

CIS2170 USER INTERFACE DESIGN

UNDERSTANDING USERS & CONTEXT PART I



WEEK 3 CLASS 1

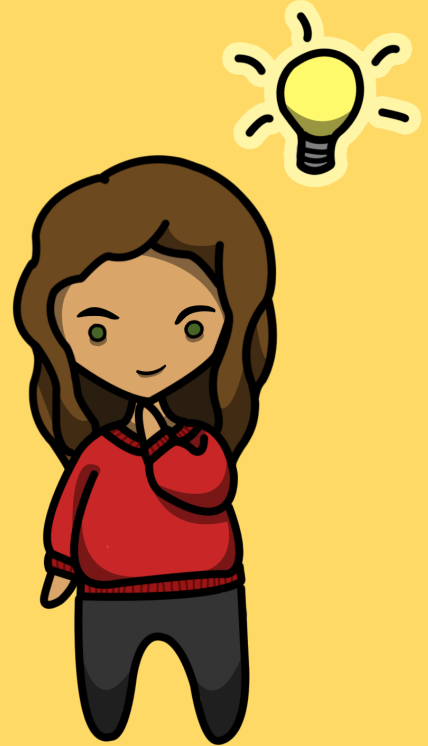
Slides by Dr. Gillis and Dr. Zhao
Artwork by Lilian Shi

Housekeeping:

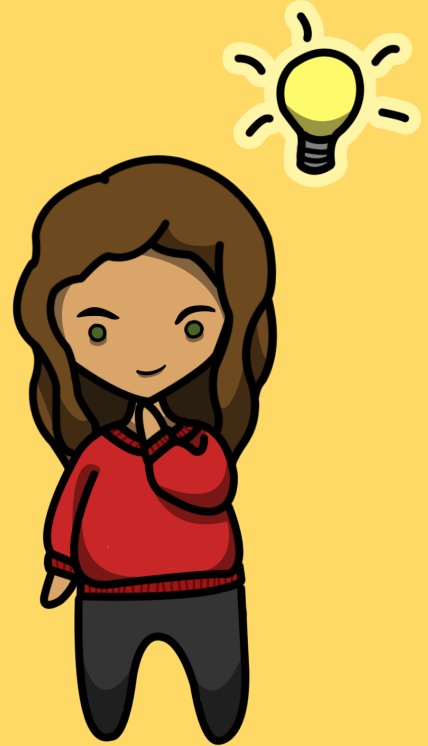
- Labs - TAs will manage your teams
- Lab will be graded starting this week.
- I will be away from March 2–9.
Lectures during this period will be pre-recorded.
- Midterm - Feb 6th



Last week we learned about some principles of (user interface) **Design**, and we talked about several design approaches



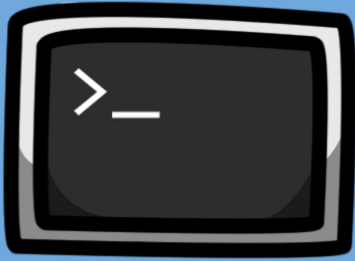
One Design Approach Is Known As
User-Centred Design



IN TODAY'S CLASS:

- Learning about your user?
- Elements of UCD

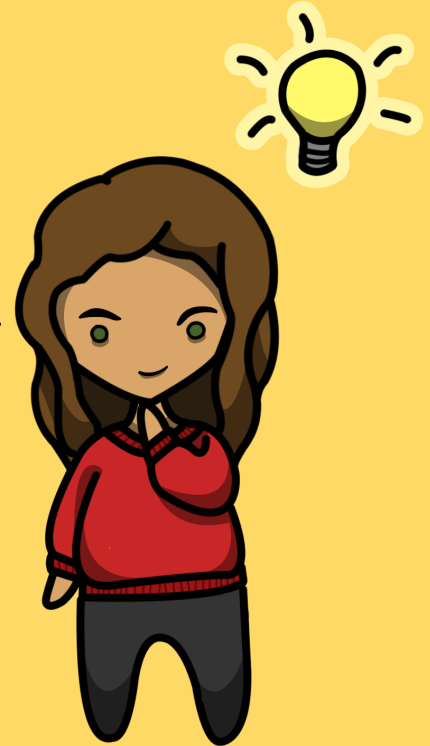




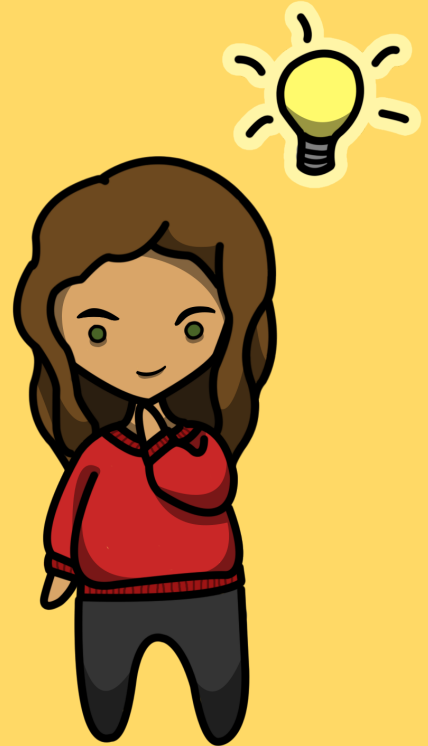
LEARNING ABOUT
YOUR USER?

To Design Anything Using This Approach, We Need
To Have A Good **Understanding Of Our User**

So - What **Questions** Might We Want To Ask So
That We Can Understand Our User?



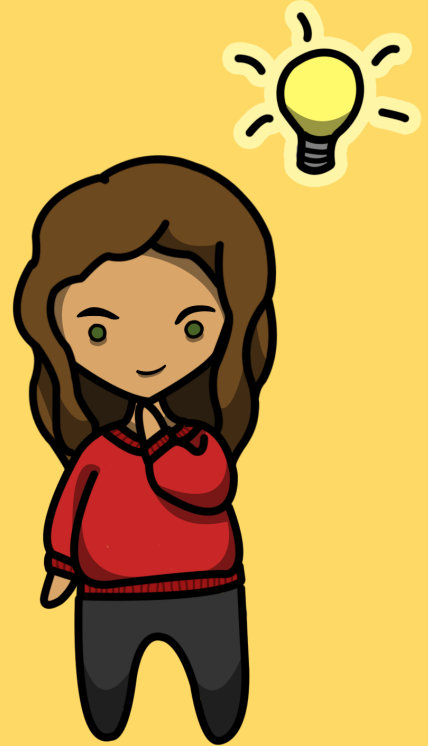
Get Into Your Teams, And Identify **Questions**
That You Think You'd Need To Answer Before
You'd Begin Designing Anything For Your
User



SOME OF THE THINGS YOU MIGHT WANT
TO UNDERSTAND ABOUT YOUR USER

DEMO-
GRAPHICS

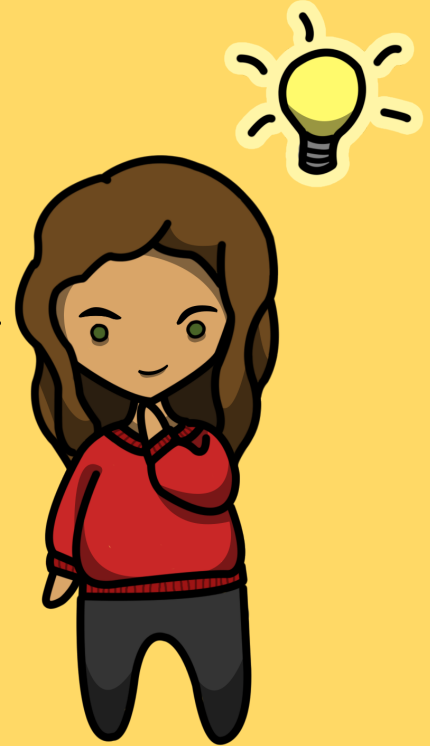
- Age, Gender, Language,
Location, Education, Etc.
- Familiarity With Technology



SOME OF THE THINGS YOU MIGHT WANT TO UNDERSTAND ABOUT YOUR USER

GOALS

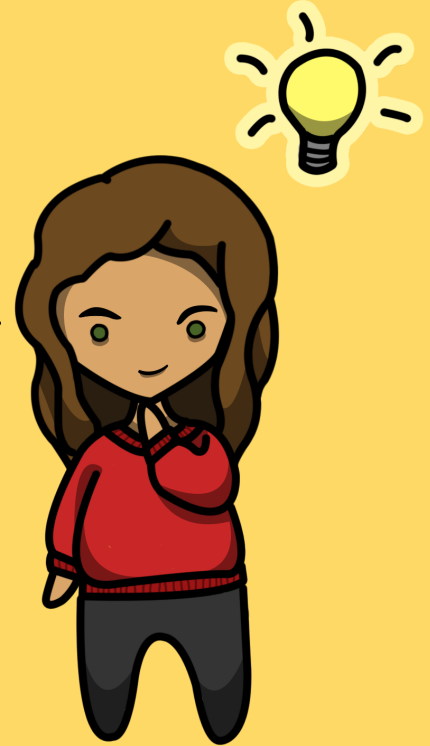
- What Does The User Want To Achieve With The App/Website?
- What Problems Might The App/Website Solve?



SOME OF THE THINGS YOU MIGHT WANT TO UNDERSTAND ABOUT YOUR USER

CURRENT
SOLUTION /
PAIN POINTS

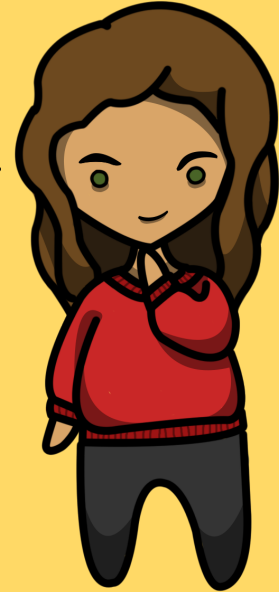
- Do Your Users Already Have A Tool Or Process They Use?
- What Works/Doesn't Work About Those Tools Or Processes?



SOME OF THE THINGS YOU MIGHT WANT
TO UNDERSTAND ABOUT YOUR USER

USAGE
CONTEXT

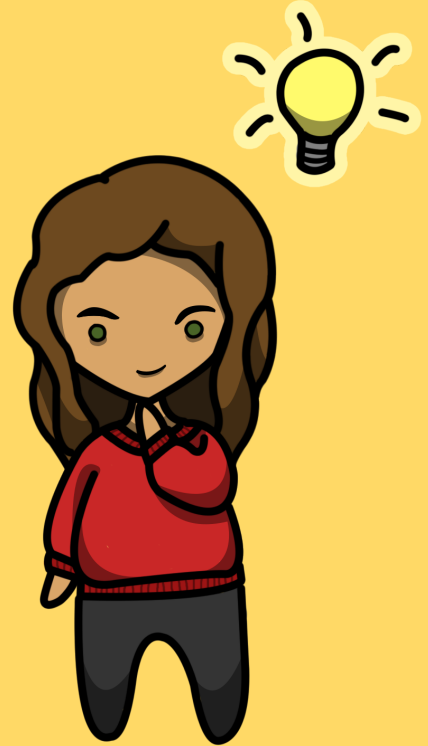
- Environmental Conditions
- Personal Conditions



SOME OF THE THINGS YOU MIGHT WANT
TO UNDERSTAND ABOUT YOUR USER

DEVICE
PREFERENCES

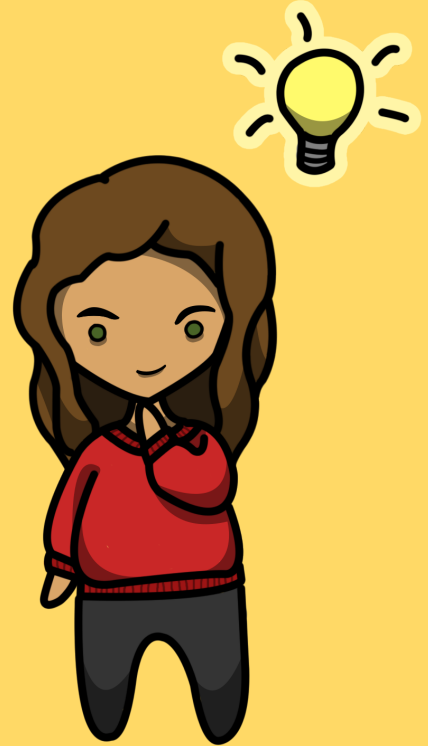
- Mobile Vs. Computer
- iOS Vs Android (For Example)



SOME OF THE THINGS YOU MIGHT WANT
TO UNDERSTAND ABOUT YOUR USER

KEY
FEATURES

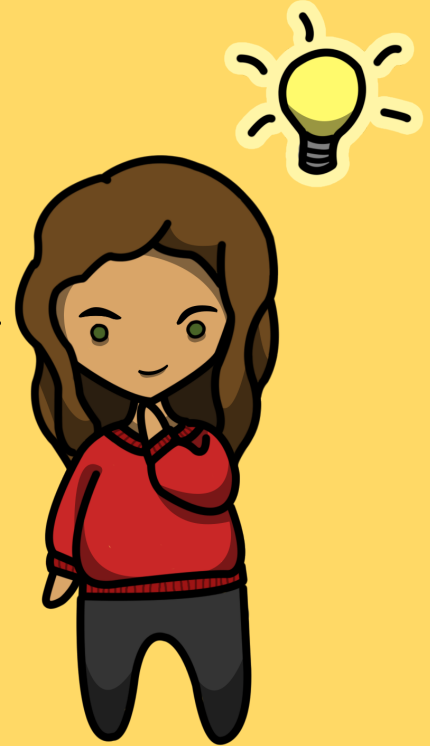
- What Are The Most Important Things The App/Website Should Do?
- Must-Haves?



SOME OF THE THINGS YOU MIGHT WANT
TO UNDERSTAND ABOUT YOUR USER

LEGAL
ISSUES

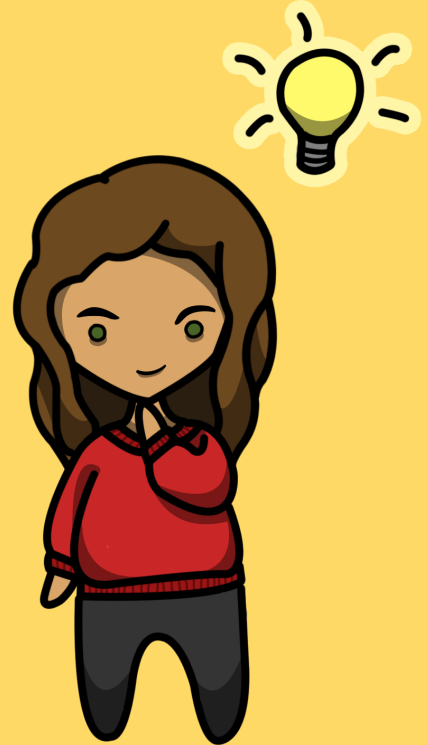
- Accessibility (AODO)
- Privacy (PIPEDA)
- Anti-Spam (CASL)



SOME OF THE THINGS YOU MIGHT WANT TO UNDERSTAND ABOUT YOUR USER

DESIGN PREFERENCES

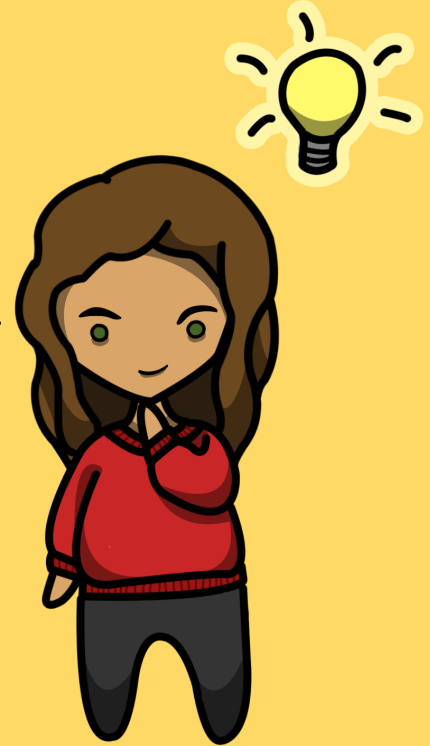
- Do You Have Any Specific Design Specs (Logos, Colours, Fonts, Layouts, Etc.)
- Any Design Elements That Should Be Avoided?



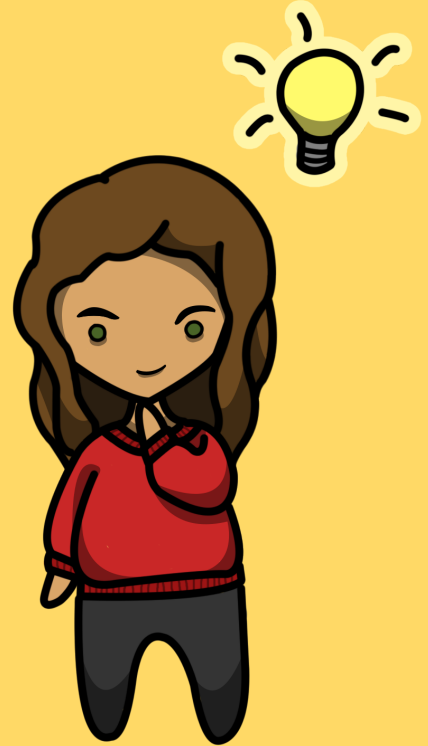
SOME OF THE THINGS YOU MIGHT WANT TO UNDERSTAND ABOUT YOUR USER

FEEDBACK /
UPDATES

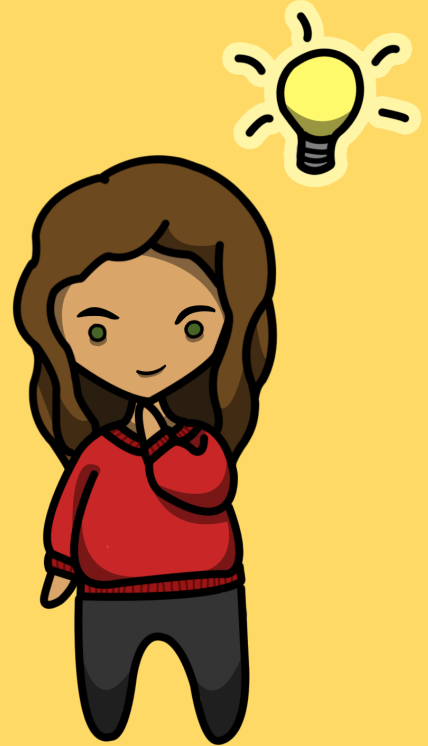
- Do You Imagine This App/
Website Will Continue To
Grow?
- How Often Should It Be
Updated?



Now that we have an idea of what questions we should answer, the next thing we might want to determine is **HOW** we might collect information to answer those questions



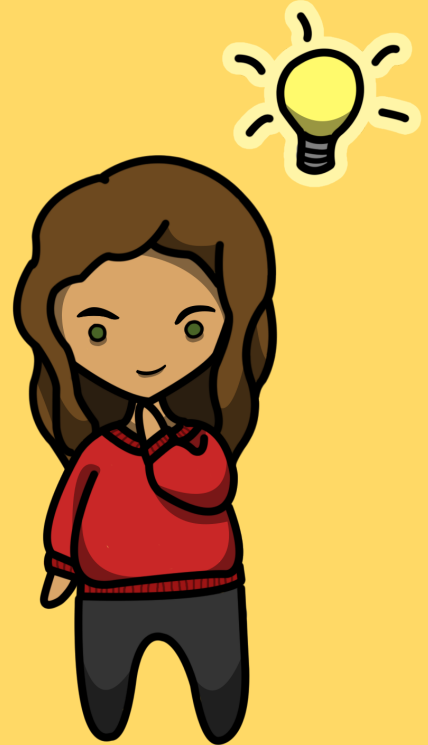
Discuss This For A Few Moments In Your
Team



TO GATHER ANSWERS TO THE
QUESTIONS YOU HAVE ABOUT YOUR
USERS, YOU MIGHT CONSIDER...

PREVIOUS
WORK

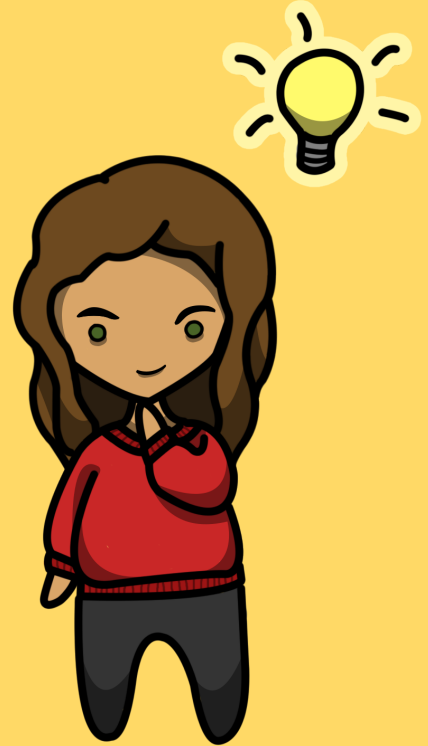
- Scientific Literature
- Review Similar Projects
- Reputable Newspapers, Blogs,
Or Magazines
- Documentaries



TO GATHER ANSWERS TO THE
QUESTIONS YOU HAVE ABOUT YOUR
USERS, YOU MIGHT CONSIDER...

OBSERVATION

- Active: Sitting With The User & Watch What They Do
- Passive: Observe The User From A Distance & Watch What They Do (Field Studies)

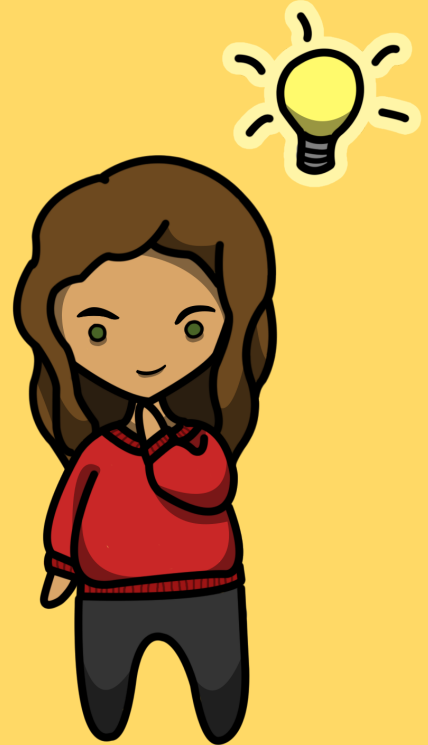


TO GATHER ANSWERS TO THE
QUESTIONS YOU HAVE ABOUT YOUR
USERS, YOU MIGHT CONSIDER...

EXPERIMENT

- Develop Tests To Understand
How A User Might Respond:

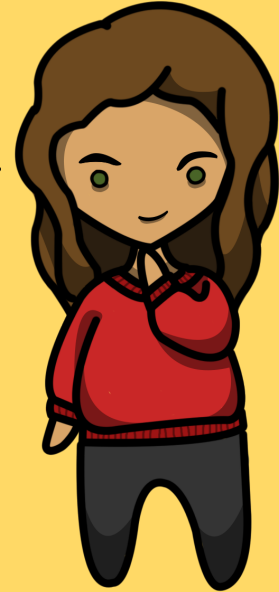
Usability Testing, A/B Testing,
Prototype Testing, etc.



TO GATHER ANSWERS TO THE
QUESTIONS YOU HAVE ABOUT YOUR
USERS, YOU MIGHT CONSIDER...

FORMAL
DATA
COLLECTION

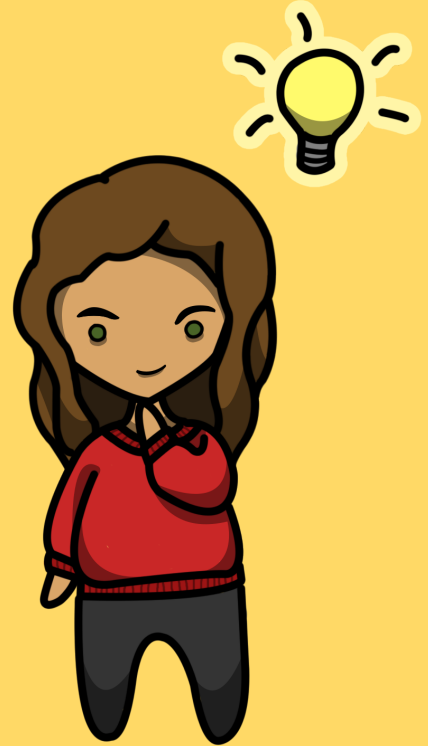
- Surveys
- Interviews
- Passive Tracking



TO GATHER ANSWERS TO THE
QUESTIONS YOU HAVE ABOUT YOUR
USERS, YOU MIGHT CONSIDER...

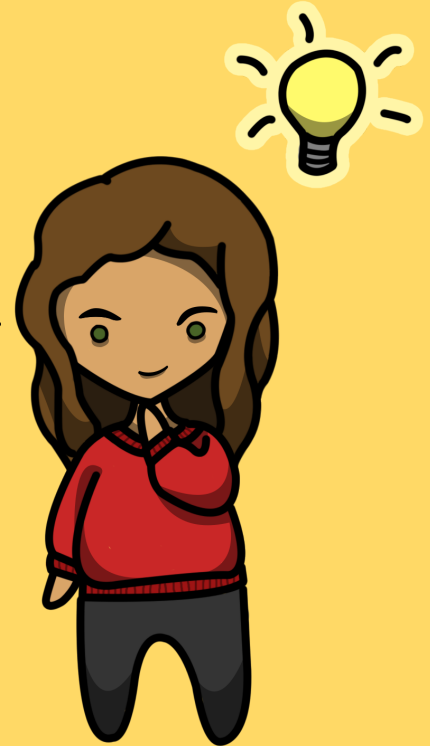
OTHER
MEANS?

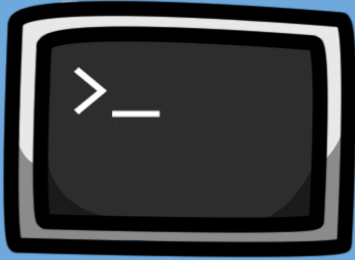
- Data Mining
- Expert Opinions
- Focus Groups
- Feedback Channels



Do You Have To Do All Of These Things To Understand Your User?

No - You Will Likely Pick And Choose From This List (And Other Options) Based On The Size And Purpose Of The Project, And Given Available Resources





ELEMENTS OF USER CENTRED DESIGN



There Are Several Essential Elements Of User-Centred Design

- Visibility
- Accessibility
- Legibility
- Language

VISIBILITY



Visibility Is Another Way Of Saying That **The Form Informs The Function**

A User's Experience/Bias Should Guide Them In Intuitively Understanding The Design

VISIBILITY

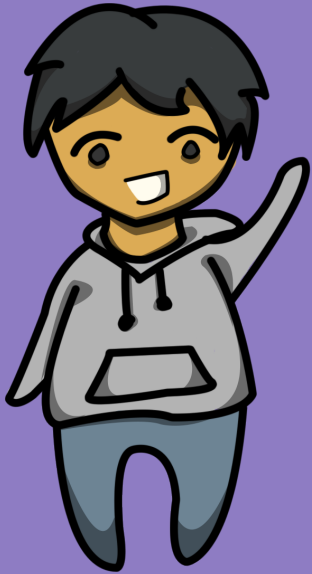


How Can We Use A User's Experience
Or Bias To Help The Form Of Our Design Inform
The Function Of Our Design?

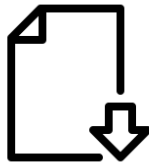
Menti



VISIBILITY



Use Things That People Are Familiar With
(To Reduce Cognitive Load)



A



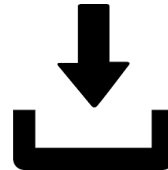
B



C

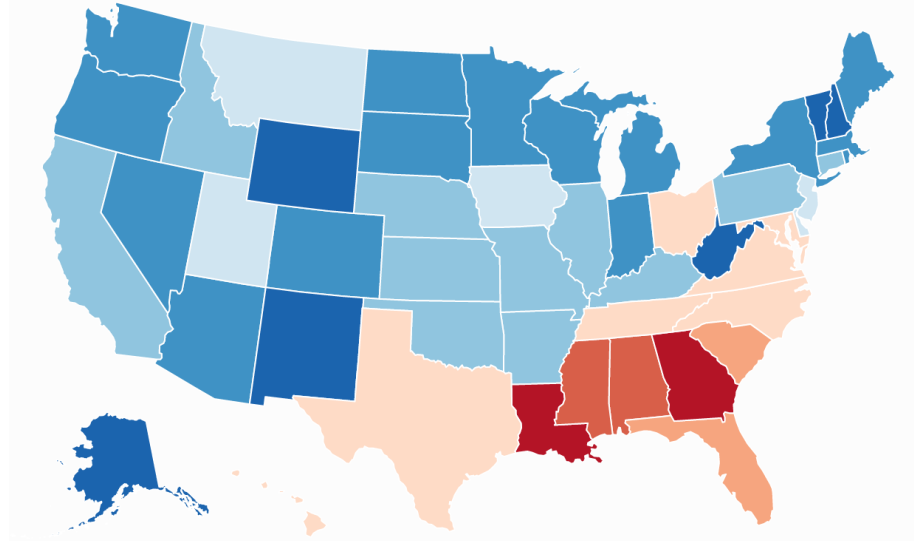


D



E

VISIBILITY



- Despite The Fact That There Is No Legend On This Map, What Might Your Experience Suggest To You?

ACCESSIBILITY



Accessibility Has **Two Meanings** In This Course
- So We Need To Be Very Clear What We Mean
When We Talk About It

ACCESSIBILITY



Elsewhere In The Course, Accessibility Refers
To Designing For People With Diverse Abilities

ACCESSIBILITY



In The Context Of “Elements Of User Centred Design”, Accessibility Means That **Users Should Be Easily Able To Find The Things They Need**

ACCESSIBILITY



- **Chunking** Is A Method To Help The User Find/ Recall The Things They Need
- A “Chunk” (In Psychology) Is An Organizational Unit Of Memory
- Can You Think Of An Example?

ACCESSIBILITY



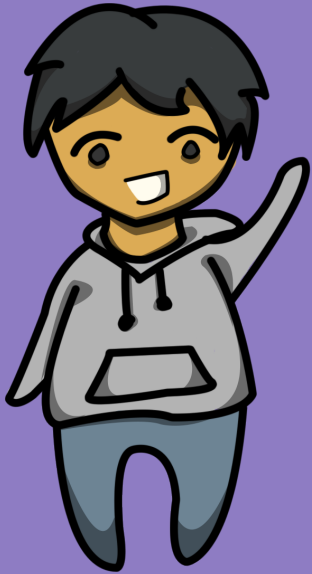
CHUNKING IN ACTION

ACCESSIBILITY



- Consider Your Bank Card Or Credit Card Number -
- The Digits Are Chunked Into (Typically) Groups Of 4
- Phone Numbers Are The Same
- This Helps Us Remember Them

LEGIBILITY



Legibility Is All About Ensuring
Your Design Is Easy To Read

LEGIBILITY



Font Choice Matters - Not Just Because It Can Change The Tone Of The Message You Are Sharing, But Because It Also Can Reduce Legibility

LEGIBILITY



ILL BE
WAITING
FOR YOU!

I'll be^{♡♡}
waiting
for you

FONT CHOICE **MATTERS**

LEGIBILITY



How about trying to read this text
in a paragraph on your website?
Many, many lines of text with
important information that will
never get read because it's too
hard to read.

LEGIBILITY



From An Accessibility Point Of View - Research
Indicates San Serif Monospaced Roman Type
Fonts Work Best For People With [Dyslexia](#)

LEGIBILITY



“WIDOWS” AND “ORPHANS”

crystal.

Getting at last a slant of the wind, we ran in among the low islands which line the coast above Svarte Huk; and Sonntag, who had gone ahead in a boat to Pröven, having sent off to us a swarthy-looking pilot, we wound our way slowly through.

The kayak of the Greenlander is the frailest specimen of marine architecture that ever carried human freight. It is eighteen feet long and as many inches wide at its middle, and tapers, with an upward curving line, to a point at either end.

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LANGUAGE



This Also Involves The Words We Use

- Avoid Jargon
- Avoid Too Much Text
- Avoid Academic Speak
- Avoid “Big Words”
- Spelling & Grammar Count

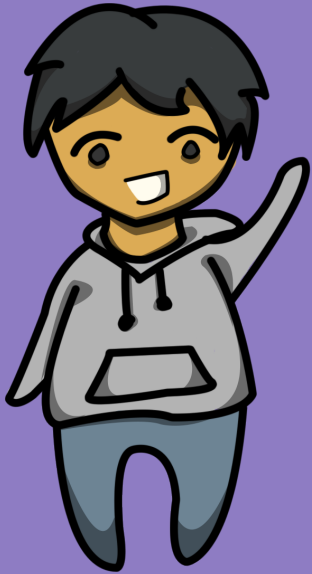
*Unless It's Specific To The Client Need

LANGUAGE



Read This - [UX Writing](#)

Exercise



- As Teams, Review The UofG Website From The Point Of View Of The 4 Elements Of User Centred Design