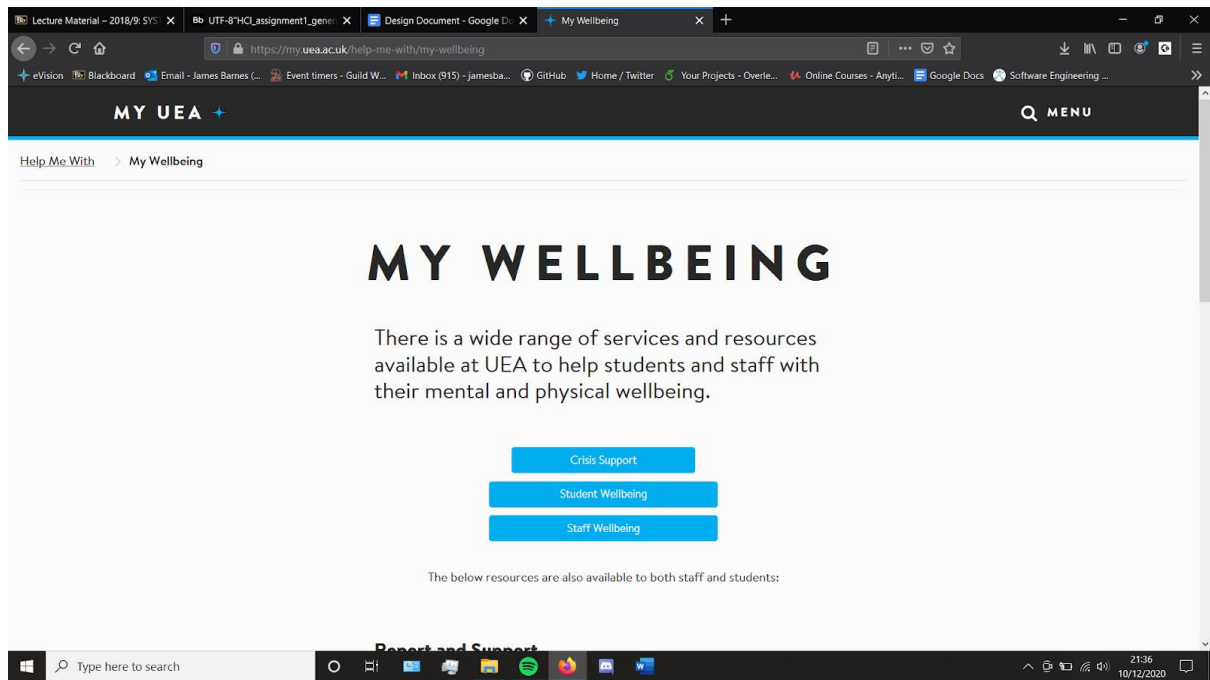

Fig. 1: Wellbeing page

Fig. 2: My Wellbeing page

From each question we can developed design requirements for the system these will then be used in combination with factors from the personas and scenarios:

- Placement of text must be clear and obvious to what it is referring too
- Ensure all buttons are clear and easy to see
- Having too many options is confusing and these the number of options should be simplified where possible.
- The dashboard is confusing for users and the struggle to identify what is what
- Search box doesn't auto complete
- Events page has a confusing layout this needs to be redesigned so the user does not need to scroll.
- calendar section on events page is unnecessary
- Notifications need to be moved to a more discoverable place within the website

6. Questionnaire Evaluations

After conducting our think-aloud evaluations; to receive a more general sense of feedback on the current website, a survey was conducted on 40 UEA students and Staff. This allowed the discovery of the overall opinion of UEA students of the site. As well as assisting in the importance ranking of different sections of the website. It also helped to set general benchmark performance goals for our redesign with the aim of asking if overall our new design was easier to use that the current design in place.

Five questions were asked during the survey:

1. Which of the following do you use most often when on the UEA portal?
   a. eVision
   b. Blackboard
   c. MYUEA
   d. Other

Have you ever checked the notices page on the My UEA website?
   a. Yes
   b. No
   c. Didn't know it existed

Do you know where you would look to find a list of emergency contacts on the My UEA website?
   a. Yes
   b. No
   c. Didn't know it existed

Have you ever customised your dashboard on My UEA?
   a. Yes
   b. No
   c. Didn't Know I could

Overall, do you feel the MYUEA website is easy to use?
   a. Strongly disagree
   b. Disagree
   c. Neutral
   d. Agree
   e. Strongly agree

The Response to this first question will help us arrange the rankings and the order of the login buttons on the Portal Page. Blackboard will be first in the list, followed by eVision they by MYUEA. MYUEA and other options are off lesser priority and therefore will be displayed further along the page. This design will be useful for those with certain disabilities as it will allow users using text to speech to navigate the site faster. It also will allow us to meet Shay's and Eleanor's needs as both suggested being able to use the site quickly as a priority.
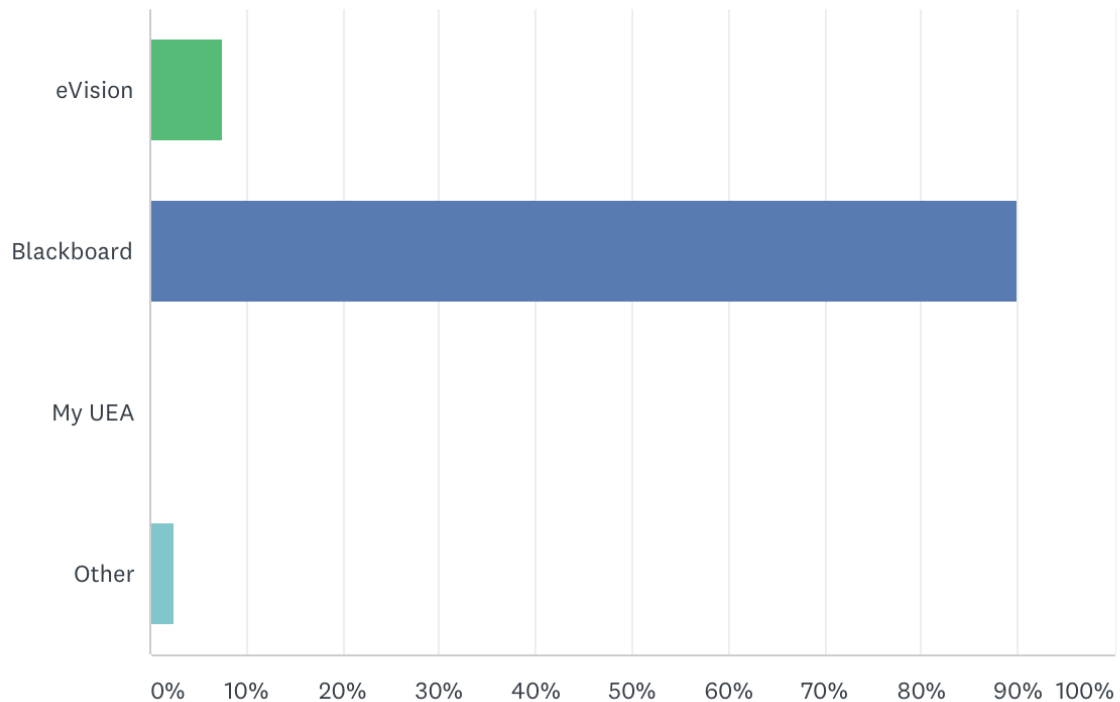
The response to the second question about the notices section highlighted that 75% of users surveyed had never looked at the notices section of the website. This will be a key factor in redesign as this is a key discoverability issue. Moving the notices section to the homepage is being considered as a main way to address this.
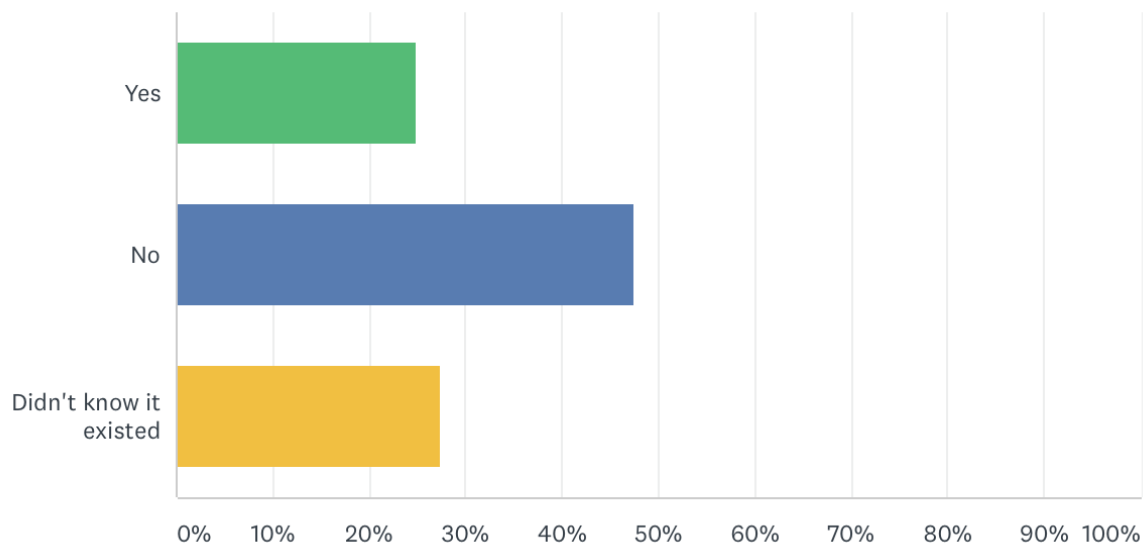

The third question was with regard to emergency contacts. Only 15% of users were aware or have used of this feature. This feature is one that is could be extremely useful for a user and potentially help users address a wide variety of problems quicker problems. This could be brought forward to a button on

the homepage to be more accessible. Currently it is hidden behind a button in the My Wellbeing section.
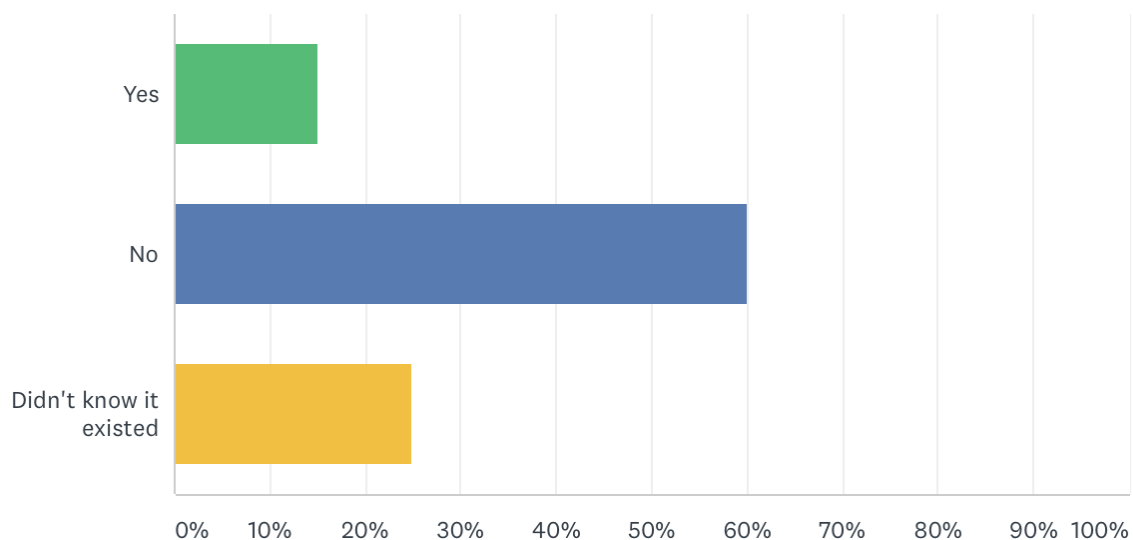
With Question 4, only 12.5% of participants had customised their dashboard. The high number of respondents saying 'no' suggests that this is a feature of low priority and is something that could be sacrificed for simplicity if required. The 20% of respondents not being aware of this feature also links to is visibility and the lack of awareness.
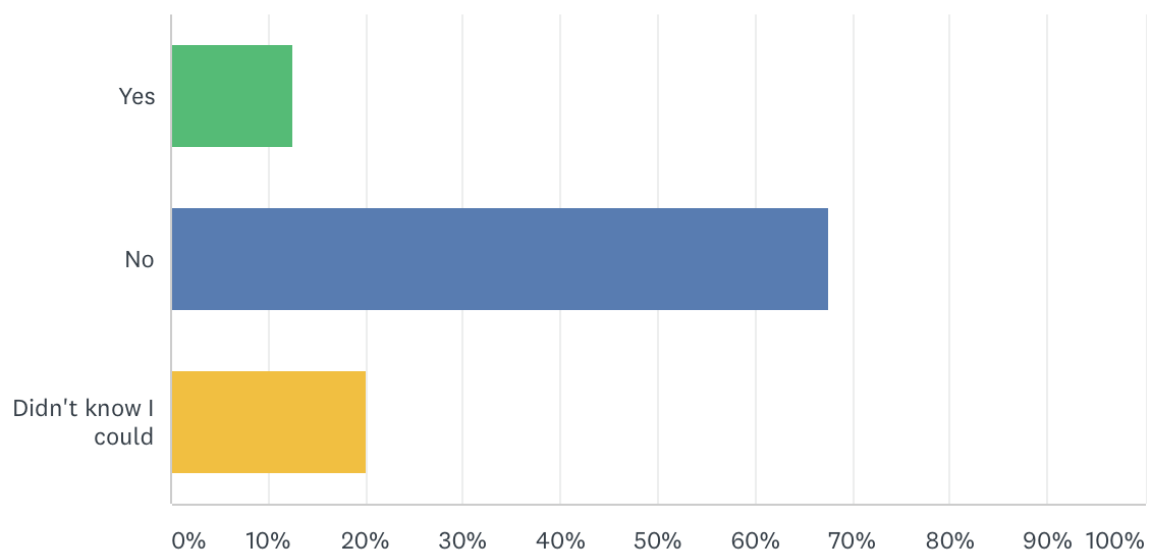
Finally question five will be used as a benchmark for the success of our redevelopment. A large percentage of people said the site was not easy to use. It is our aim to flip the results of this graph as well as make the features above more accessible. This will be taken into account in the Low-Fi redesign below.
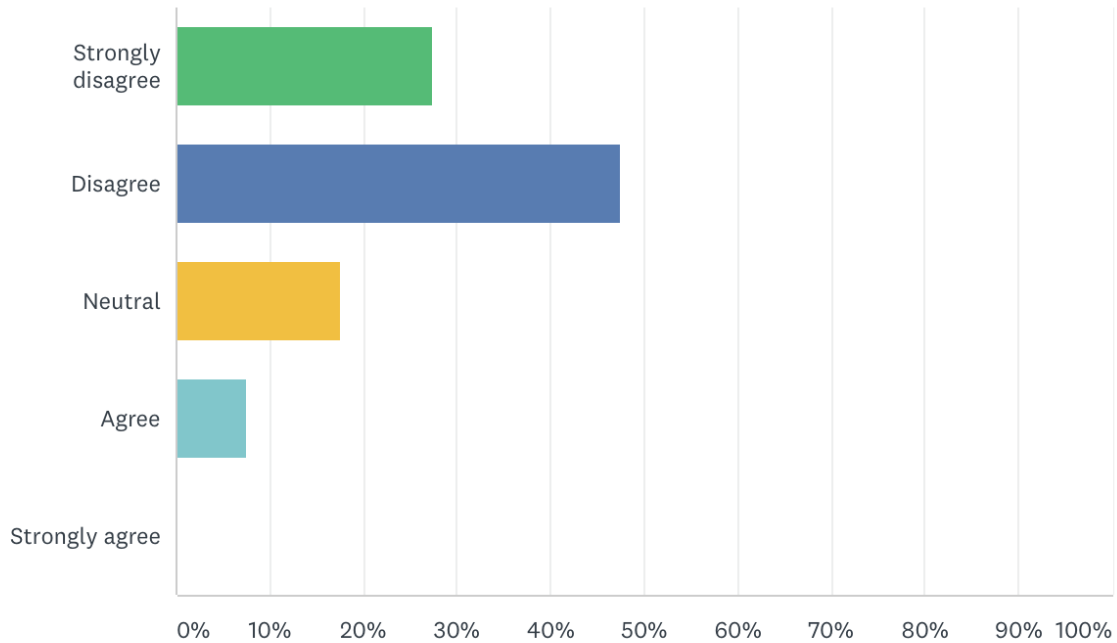
7. Low-Fi Prototypes

As a first step in the design phase Low-Fi Prototypes were constructed. A prototype is a representation of a design before the final version is produced. The first low-fi prototype will be used to evoke reactions from users in our design process and to test out the feasibility of design ideas. This is much faster than building the complete website and then making changes at a later stage.

Our first low-fi prototypes have been designed using MS paint and by hand. These will be used in an iterative development and testing cycle. Each low-fi design will be shown to the users from the Think-Aloud evaluation asking for feedback on that iteration of design. Once the users approve the design or an explanation for a trade-off choice is given, the design phase will transition to a high-fi development.

For each of the follow Low-fi designs Normans Principles of Visibility, Feedback, Affordance, Mapping, Constraints, and Consistency. Each use of a principle is annotated on each design. Page viewing behaviour has also been taken into account. Users on a webpage don't often scroll down the page to find more content, '80% of viewing is above the fold'. All the important information is placed on the first page without the need to scroll where possible.

As the MY UEA website is targeted at a western audience in English all font has been alignment is to the left-hand side of the screen. This is to ensure it can be easily scanned and read as quickly as possible. The amount of whitespace on the site has also been balanced and reduced in most areas

with comparison to the previous designs use. However, some white space has remained to assist with readability and to reduce the feeling of page clutter.

With regards to accessibility principles the Web Content Accessibility Guidelines have been followed in the design process. These include a list of 12 accessibility principles. Some of these are not relevant for the style of website that we are developing. However, many are extremely important and key to the success of the website overall. The principles relevant at this design phase are listed below:

- The layout of the dashboard can be customised to hide and remove content that the user doesn't need. (Following principle 3)
- The design has zero use of seizure inducing content (Following principle 7)
- A navigation bar has been added to assist with fining content (Following principle 8)

Other major accessibility and 'designing for differences' recommendations have been taken into account but are less relevant for this project. Designing for older people and children is less relevant in for student-based site. The oldest users will be UEA staff, however the majority of these are under pension age and are of well-above average intelligence. Children are unlikely to be using the website at any time.

Low-Fi Design for Events page:

Events

Search bar made smaller to increase the number of events that can fit on the screen without scrolling

event name

location

date

add to calendaar

Event names moved to a list on the left hand side adhering to readability principles so the list can be scanned quickly

Location and date made clearer in bigger larger font to aid readability.

Drop Down menu for add to calendar as a replacement for the original calendar display method.

More events on next page to reduce information overload and reduced page loading time. This keeps the design minimalist in line with one of Jakob Nielsen's 10 general principles.

1 2 3 4 >

The nature of this redesign highlights important usability aspects of the design of the site. When locating an event, it is apparent that as the user is searching for an event it is important that information such as location and date are immediately visible to minimise the time spent searching the list for a suitable event for the user. This is especially important as the second persona, Eleanor, has a pain point related to spending too long looking for things. As the personas are meant to represent the main demographic it is important, they are considered.

The method of hovering the mouse over an event is seen in the original design too. There are some reasons for changing this, but this design choice could be the best options for users who may identify with the Shay persona in terms of accessibility. The events should certainly have a relevant image to go alongside them to both preserve the consistent use of images everywhere else on the site and also to assist users with a preference for non-textual information like Shay. Previously there were no images in the box so they fall out of focus as the main feature of the page, images will make the event boxes the most attention-grabbing thing on the screen as per the hierarchy of

importance. This is key in meeting Normans Principle as visibility is a main point mentioned in the process of designing a successful website.

Low-Fi Design for Dashboard page:
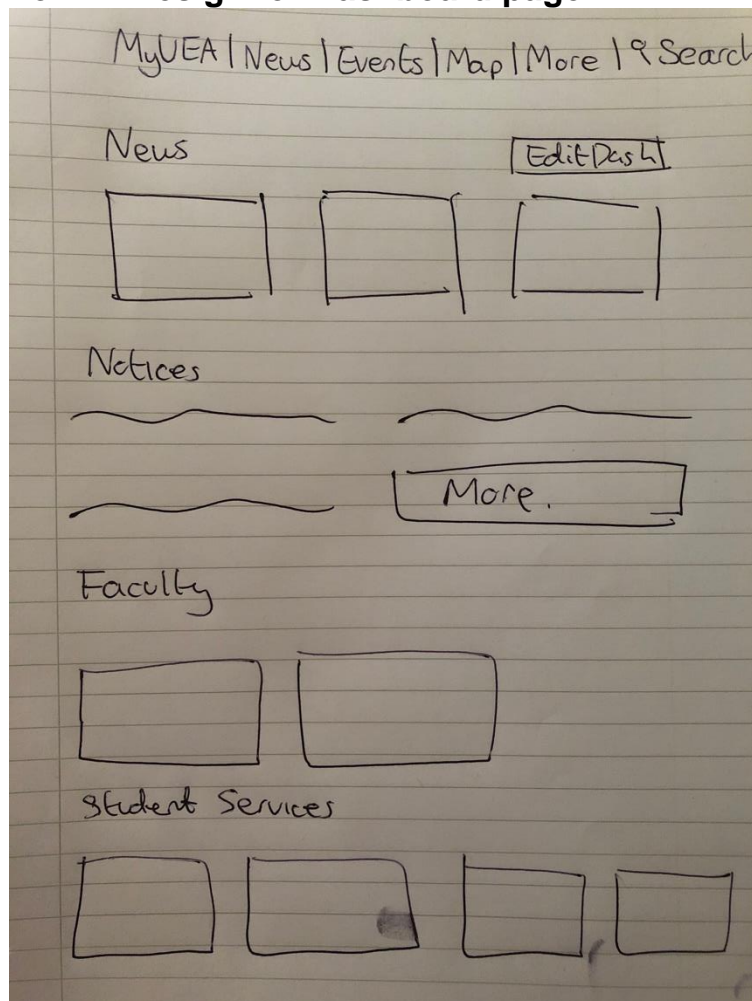
Search bar giving user control and freedom as well as ensuring consistency two of Jakob Nielsen's 10 general principles.

Edit Dashboard button moved higher on the page after the result of the survey showing 20% of student didn't know this was possible before

Notices moved to a more prominent position to reflect their importance

Dashboard sorted by categories to bring order and aid usability.

This redesign highlights 2 major changes that are the result of a large usability change in the site structure. Originally the notices were hidden in the main menu under news which is relatively hard to find especially considering what notices actually are. If the user has to go out of their way to find the notices, then they are unlikely to ever get seen as a user is unlikely to specifically seek out the notices page itself. As a result, the decision has been made to add a link to the 'notices' page on the dashboard where they can actually be noticed. This is highlighted in scenario 1 where Shay is passing through the dashboard and sees an important notice that applies to him. This change should drastically increase the visibility of notices and make them much more usable for the average user.

The move of notices to the dashboard poses some important issues. The notices themselves may require searching through as discussed in the use case. Spending a long time searching through notices is a pain point for the Eleanor persona and users will be unlikely to pay attention for long if they do

not find anything in a short amount of time. Therefore, this Low-Fi will attempt to find the balance between over and under displaying information in the notices section.

The second major change is with the structure of the dashboard following the feedback from Think-aloud evaluations. This said that it is hard to find items on the dashboard implying that it is relying too much on recall rather than recognition against the recommendation of Jakob Nielsen's principles. Therefore, this has been changed and sorted by categories to make this easier to navigate.

Finally, an improved menu bar has been added to this page along with the rest of the pages on the site. This features links to the main areas of the site, as well as proving an 'escape route' for the user to use at any time to return to an area they are familiar with. This also allows the user to navigate the site more quickly relating to the scenarios.

Low-Fi Design for Wellbeing page:
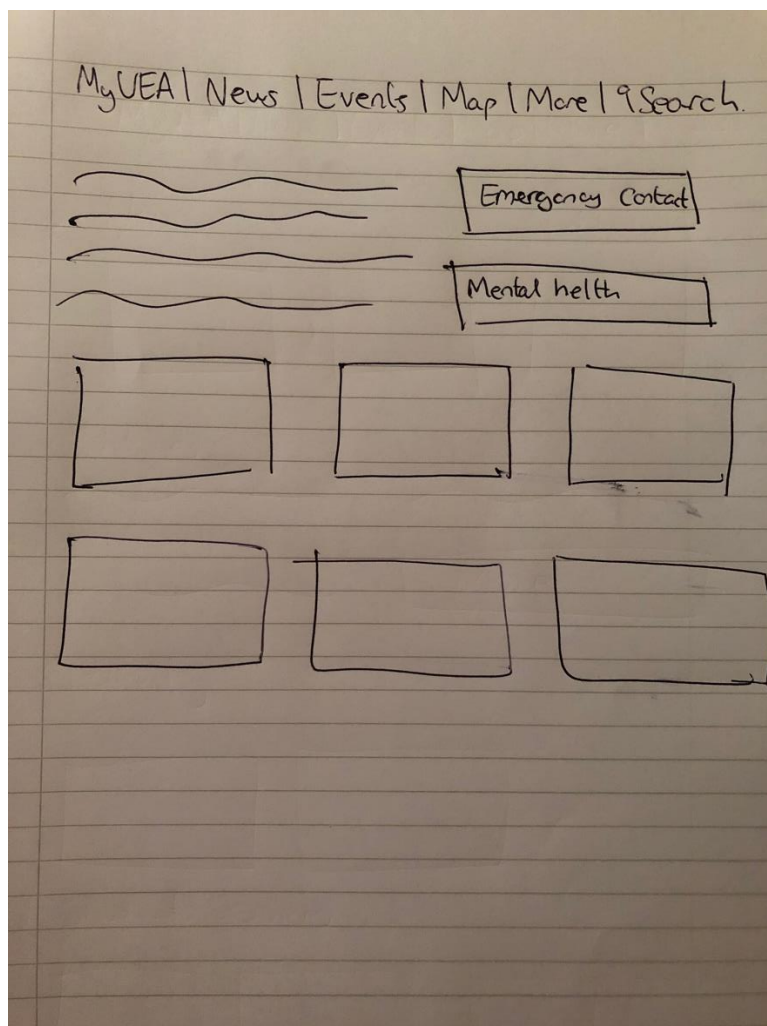
Search bar giving user control and freedom as well as ensuring consistency two of Jakob Nielsen's 10 general principles.

Text Feature key contacts next to two buttons for the most urgent support types
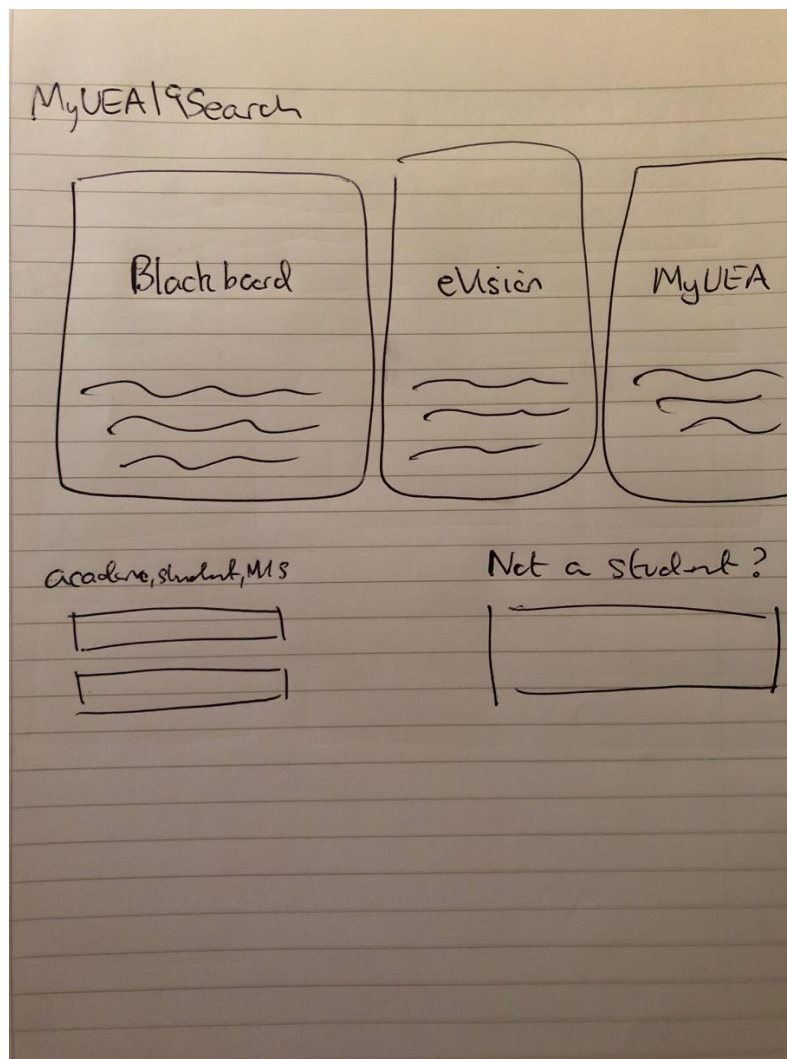
Box style design to ensure consistency and minimalism. One of Nielsen's 10 general principles.

This design has a large number of similarities to the existing site except for a few key changes. Previously the emergency contacts were classed under 'crisis support'. The redesign alters the button mapping slightly to change 'crisis support' to 'emergency contacts' to make it clearer what it contains. Emergency numbers are important in the case of an emergency and therefore they should be clearly visible. This is following feedback from the 3rd Think-aloud evaluation.

Then there is the emergency contacts page itself. The final step of the success scenario highlights an important issue: how easy is it to find the numbers on the page itself. The new 'emergency contacts' classification suggests that only one element of the page is important: the phone numbers themselves. The existing page included some text which both appears unnecessary and is larger than the contacts themselves, ignoring the hierarchy of importance.

One final note, as discovered during think-aloud evaluations, there are two wellbeing pages actually exist on the existing My UEA site: Wellbeing and My Wellbeing. The Wellbeing page sports both a better design and contains all the important elements of My Wellbeing, including some additional elements. In the redesign the My Wellbeing page will be removed as it is clearly redundant and only serves to add more options to an already massive main menu. To make the menu more readable My Wellbeing will be removed, and the Wellbeing page has been the focus of this redesign.

Low-Fi Design for Login page:

The sketch contains the following handwritten and annotation text:

MyUEA | Search

Blackboard   eVision   MyUEA

Academic, student, MIS   Not a student?

Annotation
Buttons large and clear to aid accessibility.
Several buttons for not a student simplified under one banner to ahead to simplicity principles
Survey results used to order main buttons
Description text under each banner reads information about what each service behind a button provides

This redesign of the login page behaves exactly as any other log in procedure to remain consistent with other login systems the user is familiar with a key useability factor. This stage is a simple logging in process and should be kept as such to keep the security as usable as possible. A login system is universally recognisable and should be kept as standardised as possible to preserve usability.

The redesign has occurred in the placement of the major buttons based upon recommendation from our survey. Blackboard has been placed as the first option to make this easiest to select and the other buttons have been placed in the order they are used. The buttons have also been made much larger to makes things easier to see. This helps our persona Shay as he faces a visual impairment. Several buttons have also been removed and placed under the not a UEA student banner to reduce the complexity of the page adhering to useability principles.

8. Design Trade-offs

There were 4 main design trade-offs that had to be made to progress development. These are listed below starting the reason for choosing a side in each:

1. Customisation vs simplicity
   a. Customisation has been reduced in order for the website to be simple and consistent for every user. It is easier to find parts of the website in a sorted list rather than in a user customised grid.
2. Hiding some advance features vs space
   a. Some advance features have been hidden under extra buttons. This is to make the website more accessible and user friendly but adding white space it is less likely to cause information overload for those with disabilities.
3. Security vs ease of use
   a. Security during the login process has been priorities over ease of use as MyUEA must remain secure. The use of Microsoft Login can be confusing for some users as it takes them to a separate website however alternative options could not be considered due to much greater security risk.
4. Heaviness of the site vs load times
   a. MyUEA has a large use of pictures which can take its toll on load times. However, these have all been compressed to be as small as possible. Endless scroll has not been used on pages such as the event page to help users load and use the pages as quickly as possible. Only loading more if required.

9. **Most significant design issues**

One of the key factors in our redevelopment was the movement of the notices page to a much more prominent position on the dashboard (homepage) of the website. This passed though low-fi testing easily with approval on the idea. However, when High-Fi testing was done and a realistic amount of text was added, the amount of text became overwhelming and flooded the homepage. It also pushed other items out of the standard 'scroll free zone'. This was also an issue with regards to accessibility as it would mean the notices were read out in full before the items below it. This would hold up the ability for a blind user to navigate the website quickly and with ease.

It was next experimented with just using the title of the notice. However, this drastically reduced the usefulness of the homepage addition as the information given was so small. Therefore, a balanced compromise was reached with notices being given a short description. The notices tab was also moved to the left-hand side of the screen. This means it would be read out last

if a user was using text to speech software and therefore reduce the chance of holding up their navigation to another part of the site.

10. Testing of Low-Fi designs

To ensure our Low-Fi designs really are successful in solving the issues raised in our think-aloud and personas, we asked the users that conducted the pervious think-aloud to evaluate these designs.

The feedback received was overall positive with 2 outstanding criticisms that have now been changed and updated on the low-fi diagrams. A button to see older news that the most recent stories that appear on the dashboard as on some days news updates fast and a story might be missed. Another user questioned the placement of mental health on the Wellbeing page and said that this was still hard for them to find. As mental health is such an important factor especially during the COVID-19 pandemic. A new button has been added to highlight the importance of this and improve the accessibly to these services.

The design stage will move transition into the development stage. However, the ideas from the: Scenarios, Think-Aloud and survey will be carried though to ensure all the design needs of the website are met. The think aloud users will be asked questions again on navigating and using the new website in the evaluation section.

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