



# COMP1710/6780

## Web Development and Design

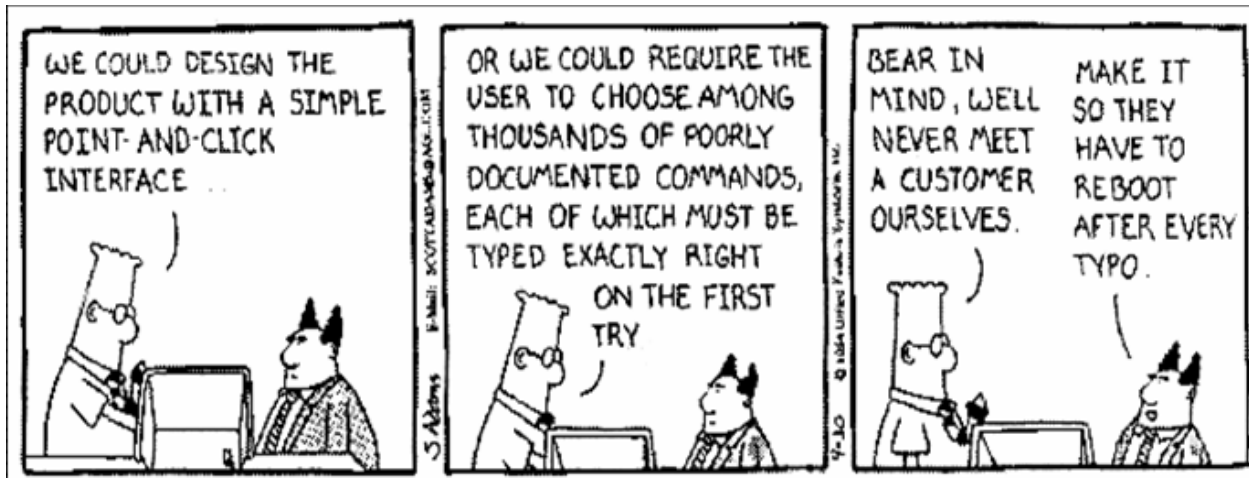
The Zoom link will be

via <https://anu.zoom.us/j/88435500888?pwd=WHJ4by8yUlhjYW9ra2h4bWlieEJmdz09>

Meeting ID: 884 3550 0888


Password: 895252

# Human-Computer Interaction





*But first, reminder about experiment bookings (SONA) and a review of what you need to do to get a good mark on your Assignment Pt1*

## SONA – Experiment selection platform



Australian  
National  
University





 Studies
 My Schedule/Credits
 My Profile Logout

Sabrina Caldwell (Participant)

Currently Viewing: All Studies

View studies with available timeslots on : Wednesday, 17 August 2022 GO

Available?	Study Information	Eligibility
 Timeslots Available	<b>Inner speech and the N400 brain response</b> (2 Credits) This project will use an electroencephalogram (EEG) to measure brain activity while participants produce inner speech – the silent production of words in one's mind.	
 Timeslots Available	<b>!(\$10 OR .75 CREDIT) Emotion and Attention In-Person Lab Study - warning: contains graphic images</b> (0.75 Credits) Warning: Study description contains graphic language, and study itself contains graphic images. Please do NOT continue reading if you may be triggered	18-40 years old; born and raised in western country; english first language; normal or corrected-to-normal vision (wearing glasses or contact lenses is fine); no diagnosis of ADD/ADHD, Autism, Schizophrenia.

<https://anupsych.sona-systems.com>



# Assignment Part 1 (10 marks)

WHEN ALL ELSE  
FAILS,  
READ  
THE  
INSTRUCTIONS

No matter how fancy your site is already, you won't get a good mark if you don't:

- ✓ include the assignment specification elements clearly described in Part 1 items 1.1 – 1.10
- ✓ have an index.html to enter your site
- ✓ have an assignment.html for your marker to find your elements
- ✓ submit it on time

You can do *great* if you just ***meet the brief !***

# Comp1710/6780 – Assignment Part 1

## Worth 1 mark

**From assignment.html Your *Me and My Passion***

Replace this line with your URL link to this element in your website. Notes: Provide any notes you may have about this element here.

**From Assignment Specification:**

Introduce yourself and/or your passion, interest or hobby etc. Write a mission statement or list of goals similar to the idea of a brief statement of the mission and list of goals in chapter 1 of the Unusually Useful Web Book. This section should probably take 200-400 words or so.

## What we will be looking for...

Introduction: We will be looking for a thorough, clear and succinct (not too rambling) summary. This would be worth 1 mark. A good but not entirely clear or thorough introduction is .75 mark, too verbose or too short or not a clear connection to your topic would be .50 mark, mostly irrelevant to the topic is .25.

# Comp1710/6780 – Assignment Part 1

## Worth 1 mark for CSS

### From assignment.html CSS

Replace this line with your URL link to this element in your website.

Notes: Provide any notes you may have about this element here.

### From Assignment Spec:

Create an external (separate) CSS file. Use at least 10 CSS rules. **Make sure your CSS includes comments that would be useful to someone taking over the maintenance of your site**, things like the purpose of each rule, exceptions to its use and the choice you made as to which selector you specified. If you create more than one CSS make sure they are deployed in a Cascading manner, i.e. there should be at least one default CSS that will be applied to all the pages in your site, with specialised CSS then being applied to specific pages of the web site.

## What we will be looking for...

Thorough and clear and well commented CSS with 10 or more rules will get 1 mark. Good CSS with commenting and 10 or more rules will get .75 mark, a range of faults will receive .50 marks, too few rules will normally receive .25. Please note that we have to use our judgement here a bit as sometimes we see one selector with 10 grouped rules, which isn't really meeting the intent of this element. We expect you to have at least 3-4 selectors with 1 or more rules each (that add up to 10 or more rules). It isn't hard at all to get up to 10 rules across a range of selectors, and we will look at that.

## Comp1710/6780 – Assignment Part 1

### Worth 1 mark

#### From assignment.html Site Map

Replace this line with your URL link to this element in your website.

Notes: Provide any notes you may have about this element here.

#### From Assignment Spec:

This page should clearly depict the organisation/structure of the web site, possibly using a table or links (or both) or an image map. *Make sure you update the site map as you expand your web site in Parts 2 and 3.*

### What we will be looking for...

A clear and easy to navigate site map will usually get a full mark. A good or somewhat less than good sitemap will usually receive .75 or .50 depending on the problems, and a difficult to follow sitemap may receive .25.

# Comp1710/6780 – Assignment Part 1

## Worth 1 mark

### From assignment.html Source Log

Replace this line with your URL link to this element in your website.

Notes: Provide any notes you may have about this element here.

### From Assignment Spec:

You will need to keep a log. A typical log describes the list of sources you used for your project and the modifications you applied to them. The origin of the source should be given in enough detail to ensure the marker can access the source whenever it is possible (URL, ISBN etc). *Make sure you update the source log as you expand your web site in Parts 2 and 3.*

### What we will be looking for...

A clear source log with complete information and easy to find sources (with links as appropriate) is usually given a full mark. As the source log becomes less complete and/or more difficult to follow, it receives less.



# Comp1710/6780 – Assignment Part 1

**Worth 1 mark**

**From assignment.html Feedback Form**

Replace this line with your URL link to this element in your website.

Notes: Provide any notes you may have about this element here.

**From Assignment Spec:**

Create a page which takes feedback from visitors to your site via a form.

**What we will be looking for:**

For a full mark, we'll be looking for a working feedback form that is easy to use and understand, has a few sensible fields, and has some CSS formatting. As the form becomes sparse or difficult to use, the marks decrease.

# Comp1710/6780 – Assignment Part 1

## Worth 1 mark

### Coherence

We will be looking some sense of flow and unbroken links in your site. This is only part 1 so your site is still young, but you should have some colour scheme, some similar usage of fonts, your subject should be obvious and your pages should work together.

### What we will be looking for:

This is where we judge how your website hangs together. We'll look for a well structured website about a clear subject for full marks. If your site is well structured but your subject needs better definition, or it is only reasonably coherent, or it is not coherent but more fragmented, you will get less of a mark. If you have a website at all, you will get .25 of a mark.

## Comp1710/6780 – Assignment Part 1

**Worth 1 mark**

### **Quality**

Even in a young site the elements can be visually appealing. We will be looking for appropriate colour schemes and font strategies, harmonious use of space, a few relevant and interesting images if appropriate for your site, etc..

### **What we will be looking for:**

Visually appealing, with a good amount of content and well-designed with excellent readability will be a full mark, and as the quality goes down from this there will be less of a mark.

## Comp1710/6780 – Assignment Part 1

**Worth 1 mark**

### **Coding**

We will be looking at your html and css coding. We want to see well structured, clear coding with appropriate use of indenting and especially good commenting.

### **What we will be looking for:**

You all know that we have emphasised the need to have well structured code with good comments and indents and white space. That is what we will be looking for, along with a good quantity of code having been written, for full marks.

## Comp1710/6780 – Assignment Part 1

**Worth 1 mark**

### **Creativity**

Although later (assignment part 3) we will be expecting to see good creativity in your website, even as a young site we expect to see some of the reason why you chose the subject you chose. We will look for your use of creativity in presenting the subject (so far) to us.

### **What we will be looking for:**

We will be looking to see that you have given your website some thought, and used your imagination and creativity to create some content that expresses your subject well and interestingly.

## Comp1710/6780 – Assignment Part 1

**Worth 1 mark**

### **Submission**

Just submitting your assignment part 1 is an important achievement. If you have submitted your assignment properly (ie we don't find only a zip file or just your student directory with no index.html) and it is on time you will get this full mark.

### **What we will be looking for:**

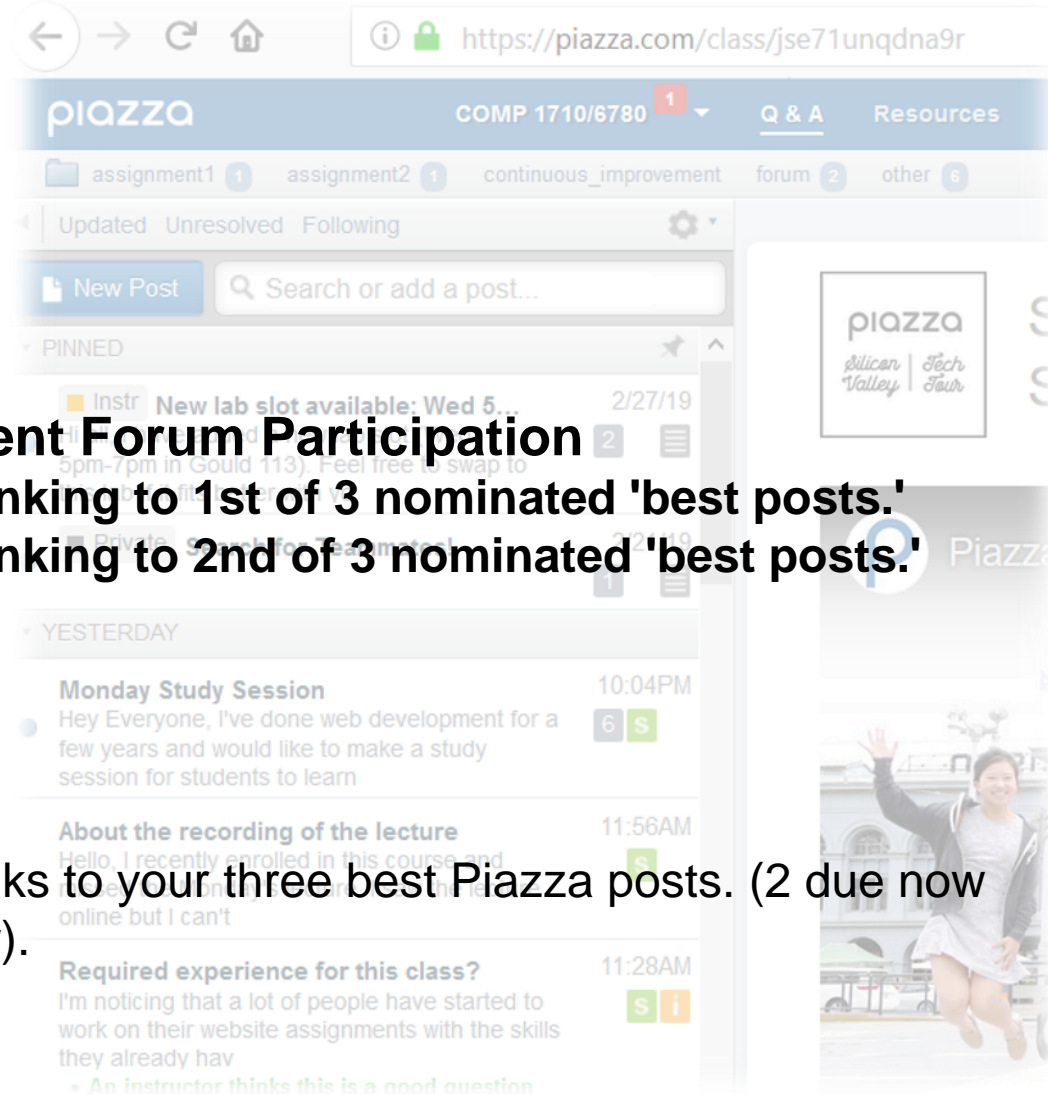
If your website is loaded correctly into your Partch space, with at least an index.html and an assignment.html, and the permissions are set properly so that we can see your files, then you'll get this mark.

**Worth 4 marks –  
2 posts with maximum  
of 2 marks each**

**From assignment.html    Student Forum Participation**  
**Replace this line with your URL linking to 1st of 3 nominated 'best posts.'**  
**Replace this line with your URL linking to 2nd of 3 nominated 'best posts.'**

**From Assignment Spec:**

Active Participation: Provide URL links to your three best Piazza posts. (2 due now and 1 due with Assignment Pt2 later).



# Human Computer Interaction

## ‘Computer’

- Large scale computing systems
- Tablets,
- PCs,
- Smart phone

## Interaction

- Mission: transactions, information searches
- Technique: interface devices (mouse, electronic pencil, fingerprint, hand gestures)
- Mental models...
- ... and much much more!

## Human

- Individuals
- Groups (In-person, virtual, hybrid)



# Human Computer Interaction

HCI focusses on:

- **People** as the overriding element of the HCI nexus
- Enabling tools and techniques
- Create efficient and safe interaction modes
- Understanding the factors that impact upon humans' use of technologies

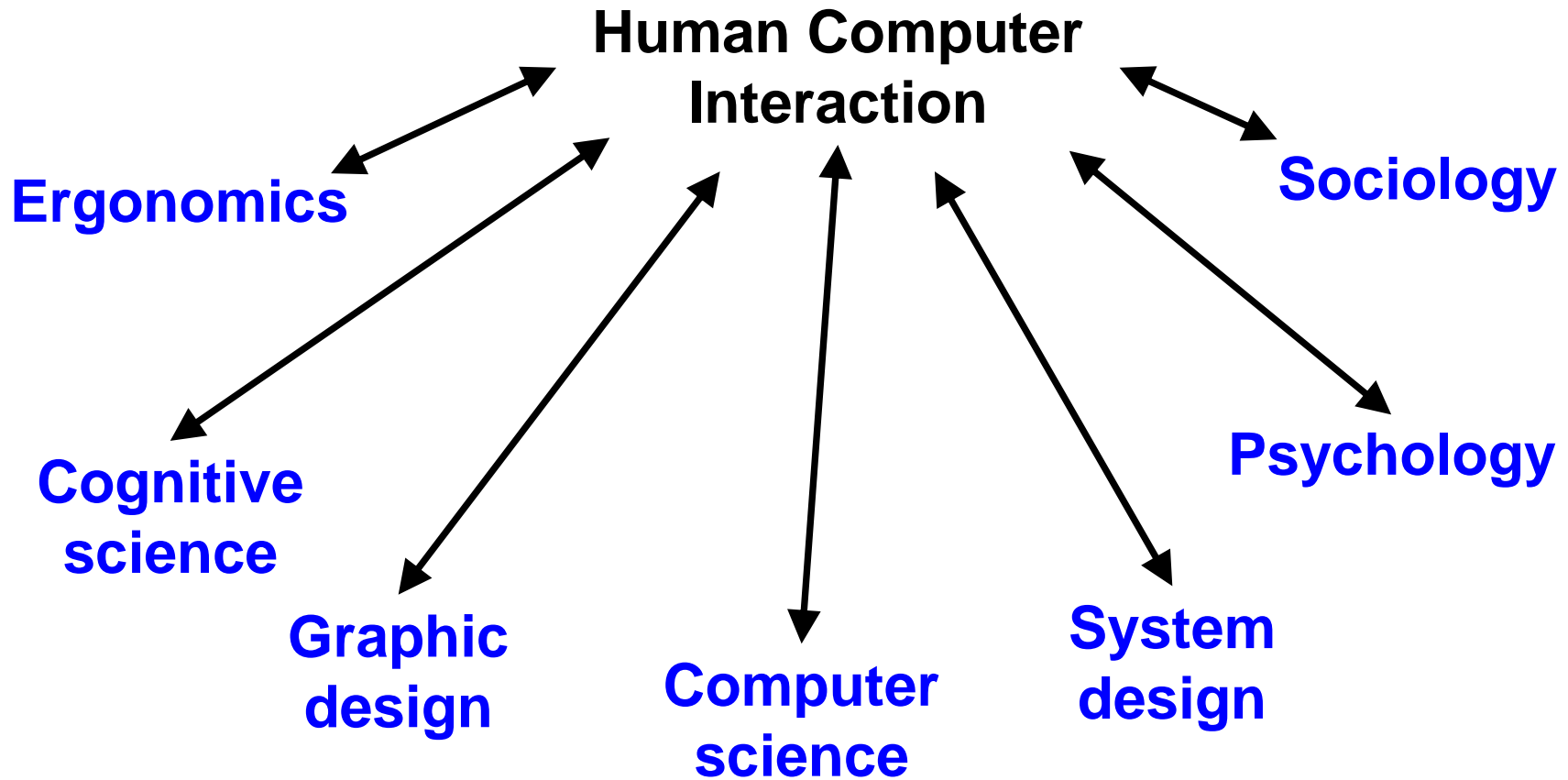
## Human Computer Interaction

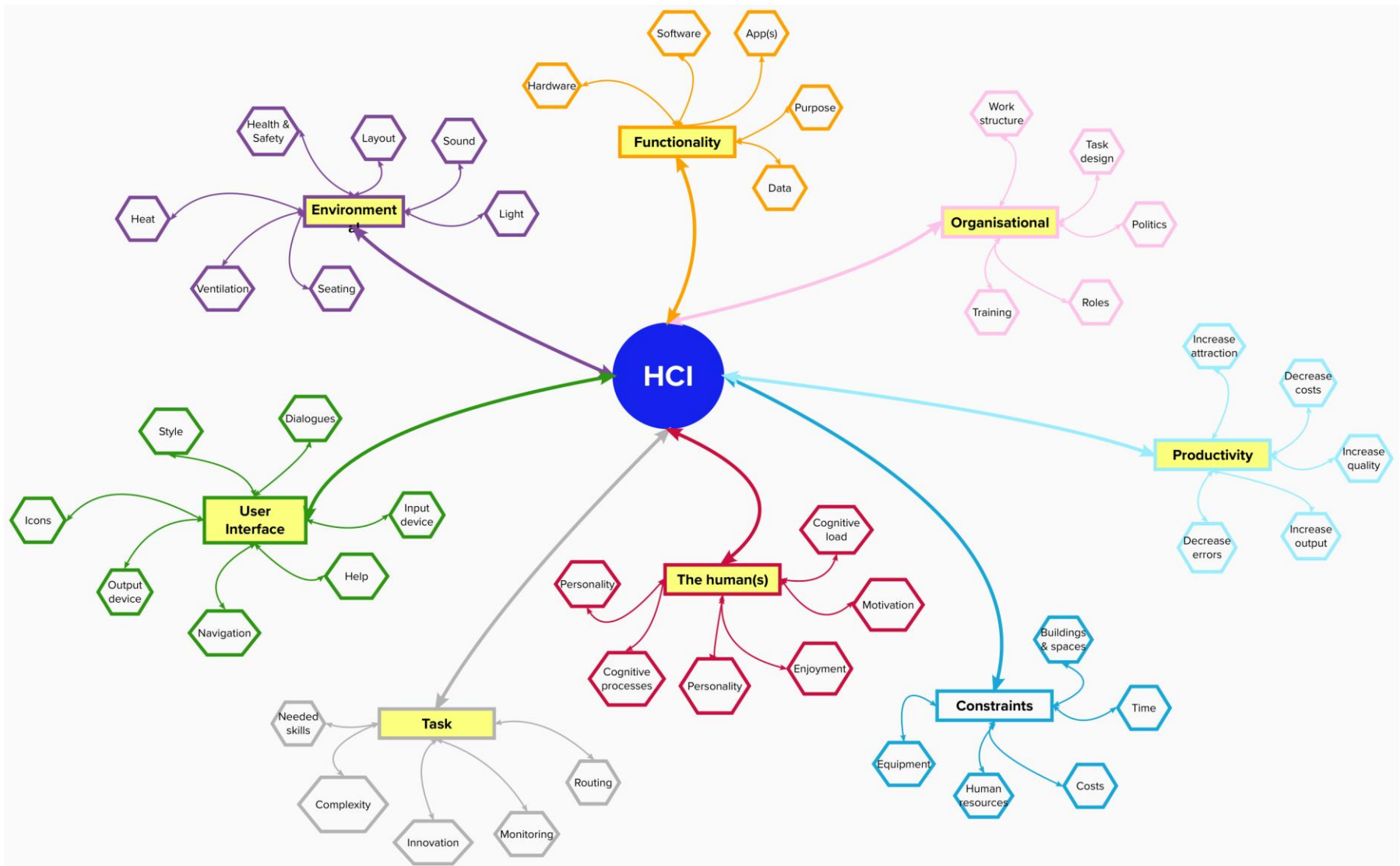
Usability as seen through the HCI lens:

- Easy to learn to use
- Easy to remember how to use
- Effective to use
- Efficient to use
- Safe to use
- Enjoyable to use

If your website doesn't meet these usability criteria, your visitors may be few and seldom.

HCI informed by many disciplines





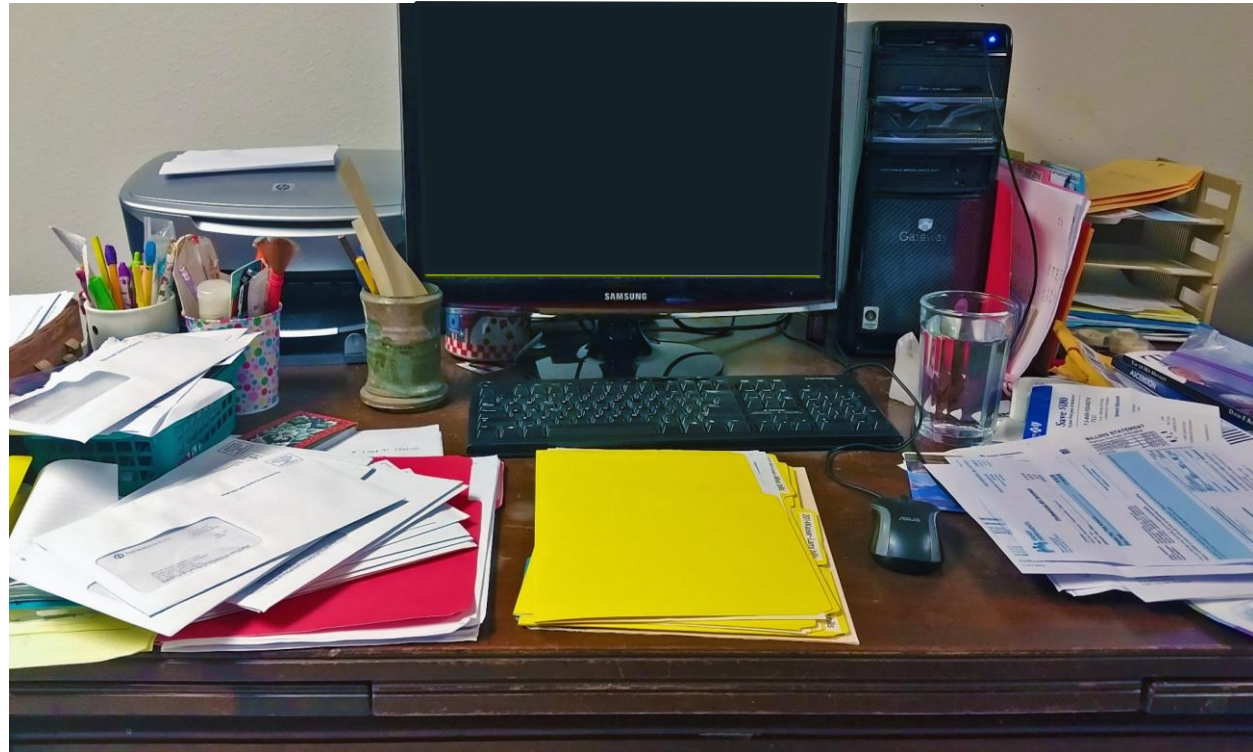
## Can we learn from other projects?



66  
dropdown  
menu  
items!

## Learning from example:

Why do  
computer mice  
use RF  
instead of IR?



Flash Alexander, Public Domain Pictures.net

# Learning from example

Think of the worst website that you have used recently.  
Ask yourself:

- Why was my experience of that website so bad?
- How did I react?

Use the zoom chat to type in a short comment to one or both of these questions.

[We will look at the zoom chat for a few minutes]

# Worst website

Some common reactions:

- Why was my experience of that website so bad?
  - Could not find what I wanted/do what I wanted to do
  - The actions were too complicated
  - Too much unnecessary or irrelevant information
  - The website did not make sense to me
- How did I react?
  - Frustration, anger, ...
  - Laughter at the website/at the web designer
  - Destructive criticism



# Worst website

## Possible reasons:

- Why was my experience of that website so bad?
  - Multiple target audiences (for example, ANU websites serve students, who consume teaching products, academics, who create those products and administrators, who manage the campus)
  - Web designer did not understand what the users want
  - Design focuses on internal workings (“prod site”) instead of how the users want to see the processes
  - Website not evaluated with real data or real users [Wattle’editing on’ example]
  - Nobody with any authority cares about the quality of the website, or there are not enough resources to maintain that quality.

# Worst website

- How did I react?
  - It is easy to have strong personal reactions to a bad website, but those reactions are about you.  
Interactive design (websites, software, ...) is never about you, the designer/developer; it is always about the intended users.
  - Therefore, your reaction needs to become:  
What might be the cause of these problems and, if I were the designer/developer, how would I fix them?
  - This leads to the concept of “critique” or “constructive criticism”.  
Just imagine if you were the developer and someone was directing harsh judgements at you.
  - “Soft” ethical behaviour. You are dealing with humans – colleagues, people you study or interview for requirements, participants in evaluations of the system you are developing

# Requirements

**Verbal and written requirements from the client and users are just the start of the conversation because:**

Users sometimes don't know what they want until they see what they don't want.

What they say and what they think may not be the same thing.

What they say and what you understand may not be the same thing.

There may be a lot of assumptions that are not communicated.

**To address this:**

- Clarify everything you don't understand.
- Understand the content
- Create sketches and/or prototypes of what you propose – it is easier to change a drawing than a complex aspect of the website!

A design principle is a rule or guide that you plan to use in your website development. Design principles can apply to **function** and to **appearance**. There are many standard design principles. Don't forget they should be tailored to suit your project!



## Function

- Describe the design situation
- State what you will do
- State why you will do it
- Any variations to accommodate anomalies



## Appearance

- Balance
- Movement
- Contrast
- Pattern
- Consistency
- Emphasis

# Evaluating your website

*‘Evaluation’ in its broadest sense refers to any systematic process to judge merit, worth or significance by combining evidence and values.*

You are only one person, with your own pre-existing assumptions.

To learn if your website works for others, you need to evaluate it.

- When you gather requirements you can summarise what you think the requirements are and present them back to your target users, using words, pictures, storyboards, mockups, early-stage prototypes.
- You can build simple prototypes of parts of those requirements and let your target users experience what they had said they wanted.

I can't tell you  
how valuable  
your program is



Researcher

I can



Evaluator

[freshspectrum.com](https://freshspectrum.com)

# Evaluating your website

You are only one person, with your own pre-existing assumptions.  
To learn if your website works for others, you need to evaluate it.

- When you have implemented important parts of the system you can isolate them and make a working version that your target users can evaluate, preferably with real data.
- When you have a version of your system that can do useful work, you can arrange for selected users to work with it in their workplace
- When you release version 1.0 of your system you can track its use over the following months.

I can't tell you  
how valuable  
your program is



Researcher

I can



Evaluator

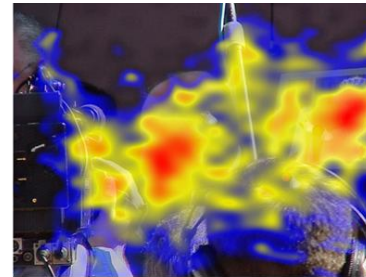
[freshspectrum.com](https://freshspectrum.com)

# Advanced HCI

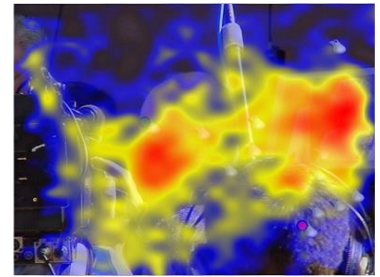
Remember this?



**A**



**B**



**C**

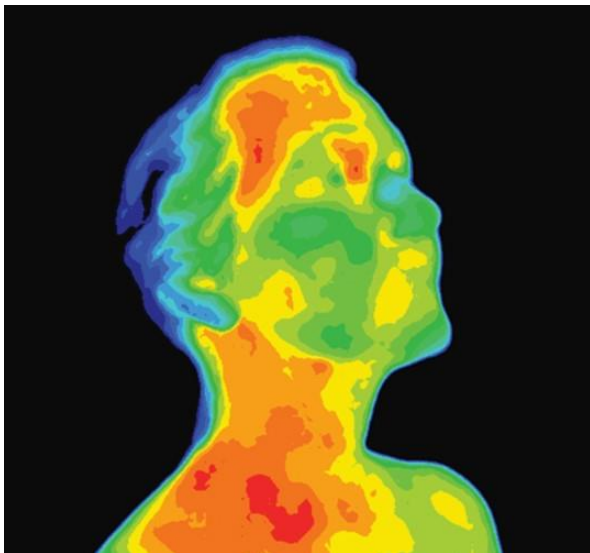
Key: Red - most viewed, yellow - less viewed, blue - least viewed.

While we can learn a lot from people's conscious expression of their thoughts, we can also learn from their non-conscious expressions. These non-conscious expressions are captured through physiological signal tracking

In this case, the physiological signals being captured are eye movements and fixations, called eye-gaze tracking. But wait there's more!

# Advanced HCI

While we can learn a lot from people's conscious expression of their thoughts, we can also learn from their non-conscious expressions. These non-conscious expressions are captured through physiological signal tracking.



Thermal variations



Heartbeat  
Blood volume pulse  
Skin conductance



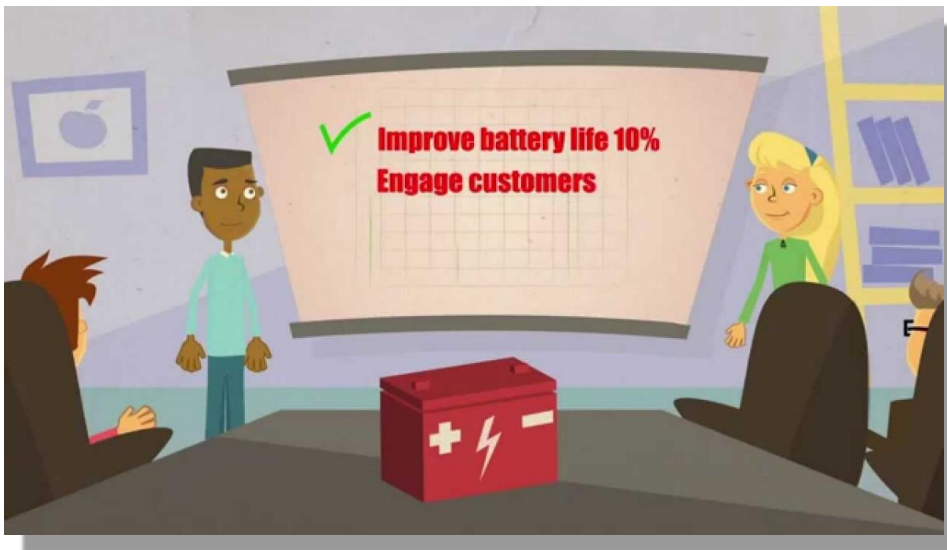
## Last but definitely not least: 'end-to-end experience'



© marketoonist.com

## Plan end-to-end **experiences** NOT **features**

Engineers and software developers think in features but customers/clients and users do not. Users/customers/clients don't care about technology. All they want is a smooth seamless solution.



**End-to-end experience is what the customer sees, feels, and does when he or she uses your product, device, or service in a real-life situation - from the very beginning to the very end.**

As with today, tomorrow's lecture will be fully live online.

Tuesday lecture (tomorrow) will be by David Flores-Condezo. David will be speaking on the topic of web dev tools.

The Zoom link will be via

<https://anu.zoom.us/j/85161222556?pwd=eFNETk5rNG10eGk0SIQ1Z0xmSjhYQT09>

Meeting ID: 851 6122 2556

Password: 509562



## Also note:

MOOC Wk 5 is available; quizlets due by Sunday 28<sup>th</sup> August 11:55pm (23:55) AEST

Finish and submit your Assignment Part1 – due by Monday 29<sup>nd</sup> August 11:00am (11:00) AEST