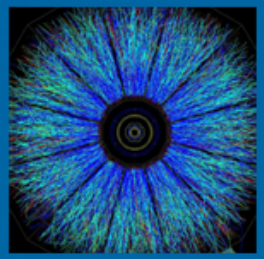
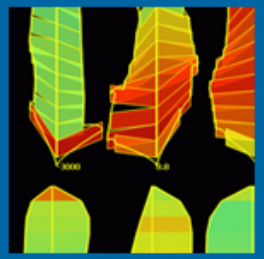
Swansea University
Prifysgol Abertawe

CSC349 User Experience

Introduction to User Experience 3: Where UX starts and Related Principles

Lecture Summary

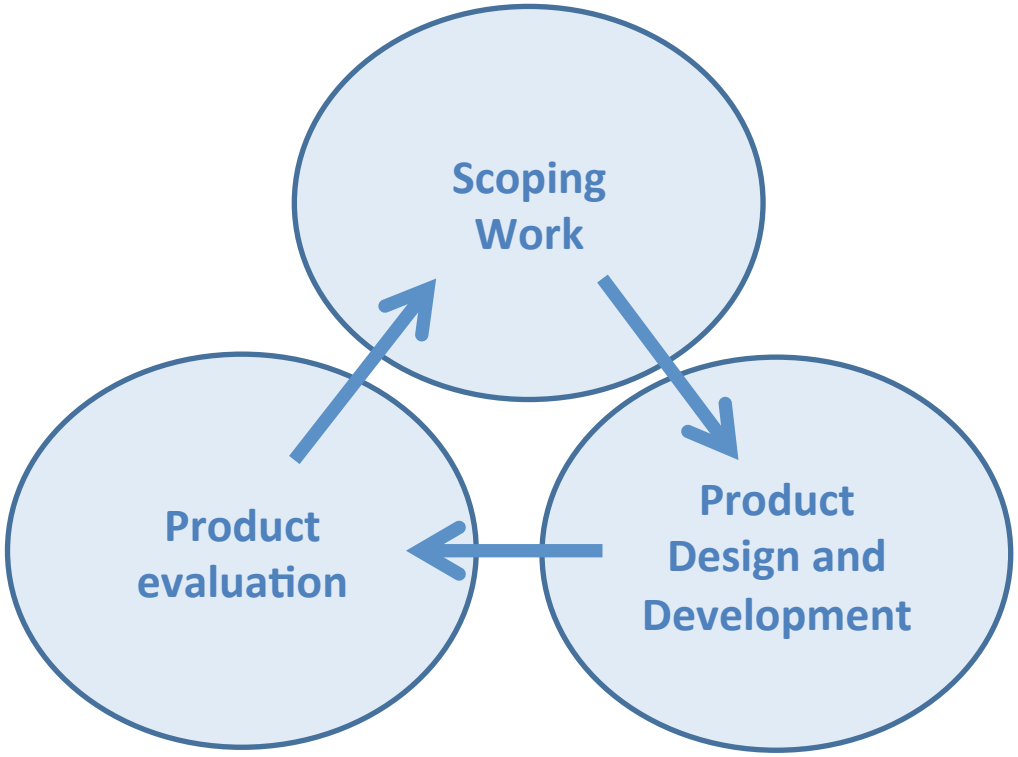
Discuss the stages that a UX designer can work within and the benefits of being in them

Understand why being **User Centred** is such an important concept in UX design

Look at **Usability** as a core concept in UX

Understand the theory of **"sketching**" and why it matters

Reminder - Design stages



When does (should?) a UX designer start working on a new product

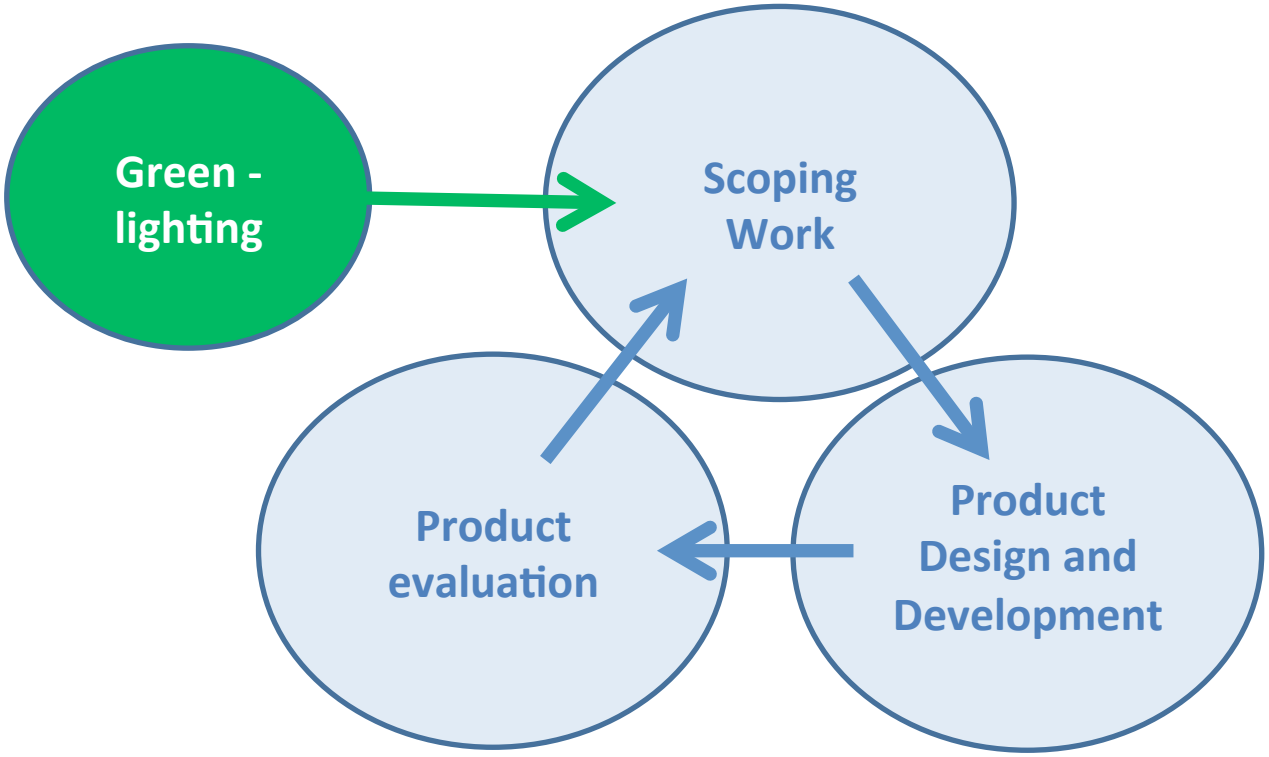
The ideal point to start considering UX

When we create the concepts of a new product, we should consider it's UX

- New products can be created because they improve on existing design's UX
- Focusing on UX can lead to entirely new ideas or concepts for products
- The process of deciding what to design and develop is often referred to as **green-lighting**

Even if they aren't going to focus on a products UX, we can avoid certain pitfalls if we think about the UX at the start

Reminder - Design stages



Parts Needed

2x

2x

View Parts List

34

68 Total Steps

Insert the 3 Porcelain Cast Iron Cooking Grates into the slots in the Cookbox and then place the 2 Porcelain Enameled Flavorizer Bars into the Cookbox.

Music
Playlists
Artists
Albums
Songs
Podcasts
Genres
Composers
Audiobooks
MENU

iPod
Playlists
Browse
Extras
Settings
About
menu

The real point people start considering UX

Many companies models do not include UX in the concept creation process and instead only start to consider it as the product nears release

- This happens because people confuse UX design and Interaction Design

In the real world, sometimes this doesn't matter because you can fix it

- These **Fail-fast** models emphasise small, repeated releases rather than shipping a final product

Sometimes it matters a lot because the poor UX is inherent to the product and we can't change it

Cancel
Add Friend
Add Friend
Add Friend

After the product is built - “Stealing” UX

Most field already have people working in them developing great ideas

You can “borrow” those ideas!

More seriously – evaluating the rivals to your product is a vital part of the UX design process

- Keep in mind throughout the course, almost all the techniques we outline don’t need to be used on your own products

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www.sockshop.co.uk

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The **User-centred** design principle

The **User-centred principle is** that the most important person to consider when designing a new technology is the person who will actually use it

It seems intuitively obvious but….

- We don't know what they think until we give them the technology
- That person doesn't usually pay for the design of the technology so has little influence over the design process
- We can make the mistake of thinking that we *are* the end user

The principle arose out of fundamental HCI (Fitts law, ergonomics, GUIs) in response to it's shortcomings in this area

User-centred vs. not user centred – what do you see

User-centred vs. not user centred – what do you see

ance Register Summary

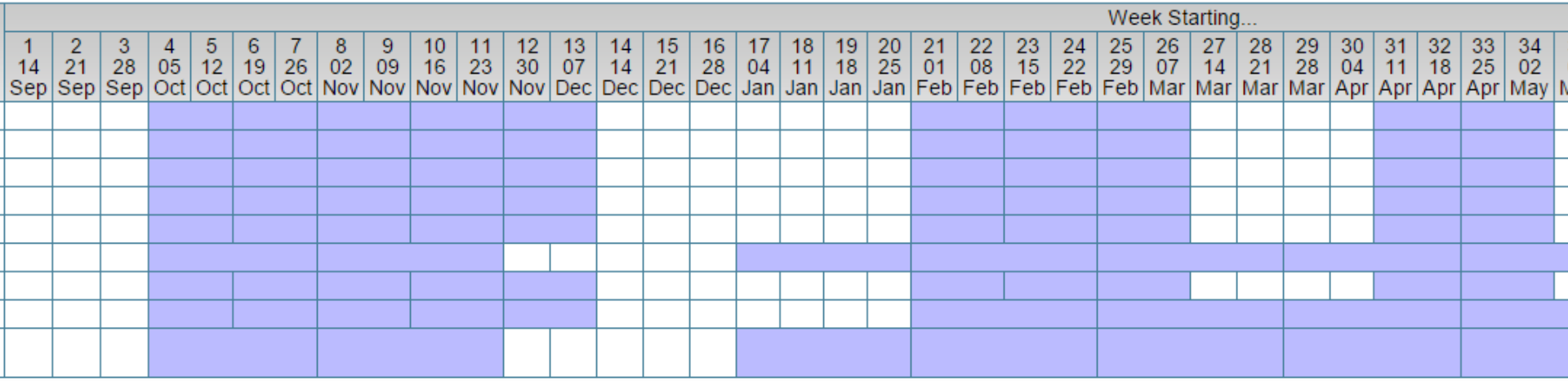
e	Register Period		Engagement	Status	Edit Register	Email List	Send Email	Upload Attendanc
	From	To						
1	01/02/2016	13/02/2016	1st Tutor	You still have a register to complete for 23 out of 23 of your students. You have until Sat 13/02/2016 to do this.	Edit Register	View Email List	Send Email	Upload
3	01/02/2016	13/02/2016	1st Tutor	You still have a register to complete for 4 out of 4 of your students. You have until Sat 13/02/2016 to do this.	Edit Register	View Email List	Send Email	Upload
arch	01/02/2016	27/02/2016	1st Tutor	You still have a register to complete for 1 out of 1 of your students. You have until Sat 27/02/2016 to do this.	Edit Register	View Email List	Send Email	Upload

ete an Ad-Hoc Register

lumber [ ] Create Ad-Hoc Register

l Calendar

ttendance is monitored via a Student's Tutor/Supervisor
ttendance is monitored via a Student's 2nd Tutor/Supervisor
ttendance is monitored via a Student's 1st or 2nd Tutor/Supervisor
ttendance is monitored via the Coordinator of one or more Modules
ttendance is monitored via one or more Seminars
ttendance is monitored via a named individual
ttendance is monitored via an external system and imported



Usability and User Experience

Usability is the ease of use and learnability of a human-made object

We've already touched on why Usability and UX are different to one another – remember the teapot!

Typically when evaluating Usability, we use heuristics

- Heuristics are broad categories or concepts that allow analysis of an otherwise difficult or intuitive concept

Usability and User Experience

Learnability – how easily can you discover the features of the interface?

Efficiency – how long does it take to perform basic tasks?

Memorability – how easily can you remember where to find the different functions of a device?

ERor recovery – how many mistakes does the interface cause and after making a mistake, how easily can you catch and correct it?

Satisfaction – how pleasant is the design to use?

Look at the LEMERS heuristics and, for each category, describe a “good” UX design that would be evaluated poorly against that heuristic

“Sketching” for design

“Sketching” doesn’t just mean literal sketching with a pencil on paper

- Although this activity does typify sketching

The activity is critical to any creative endeavour as it allows the generation of many ideas in a short space of time

- All of the design activities mentioned last week include their own forms of sketching in this sense

Volume of ideas is the critical part of design

- The best way to have a good idea is to have lots of ideas!

Sketching – key qualities

Quick – must be able to create them rapidly

Timely – need to be produced on demand

Inexpensive – cost cannot inhibit exploration

Disposable – value comes form the fact you can throw it away

Plentiful – sketches need to be surrounded by other sketches

Clear vocabulary – stylistic conventions that suggest temporality

Sketching criteria

Gestural – sketches are not precise, they are fluid and open to change

Minimal detail – sketches only show what they have to show

Appropriate refinements – sketches should show that you aren't certain about an idea, they become higher fidelity as you become more certain

Suggest and explore – sketches are a way to open up conversation by getting people to say "what about this?"

Ambiguous – people interpret sketches when they see them

Summary

Discussed early, mid and post design engagement from the UX professional and their relative strengths and weaknesses

Understand why being **User Centred** (keeping the user in mind) is an important concept in UX design and why it's harder to do than you might think!

Usability is measured through heuristics like LEMERS and is a core concept in UX but not all of UX

Understand that **"sketching**" is any design approach that allows rapid generation of many ideas

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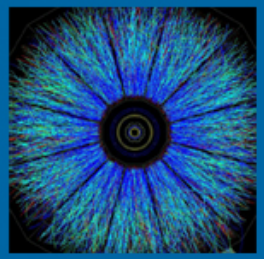
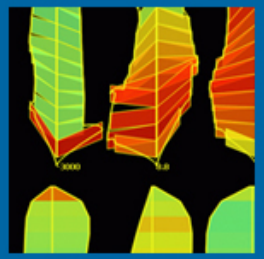
Scoping out the Design Space and Stakeholder Engagement

Lecture Summary

The first thing to do in a full design process is to understand the area you are working in by using scoping techniques

We can employ a wide range of techniques but the most critical step as these start is **stakeholder identification**

Once we know who we need to talk to, we can use interviews, focus groups, surveys, etc. but we still have to **recruit** people

There are certain **laws** we have to start to be aware of at this stage

Stakeholders and why they mater

It's important to recognise who has a stake in your system from the outset of the design process

At a certain point you may need to acknowledge that you might not be able to engage with all of the stakeholders on your list and you need to start prioritising them

- What principle we mentioned recently might be important when doing this?

A large part of the scoping process is chasing down the links that you need to follow to work out who all these people are, the process is called **stakeholder identification**

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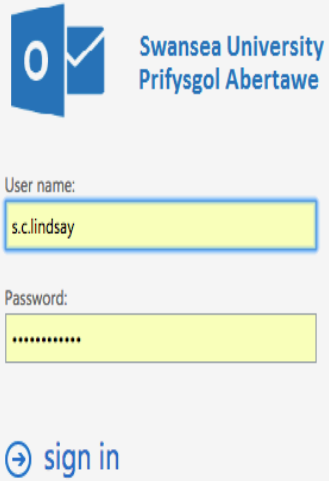


Who are the stakeholders in this system?

Stakeholders in University WebMail

Lecturers
Students
Receptionists
IT support
….and IT support
Managerial staff
…and Managerial Staff
Finance personnel
….and Finance personnel
Collaborators
Visiting members of staff

Programmer

What my friends think I do

What my mom thinks I do

What society thinks I do

What my boss thinks I do

What I think I do

What I actually do

Stage 1: Avoiding the “by-the-book” fallacy

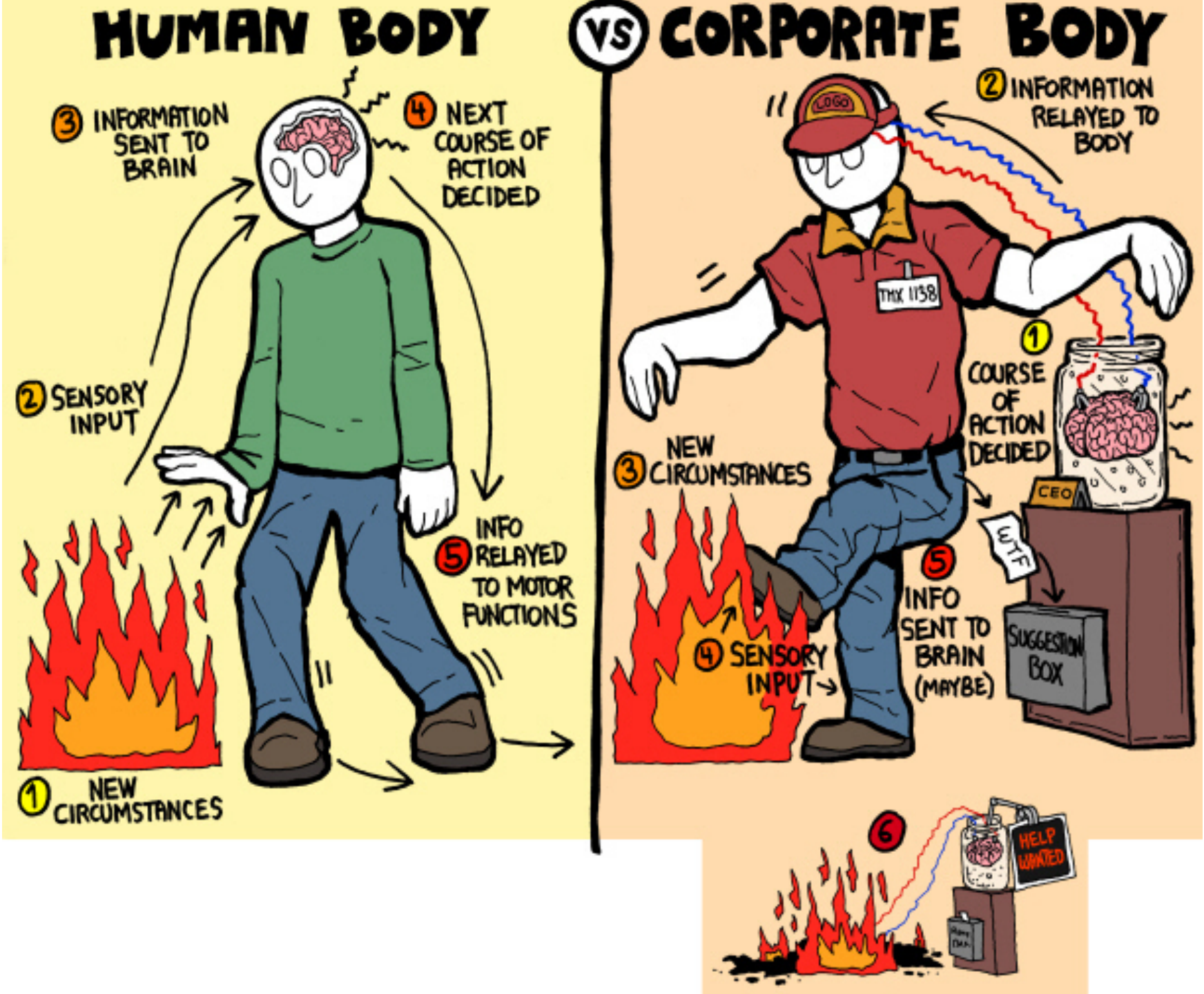
“Why can’t we just look at the requirements we are given to ID stakeholders?”

Assuming that something works the way that it is written down as working is *a really bad idea*

- To see why. next time you see a car approaching red-lights fast, try stepping in front of it because the highway code says it has to stop

Whole research disciplines are built around avoiding it (see: Ethnography)

The **context-of-use makes** people change how they work and often systems rely on the **tacit knowledge** of the people working within them to function


HUMAN BODY
VS
CORPORATE BODY
1 NEW CIRCUMSTANCES
2 SENSORY INPUT
3 INFORMATION SENT TO BRAIN
4 NEXT COURSE OF ACTION DECIDED
5 INFO RELAYED TO MOTOR FUNCTIONS
1 NEW CIRCUMSTANCES
2 INFORMATION RELAYED TO BODY
3 NEW CIRCUMSTANCES
4 SENSORY INPUT
5 INFO SENT TO BRAIN (MAYBE)
1 COURSE OF ACTION DECIDED
LOGO
THX 1138
CEO
WTF
SUGGESTION BOX
6
HELP WANTED

Stage 2: Initial Stakeholder Identification

Identify stakeholders as best you can by answering key-questions:

"Who will be the users of this system?"

- Can break down along multiple lines and classes

"Who will interact with this system?"

- Maybe not using a system directly but still interacting with it

"Who will support, fix and maintain this system?"

- Up-time often is a key part of good UX delivery

"Who controls this system?"

- Where is the money coming from? Who decides on the rules

Stage 3: Contextual Inquiry to ID stakeholders

Contextual inquiry is the process of going into the context-of-use for your software and asking people questions to better understand it. When doing this make sure that you:

- Consider the *full cycle* of work in your target area
- Consider the full *software lifecycle* when identifying stakeholders

Stakeholders are also capable of identifying other stakeholders (the concept of “who a system impacts on” is usually not to hard to explain)

- Beware though, they are not to be trusted if ruling people out!

Power structures and Stakeholders

The sorts of engagement that you will have with stakeholders varies depending on the nature of their stake in the system

Thinking back to the webmail example, would you expect the finance team who are costing out the system's re-design to have the same type of investment as the end users?

Who has more power in this situation?

How does that fit with the important principle we mentioned earlier?

We need people!

Working with stakeholders in modern UX design process is practically a given (whether in design of a product, evaluation or both)

- You need to show ideas to your end-users and gather their feedback because of the user-centred principle
- The people who control the system (or money) will make sure they have input into it's design
- But what about the fringe users? Who's going to look out for them and make sure they have a say?

This means you need to recruit people to take part in the design process but that's not always straightforward…..

Imagine you are the UX Researcher on the team that is redesigning the University email and calendar sharing service

How would you approach recruiting people and what might go wrong….?

Recruitment strategies

Mass messaging (email, letter, phone, posters)

- Pros – easy to ID people, cheap to do, quick
- Con's – easy to frustrate or annoy people, low success rates so need to target large populations, sometimes long turnaround

Targeted recruitment (employee lists, discussion with managers)

- Pros – selects the most relevant participants, high success rate
- Con's – takes a long time, need to identify who to target, vulnerable to selection bias

Recruitment strategies

"Hallway" user studies (for the general user)

- Pro's – lightweight, fast feedback,
- Con's – not suitable for specialist stakeholders

"Snowballing" recruitment (ask friends, then friends of friends, then….)

- Pro's – works well recruiting specialist users, relatively lightweight
- Con's – selection bias, not a representative sample

Online studies (answer question online, f.e. survey monkey)

- Pro's – lightweight, extremely fast feedback
- Con's – not suitable for specialist stakeholders, initial outlay setting up

What UK law is relevant when trying to conduct any sort of user engagement work?

Legal issues when working with people

The UK **Data Protection Act** restricts what you can and cannot do when using people's data

The act depends on whether or not you are storing **personal data**

- If you are collecting contact details you almost certainly are doing this

If you are handling data you need to ensure you are registered with the Information Commissioners Office

- The fines associated with getting this wrong are no joke!

Personal data

Personal data *means data which relate to a living individual who can be identified:*

(a) from those data or;

(b) from those data and other information which is in the possession of, or is likely to come into the possession of, the data controller

And includes any expression of opinion about the individual and any indication of the intentions of the data controller or any other person in respect of the individual.

-From the Information Commissioners Office

Data protection principles

1. Personal data shall be processed fairly and lawfully and, in particular, shall not be processed unless –

(a) at least one of the conditions in Schedule 2 is met, and
(b) in the case of sensitive personal data, at least one of the conditions in Schedule 3 is also met.

2. Personal data shall be obtained only for one or more specified and lawful purposes, and shall not be further processed in any manner incompatible with that purpose or those purposes.

Data protection principles

3. Personal data shall be adequate, relevant and not excessive in relation to the purpose or purposes for which they are processed.

4. Personal data shall be accurate and, where necessary, kept up to date.

5. Personal data processed for any purpose or purposes shall not be kept for longer than is necessary for that purpose or those purposes.

6. Personal data shall be processed in accordance with the rights of data subjects under this Act.

Data protection rights under principle 6

- a right of access to a copy of the information comprised in their personal data
- a right to object to processing that is likely to cause or is causing damage or distress
- a right to prevent processing for direct marketing
- a right to object to decisions being taken by automated means
- a right in certain circumstances to have inaccurate personal data rectified, blocked, erased or destroyed
- a right to claim compensation for damages caused by a breach of the Act

Data protection principles

7. Appropriate technical and organisational measures shall be taken against unauthorised or unlawful processing of personal data and against accidental loss or destruction of, or damage to, personal data.

8. Personal data shall not be transferred to a country or territory outside the European Economic Area unless that country or territory ensures an adequate level of protection for the rights and freedoms of data subjects in relation to the processing of personal data.

Data protection challenges

Scenario 1: You decide that you want to run a study on a dieting app and have split people into two different groups, one you think might lose weight and one group you think are not going to be able to lose weight.

Scenario 2: You are working in a UX design consultancy currently advising a software development house on their work. You do several studies and the software development house wants to see the raw data from your work.

Summary

The first thing to do in a full design process is to understand the area you are working in by using scoping techniques

Stakeholder identification is critical but difficult and requires working with the stakeholders to ensure it is complete

Recruitment is a simple, pragmatic challenge that can take days or months

The **UK Data Protection Act** needs to be understood and followed when storing **personnel information**