

HCI CW1 Group Report

Group 87

Course Chosen: Human Computer Interaction

1 Personas

Persona 1 (Cameron), and Persona 5 (Francis)

2 Link to the mockup

[Live prototype of Figma mockup](#)

Raw link if hyperlink doesnt work :

<https://www.figma.com/proto/gnzwCIqXEPhYIDTeVHzR8D/HCI-Coursework-1?node-id=1%3A2&scaling=min-zoom>

3 Memo combination

DOCUMENT FORMATS

documents can be a variety of formats, uploads should only be PDFs since they are very portable?

can the upload format for lecture materials etc be restricted? to pdf?

* "I know the coursework document is here somewhere, I found it last night, but I cannot find it now"
* Learn allows for lots of layers of nesting which can cause navigational difficulties if used poorly.

A tab could be added for Related Events to the course.

"Could have an index of sorts."

Different courseworks could be separated more clearly.

Lost of folders, make pages easier to navigate

Categorisation and compartmentalisation are important, you don't want all the content just spewed on one page but you don't want the other extreme either

* Some courses have all content on the "Course Materials" page, some have it on "Assessment", and some have it on "Course Information"
* Locating course content is difficult as courses are inconsistent with how they store information

"Computing in the Classroom: Course Materials is divided by week which makes it easy to find all the information. Live class and tutorial recordings are clearly labelled as their respective tabs."

"Should only have features we need or should all be in the same place instead of being many buttons with no description"

could the visual design/layout of learn be made so rigid and formulaic that COCs can't put things in places other than where they are destined to be put? e.g. they are less able to choose to put tutorial materials under Course Materials or under a Tutorials page, because there is an existing page with unchangeable title and content that makes it painfully clear tutorials should go there. (this may be out of scope cause it's more to do with the CO side of things)

folder system as a way of organisation on each course page? one for materials, which under that has a folder for each week

a concise but information rich timetable that shows weeks, lectures, tutorials, assignments, and that links to all of those things. (like CARd)

LOGIN AND AUTHENTICATION

I tried to access a piece of course content but I was not logged in. I was not aware that I was not logged in.
I usually assume I'm logged in even when I'm not. It should be easier to tell if I'm logged in.

Everyone complains about logging in and much more awkward it is, is this in the scope of our design?

WEBSITE NAVIGATION

PLATFORM DIFFERENCES

* "I don't understand the difference between MyEd and Learn"
* Need to make clear differentiation between the different online services that the University provides

some content is difficult or impossible to host on learn. how to get around this without splintering content across too many different platforms? or at least make the navigation clearer, easier, and more consistent?

can the line between blackboard and learn be more clear?

I have to go to a separate website to access the coursework planner.

* "I find it quicker to unpack my laptop from my bag, open it, restore from sleep, open browser and go to Learn than try and go to Learn on my smartphone"
* The Learn mobile website is sub-optimal.
* The hide-able left bar is confusing, laggy and **not touch-optimised**.

remove any and all redundancy!
if there are multiple places to find the same information, or multiple ways to get to the same page/information, it's a messy design.

* "When I scroll down, I lose access to the course materials, assessments, etc..."
* The learn sidebar is not sticky - it scrolls with the page so if the page is long you get a completely blank sidebar when scrolling down.

People don't seem to access learn with phones, this is either bc the system is fundamentally unsuited for mobile devices or bc the current UX on phones is bad

* The Learn Foundations project identified that the majority of Learn usage is for only a few things
* But they also identified that there are many niche things that users expect learn to be able to do
* Therefore having a "Search" feature is fairly necessary to allow the UI to present only the most common actions directly, and let them search for less common actions

the dropdown list accessed from the sidebar often misses out enrolled courses, and shows courses from years ago

* "Some of my courses don't have assessments on Learn"
* The learn sidebar gives full control to the course organiser about which "sections" they want displayed, which is confusing.

Better support for range of devices and browsers (more responsive design)

the learn app could be more focused on allowing quick and easy checking of information + finding tutorial/lab materials, instead of trying to provide the full functionality of learn like submitting coursework.

"I don't understand why I'm enrolled in the same courses again this year".
* Learn is showing old courses without marking them as old
* Accessing old content is only rarely useful
* Old courses sometimes appear above old courses because courses are listed alphabetically

"They [the course secretary] haven't uploaded the lecture times"
* Lecture information was listed in the "Course Information" section, not "Live Classroom", which was blank
* Lectures were actually held through MS Teams, not BB Collaborate
* Nothing was in Live Classroom, and it was subsequently removed by the Course Secretary
* It should never have been shown in the first place.

"Sidebar does not follow the page."

"Introduction page could have links going to other pages."

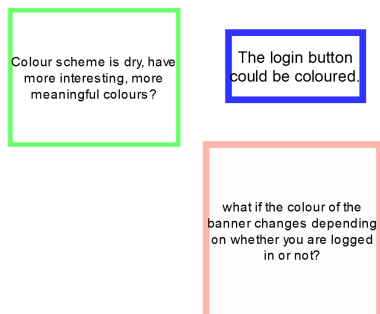
"Fewer tabs = better"

"Sidebar is cumbersome."

PERSONAL TIME MANAGEMENT



AESTHETICS & VISUAL DESIGN



SUBMISSION

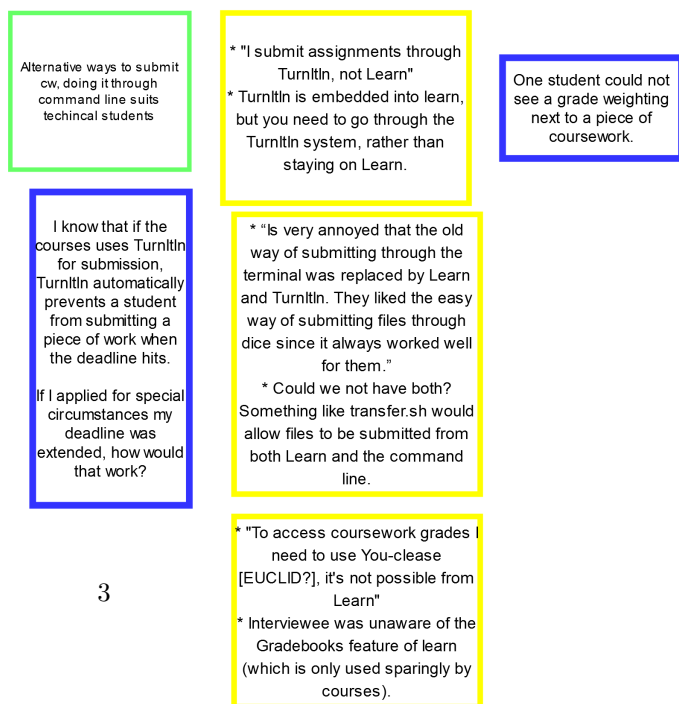
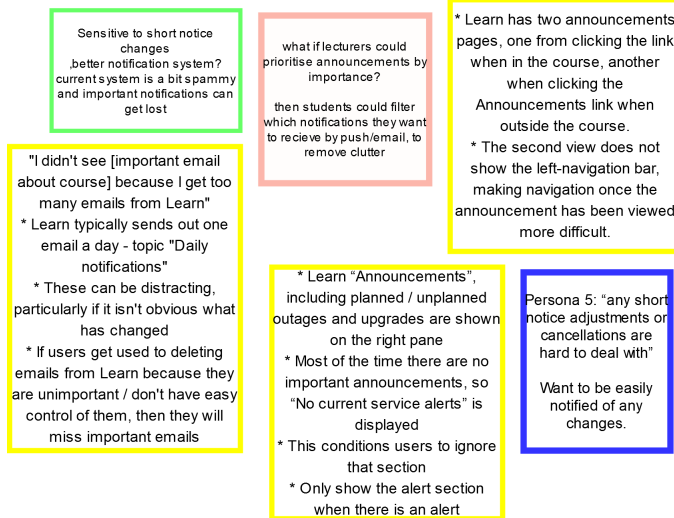
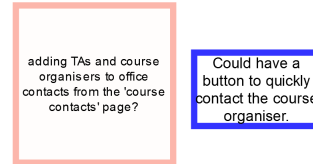


Figure 2: Memos (page 2/3)

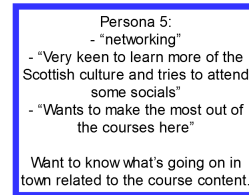
NOTIFICATIONS



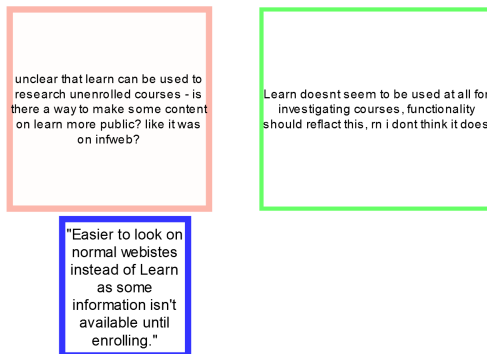
COURSE CONTACTS



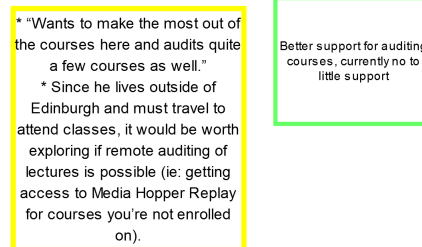
SOCIAL



RESEARCHING UNENROLLED COURSES



COURSE AUDITING



CULTURAL DIFFERENCES

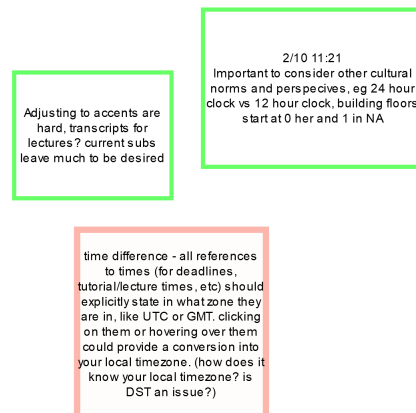


Figure 3: Memos (page 3/3)

3.1 Key observations

The key observations from the memo writing / combination process were the following:

1. Content organisation is poorly thought out and inconsistent between courses.
2. The navigation system offered by Learn does not allow easy and direct navigation to sections and content.
3. Students consider personal time management to be a key requirement for a Virtual Learning Environment (VLE), however Learn does not offer an integrated or consistent approach to this.
4. Students perceive the notification / announcements system offered by Learn to be inflexible and consequently the value of such an announcements system is diminished.
5. The method to ‘handle’ coursework (accessing details such as deadlines, submitting, and viewing grades) is scattered, and inconsistent between courses.

3.2 Problem definition

We argue that content organisation and website navigation are tightly related to one another: effortless navigation follows from clear and understandable content organisation. This is because well-organised content will intuitively guide the user to what they want to find, and badly-organised content will essentially hide what they are looking for. Good time management is only possible if the product used to manage time is easy to pick up, and allows the user to focus on tasks instead of how they interact with the interface. Thus, effective time management also follows from good content organisation and navigation.

However, Learn has issues in all of these areas. Content layout is not consistent across courses, meaning students must spend unnecessary time familiarising themselves with each new course, and switching mental contexts when they look at different courses. In addition, it is common for information on one topic to be split up across different areas in the course page, meaning the student may miss out on essential information because they don’t realise there is more specialised information on the same topic somewhere else. This is frustrating for students because they want to access content quickly, and be sure of the fact that they are seeing everything required. The landing page for all courses on Learn contains information that is useful for someone new to the course, but gets in the way after the first week or two of the semester. Learn currently does not enforce coursework information, specification, submission and grades to be in one single place all together. Learn also has a rather hidden calendar feature, but it is not integrated with any other university calendar and as such is mostly empty.

4 Design

4.1 Design Requirements

The following Design Requirements were defined by the provided *Learn Brief* and therefore must be adhered to:

1. The design allows users to view course summary information.
2. The design allows users to view a schedule of course activities.
3. The design allows users to view coursework descriptions and associated files.
4. The design allows the submission of coursework.
5. The design contains a grade book where a user's marks can be viewed.

The following Design Requirements were defined based upon our memos:

6. The design allows users to reliably track deadlines, such as for assessments.
7. The design allows users to quickly navigate to desired course materials.
8. The design enforces a consistent experience, including across different pages in the same course, and across different courses.
9. The design allows users to quickly find specific content.
10. The user can immediately determine which content they have engaged with, and which content they have not.

4.2 Design Reasoning (50% marks)

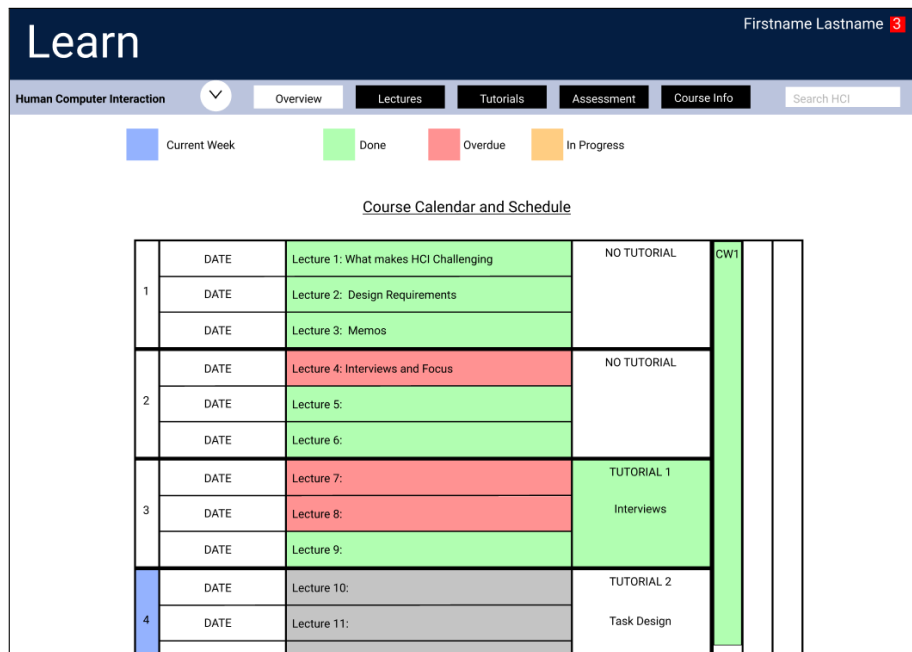
4.2.1 Design Reasoning for all pages

The top navigation bar is fixed when scrolling, giving users quick access to other sections of course content no matter where on the page content they are. Additionally, the navigation bar informs users of the section of the course they are currently viewing, by highlighting that button in a different colour. This improved navigation system fulfils Design Requirement 7. This is in contrast with Learn's current sidebar, which scrolls away as the user scrolls down a page and requires the user to determine which section they are on.

Each page in the system has a human-readable URL that is permanent. For example, the URL to the *Assessments* page could be learn.ed.ac.uk/course/hci2020/assessments. Human-readable, permanent URLs allow for easy bookmarking and sharing of specific pieces of course content. This fulfils Design Requirements 7 and 9.

Not every Design Requirement is reflected in the three pages selected; they are fulfilled in other aspects of the design.

4.2.2 Design Reasoning for the Overview Page



Week	DATE	Lecture Title	Tutorial
1	DATE	Lecture 1: What makes HCI Challenging	NO TUTORIAL
	DATE	Lecture 2: Design Requirements	NO TUTORIAL
	DATE	Lecture 3: Memos	NO TUTORIAL
2	DATE	Lecture 4: Interviews and Focus	NO TUTORIAL
	DATE	Lecture 5:	NO TUTORIAL
	DATE	Lecture 6:	NO TUTORIAL
3	DATE	Lecture 7:	TUTORIAL 1
	DATE	Lecture 8:	Interviews
	DATE	Lecture 9:	Interviews
4	DATE	Lecture 10:	TUTORIAL 2
	DATE	Lecture 11:	Task Design

Figure 4: The 'Overview' Page
Suggested URL: learn.ed.ac.uk/course/hci2020/

Figure 4 shows our new landing page for the course. It shows them a simul-

taneously compact and information-rich schedule which links to all listed course materials, inspired by the one used in the course *Computer Architecture and Design*. This addresses the problem of lengthy and convoluted navigation to desired course materials. Instead of the landing page showing something that is only useful in the opening weeks of the course, such as the introductory information about the course, it shows the user what they mostly use Learn for - accessing course materials.

Personas 1 and 5 both prioritise time management in their needs, as the former has additional responsibilities at the university and the latter has many commitments at home. They are both supported in that they spend less time looking for materials, and coursework deadlines can be compactly viewed and planned for, facilitating more effective time management. This fulfils Design Requirement 2 since it is a schedule of course activities; Design Requirement 7 since course materials are only one click away; and Design Requirement 10 since there are colours indicating what content has been engaged with and what hasn't.

The schedule is auto-generated from the course content. For example, all lectures added to the *Lectures* page are automatically displayed on the schedule on the Overview page. This ensures consistency between the schedule and the course content, meeting Design Requirement 8.

4.2.3 Design Reasoning for the Lectures Page

Figure 5 shows our page dedicated to lectures. The coloured bars on the left of each lecture card make it easy to gauge progress at a glance, and matches the colours used on the *Overview* page for consistency (Design Requirement 8). This helps both Personas with their time management needs, especially Persona 5 who arrived late to the course and thus needs to know at a glance which content they need to catch up with (Design Requirement 6).

The user can navigate the *Lectures* page either by scrolling down through the lecture 'cards', or by jumping to a specific lecture card by selecting it from the list on the left. The list entry corresponding to each lecture card repeats the card's colour coding, which gives a wider overview of overall progress. This enables quick navigation to recent and missed content (Design Requirement 7).

The design of the *Lectures* page - with items being represented by a vertical list of 'cards', a navigation menu in the top-left, and colours to indicate the status of items - was used as template for the *Tutorials* and *Assessment* pages, resulting in a consistent experience across the course (Design Requirement 8).

4.2.4 Design Reasoning for the Search Page

Figure 6 shows our search page, which is displayed after the user submits a search query.

The search function fulfils Design Requirement 9 since it allows the user to find content containing specific terms via search. This will search through

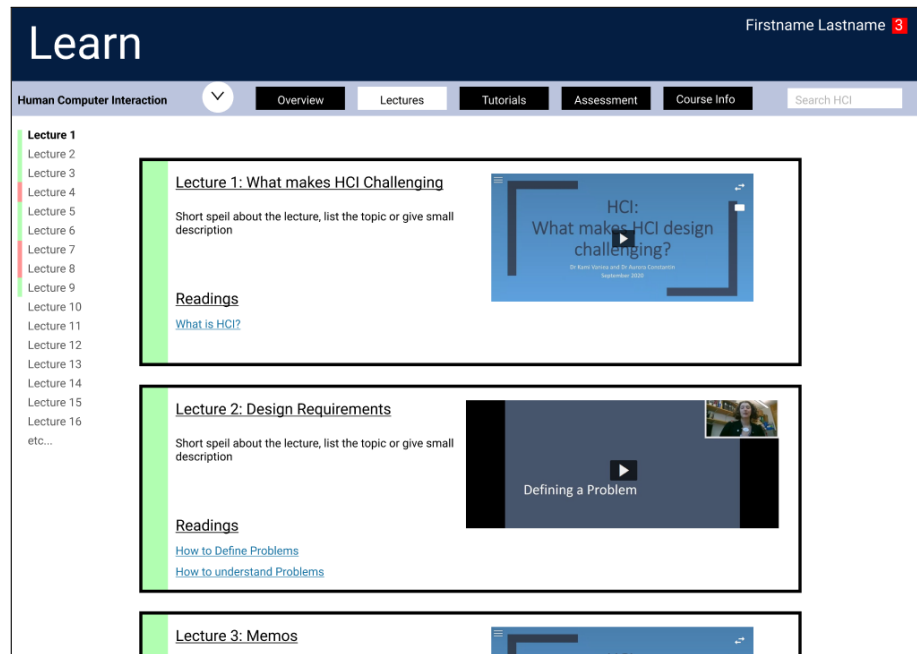


Figure 5: The 'Lectures' Page
Suggested URL: learn.ed.ac.uk/course/hci2020/lectures

uploaded materials such as PDFs as well, not just text contained on the web page (note the second search result in Figure 6 is a PDF).

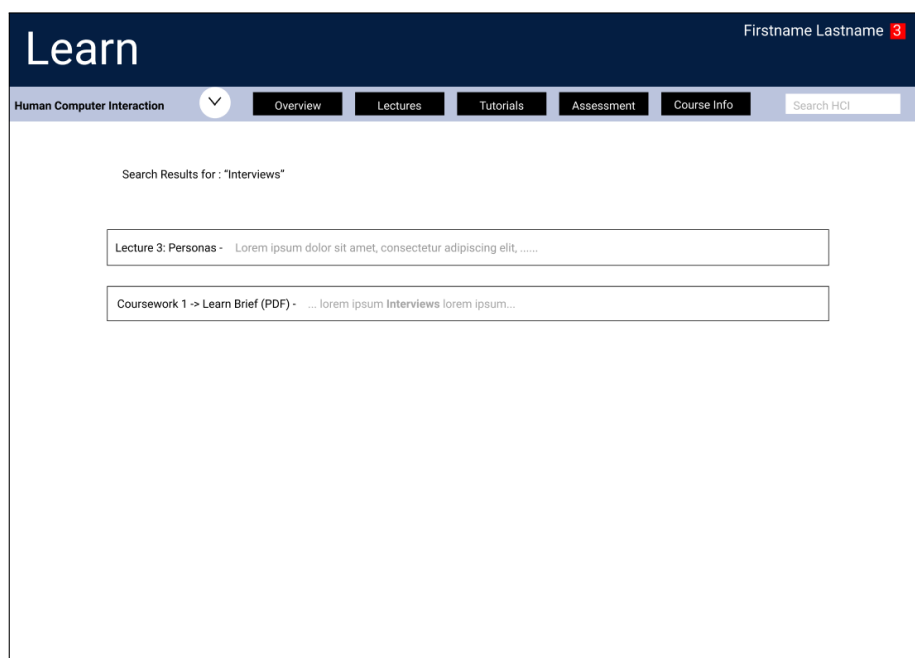


Figure 6: The 'Search' Page

Suggested URL:

learn.ed.ac.uk/course/hci2020/search?query=Interviews