

Week 2: Expert Evaluation

Uta Hinrichs & Tara Capel

today

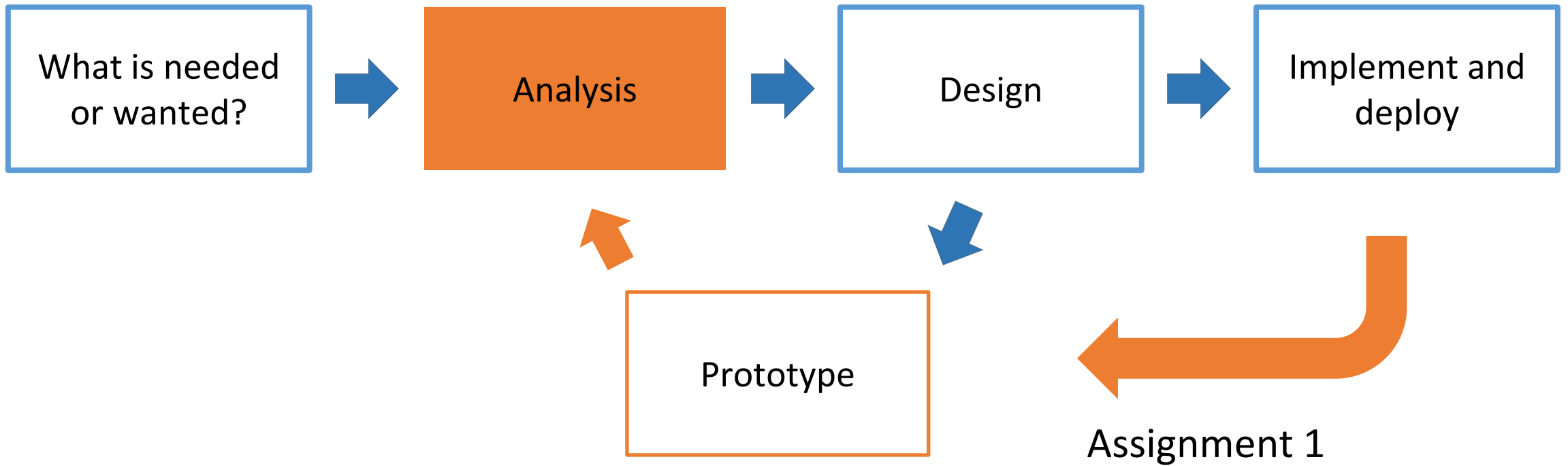
- Assignment 1: Heuristic Evaluation
- Re-cap: Nielsen's Heuristics
- Discussion of applying heuristics

Assignment 1: Heuristic Evaluation

[individual + group work; due Oct. 10]

what's involved

- Decide on interactive system [group]
- Set evaluation scope [group]
- Agree on documentation [group]
- Explore the interactive system [individual]
- Conduct heuristic evaluation [individual]
- Discuss issues discovered [group]
- Consolidate identified issues [group]
- Reflect on process [group]



what system to evaluate?

- Spotify
- DiscoverEd
- ???

setting the scope of your evaluation

- Usage scenario(s)
 - Individual/shared/collaborative use
 - ...
- Technology
 - Desktop computer
 - Mobile
 - Smartwatch
 - ...
- Environment / setting
 - At home
 - On-the-go
 - ...

notes on documentation

Nielsen Norman Group

Heuristic Evaluation Workbook

EVALUATOR:

DATE:

PRODUCT:

TASK:

1

Visibility of System Status

The design should always keep users informed about what is going on, through appropriate feedback within a reasonable amount of time.

- Does the design clearly communicate its state?
- Is feedback presented quickly after user actions?

Issues

Recommendations

2

Match Between System and the Real World

The design should speak the users' language. Use words, phrases, and concepts familiar to the user, rather than internal jargon. Follow real-world conventions, making information appear in a natural and logical order.

- Will user be familiar with the terminology used in the design?
- Do the design's controls follow real-world conventions?

Issues

Recommendations

NNGROUP.COM **NN/g**

[Nielsen Heuristic Evaluation Workbook](#)

No.	HE-	Problem/Good Aspect:
Name:		
Evidence Heuristic: Interface aspect:		
Explanation		
Severity or Benefit Rating: Justification (Frequency, Impact, Persistence) Frequency: Impact: Persistence: How I weighted the factors:		
Possible solution and/or trade-offs		
Relationships		

Usability Aspects Report [more detailed]

notes on the evaluation itself

- Find at least 5 issues and link them to Nielsen's 10 heuristics
- Document usability issues as well as positive aspects!!!
 - Explore what works/doesn't work and why
- Any aspects that stand out but do not seem to fit Nielsen's heuristics?
 - Document these as well!
- Consider the severity of issues (ranking)

any questions?

re-cap: Nielsen's heuristics

Nielsen's usability heuristics

- 1: Visibility of System Status
- 2: Match Between the System and the Real World
- 3: User Control and Freedom
- 4: Consistency and Standards
- 5: Error Prevention
- 6: Recognition Rather than Recall
- 7: Flexibility and Efficiency of Use
- 8: Aesthetic and Minimalist Design
- 9: Help Users Recognize, Diagnose, and Recover from Errors
- 10: Help and Documentation

1. Visibility of System Status

“Communicating the current state allows users to feel in control of the system, take appropriate actions to reach their goal, and ultimately trust the brand” or the system.



<https://www.nngroup.com/articles/visibility-system-status/>

1. Visibility of System Status

Manage

Shortcuts

uhinrich

Groups

Text formatFull HTML

About text formats

Files

Please upload your files here. Please keep sizes to minimum practical an remember these will be *immediately* (and potentially *irrevocably*) public.

Show row weights

File information	Display	Operations
<div><div>÷</div><div> hci2020heuristics-3.pdf (3.53 MB)</div></div>	<input type="checkbox"/>	<div>Remove</div>
<div><div>÷</div><div> hci-cognitive-walkthrough-2.pdf (1.56 MB)</div></div>	<input type="checkbox"/>	<div>Remove</div>
<div><div>÷</div><div> 02_heuristics.pdf (1.91 MB)</div></div>	<input checked="" type="checkbox"/>	<div>Remove</div>

Description

The description may be used as the label of the link to the file.

Description

The description may be used as the label of the link to the file.

Description

The description may be used as the label of the link to the file.

Add a new file

Browse...

No files selected.

Maximum 60 files.
6 MB limit.
Allowed types: pdf txt zip md gz bz2 xz tex csv py ipynb notebook hs java xml json docx pptx odt odp pm pl ml.

URL alias

/hci/week2

Specify an alternative path by which this data can be accessed. For example, type "/about" when writing an about page.



Temporal link (will expire)

https://opencourse.inf.ed.ac.uk/system/temporary?file=filefield_paths/02_heuristics.pdf

Permanent link

https://opencourse.inf.ed.ac.uk/sites/default/files/http/s/opencourse.inf.ed.ac.uk/hci/2025/02_heuristics.pdf

1. Visibility of System Status

COLOUR: Dark mole



SELECTED SIZE: M

XXS	XS	S	M	L
XL	XXL	3XL	4XL	

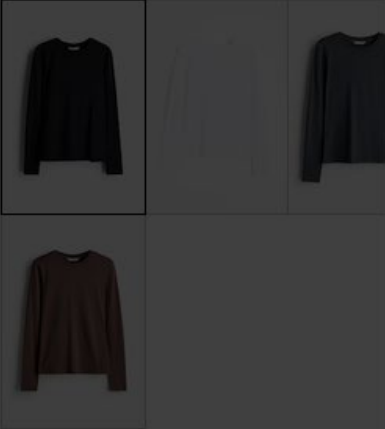
[SIZE GUIDE](#)



Find in store

[CHECK AVAILABILITY](#)

COLOUR: Black



SELECTED SIZE: 3XL

XXS	XS	S
XL	XXL	3XL



Find in store

SIZE 3XL IS OUT OF STOCK

Get notified if it comes back in stock. [Notify me!](#)

Similar products available in size 3XL



LONG-SLEEVED COTTO...
£9.99

LONG-SLEEVED JERSE...
£12.99



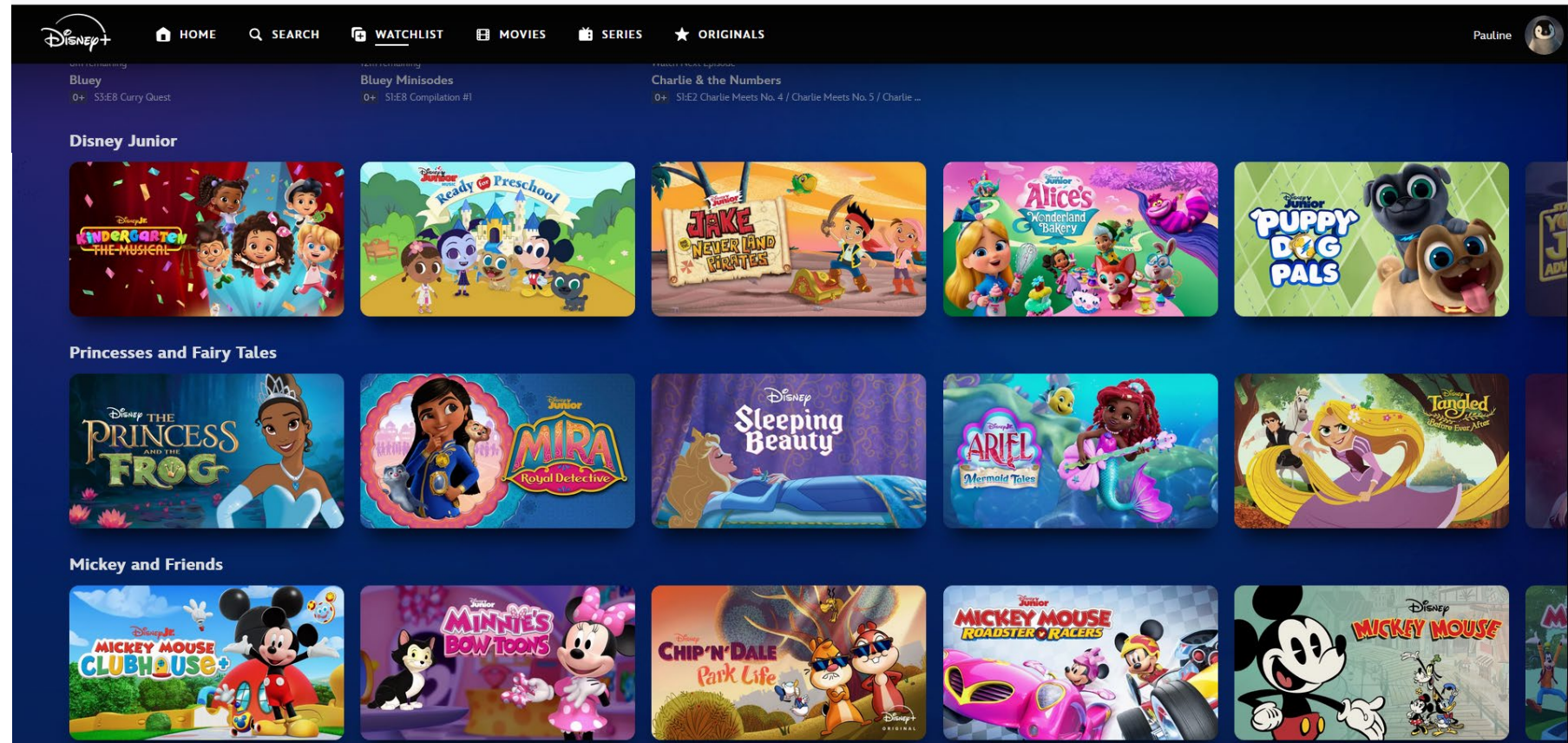
2. Match Between the System and the Real World

- Systems should speak the users' language with familiar words, phrases, and concepts rather than system-oriented terms.
- Interfaces that follow real-world conventions and make information appear in a natural and logical order demonstrate empathy and acknowledgement for users.

2. Match Between the System and the Real World



Volume buttons on ear phones.

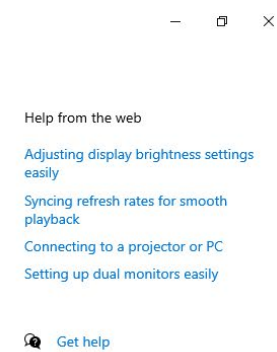
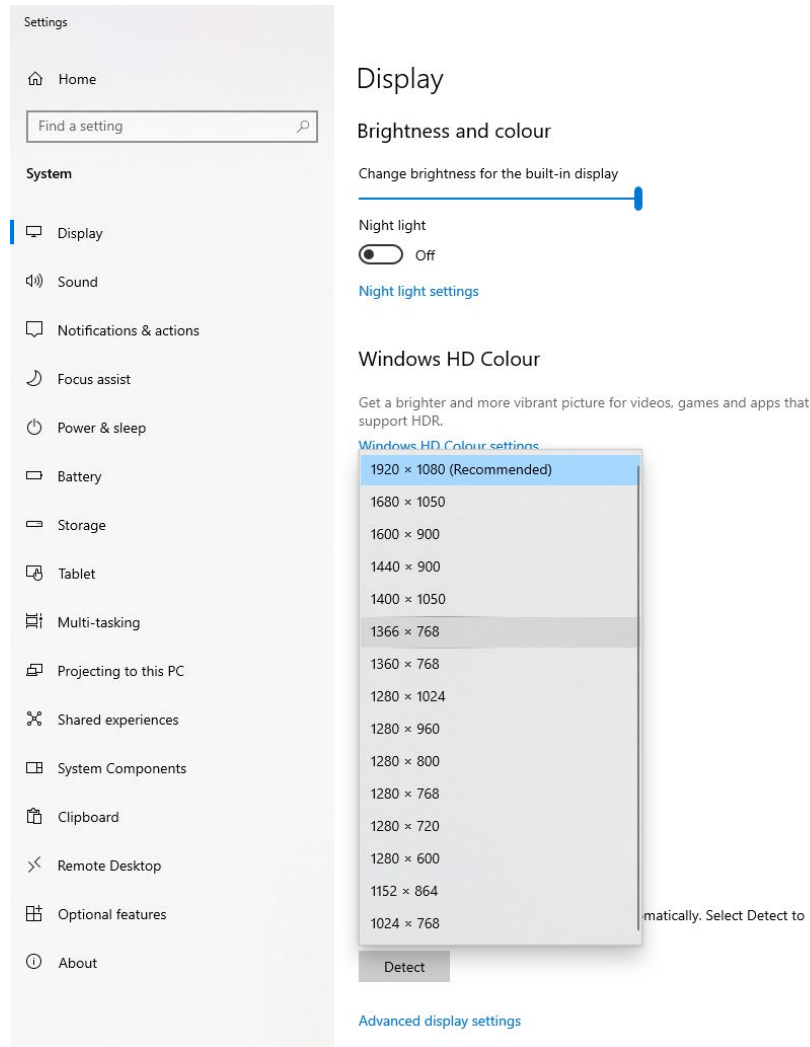


Overview of digital music, video or book collections

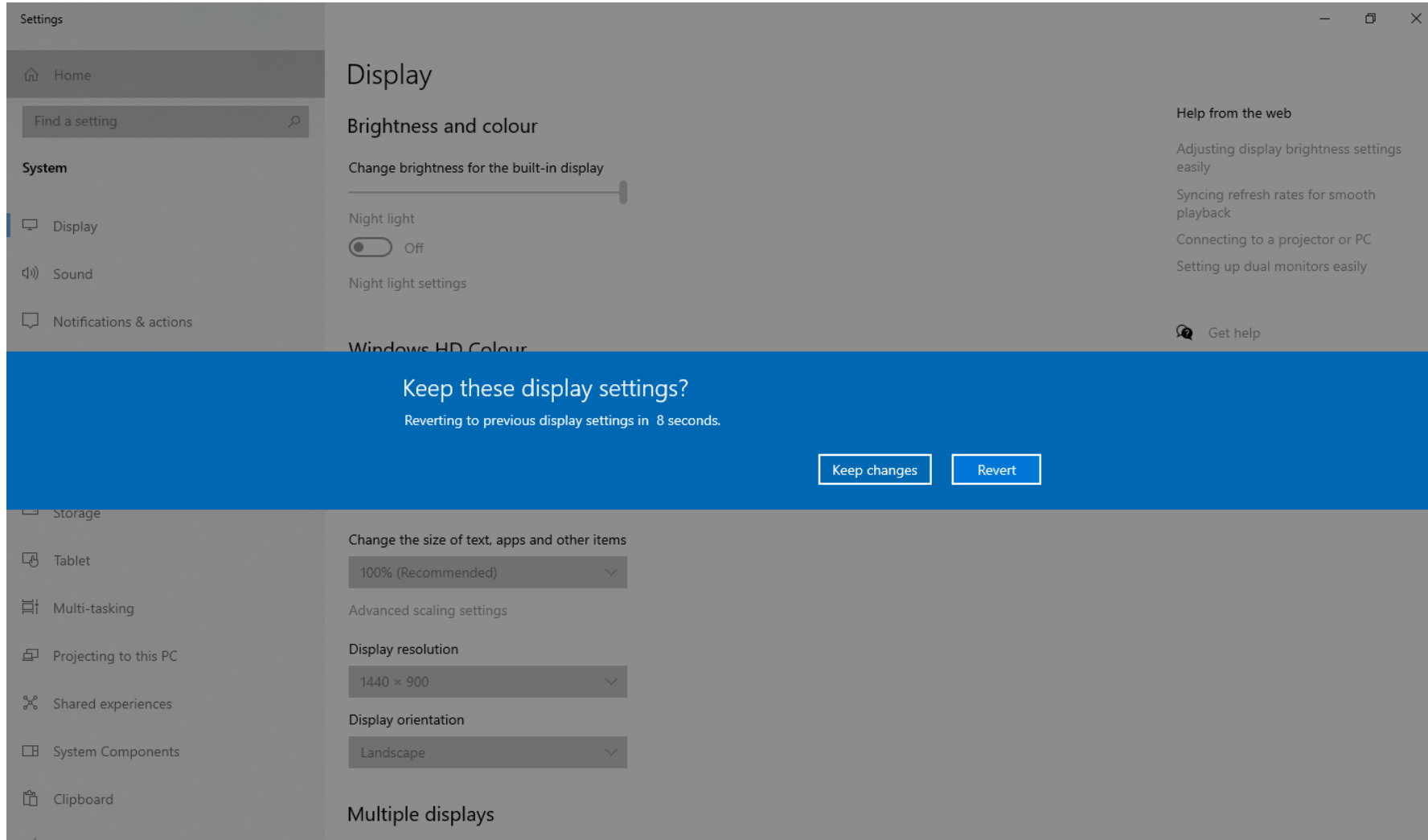
3: User Control and Freedom

- Users often make mistakes or change their minds. Allow them to exit a flow or undo their last action and go back to the system's previous state.
- Always have a way out
 - Undo
 - Exit
 - Cancel

3: User Control and Freedom



3: User Control and Freedom

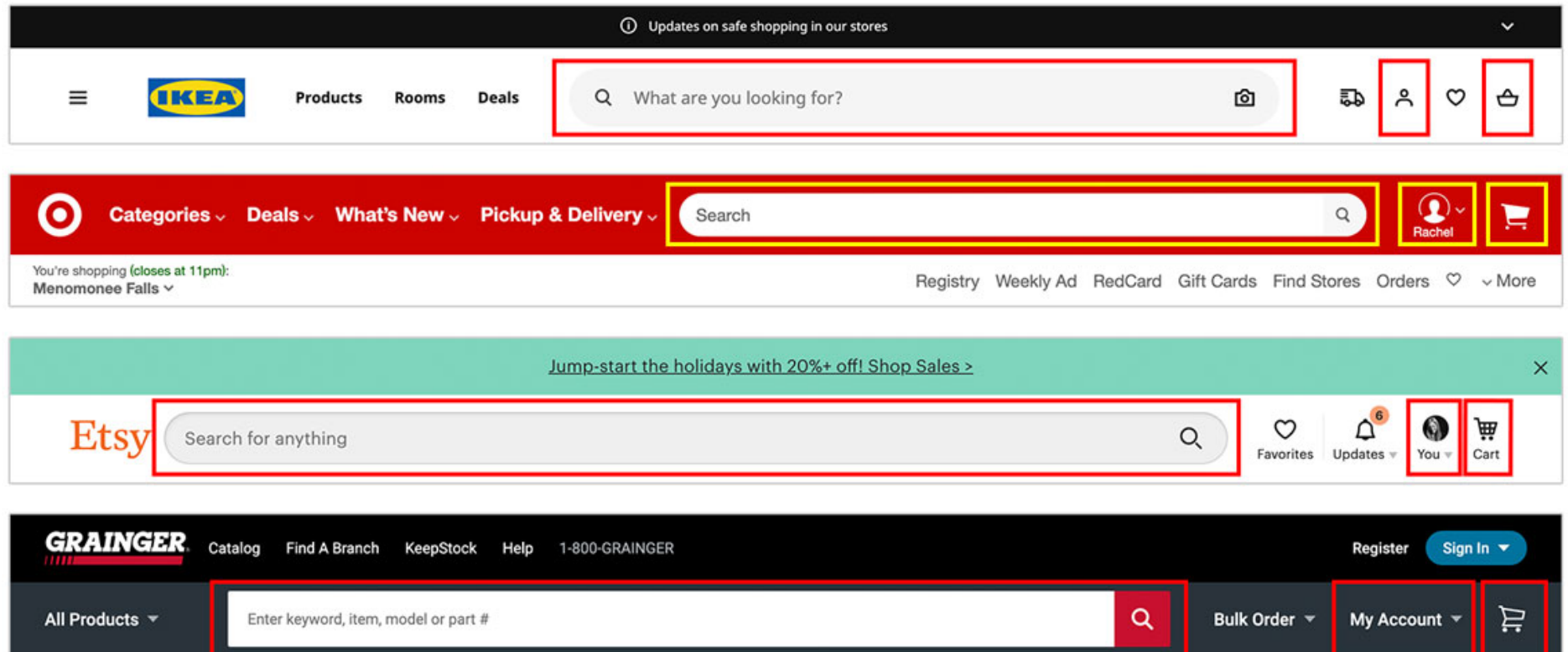


3: User Control and Freedom

- Users often make mistakes or change their minds. Allow them to exit a flow or undo their last action and go back to the system's previous state.
- Always have a way out
 - Undo
 - Exit
 - Cancel
- Adjustability
 - Sound
 - Input modality
 - Display settings

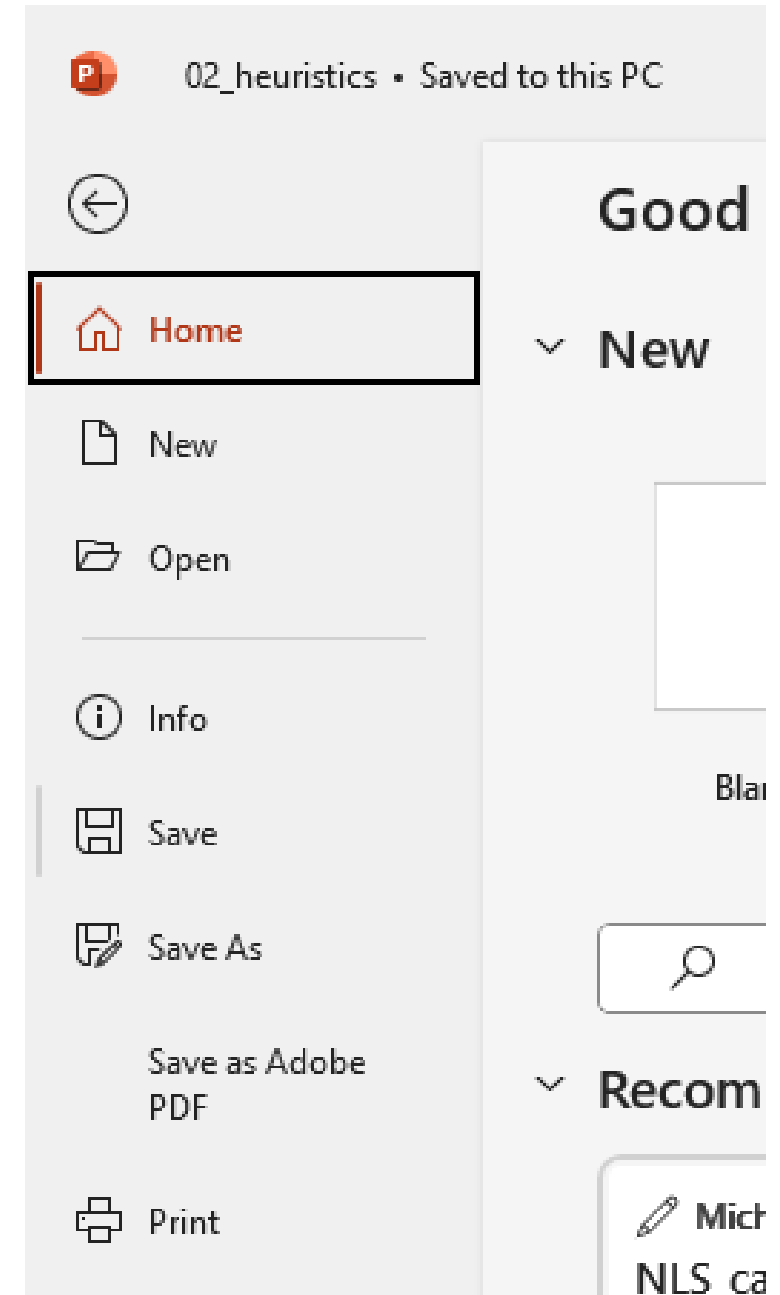
4: Consistency and Standards

- When things look and behave the same, we know what to expect
 - Less cognitive load
 - Eases adaption to new systems



4: Consistency and Standards

- Note that standards can change
 - See “save” icon

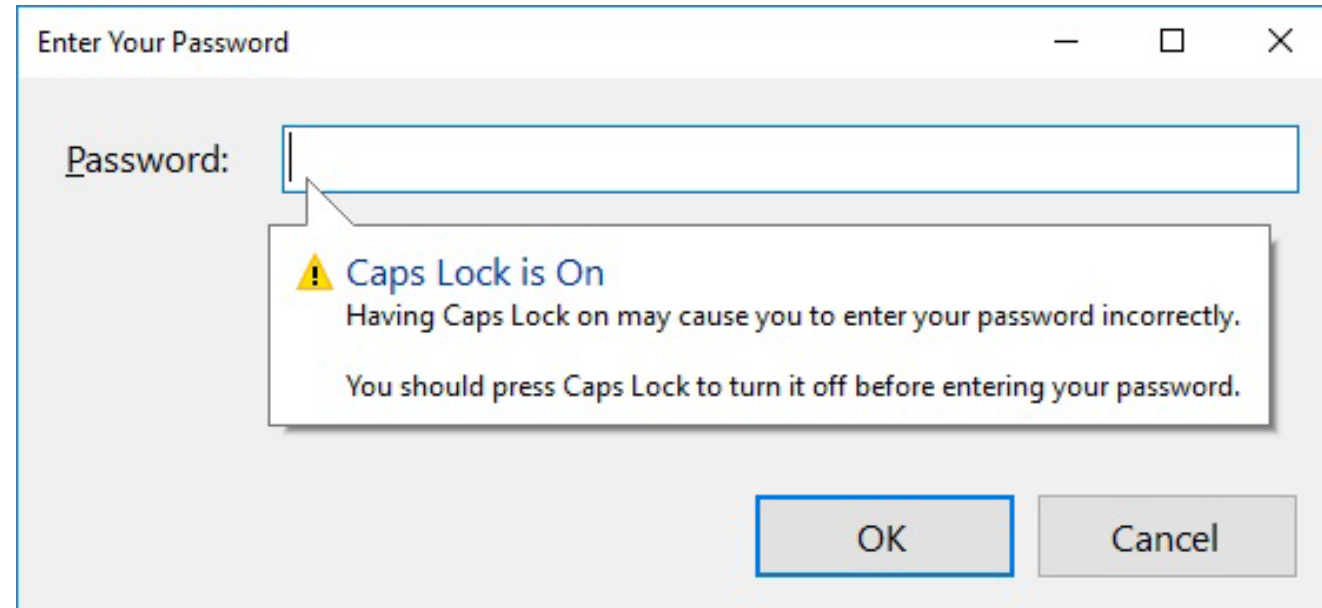


5: Error Prevention

- Prevent unconscious errors by offering suggestions, utilizing constraints, and being flexible.
- Error types
 - Mistakes
 - Slips
- Mistakes
 - Conscious errors; often the user has incomplete or incorrect information about the task and develops a mental model that does not match how the interface actually works

5: Error Prevention

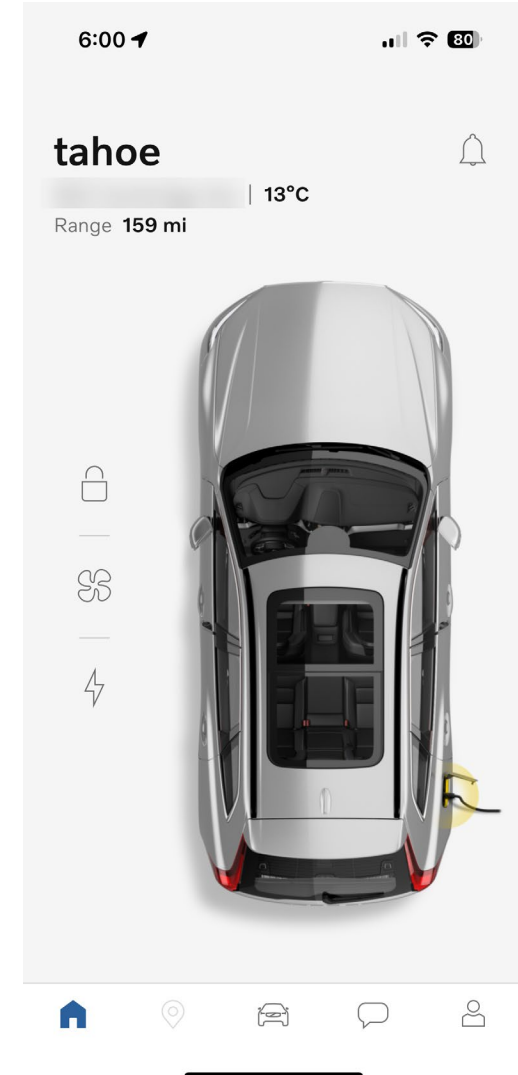
- Slips
 - User intends to perform an action but does something else by accident.
- Preventing slips
 - Include helpful constraints
 - Offer suggestions
 - Choose good defaults
 - Use forgiving formatting



6: Recognition Rather than Recall

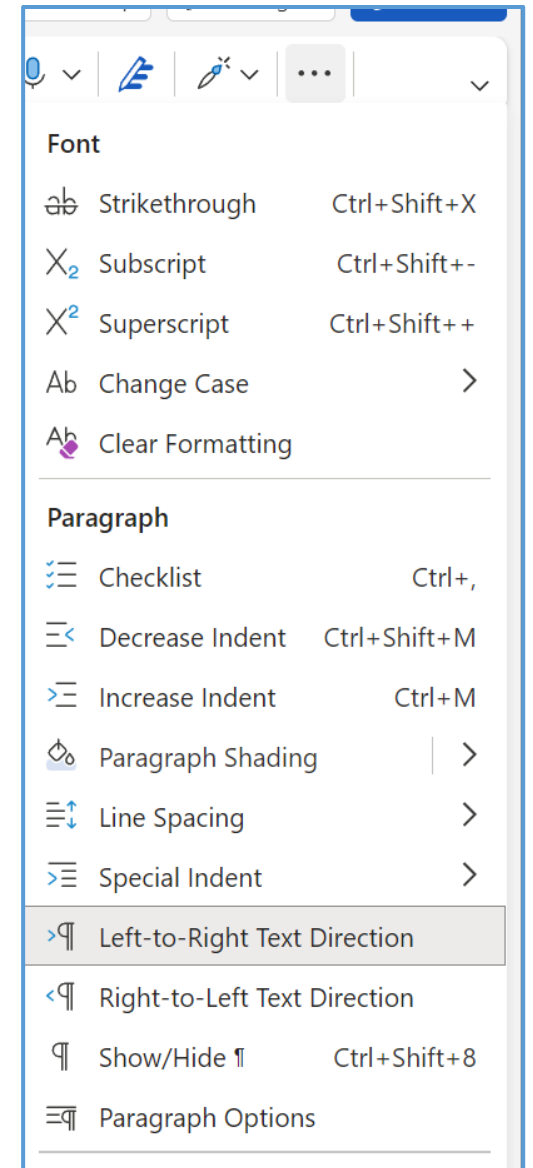
- Minimize the user's memory load by making elements, actions, and options visible
- Recalling items from scratch is harder than recognizing the correct option in a list of choices
- Example: menus
- More problematic examples
 - Direct-touch interfaces (see Mindy app)

<https://www.nngroup.com/articles/recognition-and-recall/>



7: Flexibility and Efficiency of Use

- Make it work for different abilities and needs
 - Expert User vs Novice
- Offer multiple ways to accomplish popular options
 - e.g. keyboard shortcuts
 - List options but offer search



8: Aesthetic and Minimalist Design

- Aesthetically pleasing designs can provide memorable experiences
- However, interfaces should only include necessary elements, with high informational value
- Clarity “usually” wins over visual flourish
- Recommendation
 - Avoid clutter and (visual) noise
 - Apply a good layout



Convert visitors into customers with Hello Bar

Enter your website URL

Create free account



Architect

Personality

INTJ-A / INTJ-T

(WHAT'S THE DIFFERENCE?)

Explore This Type

Introduction

Strengths & Weaknesses

Romantic Relationships

Friendships

Parenthood

Career Paths

Workplace Habits

Introduction

WHO IS AN ARCHITECT (INTJ)?

An **Architect (INTJ)** is a person with the **Introverted**, **Intuitive**, **Thinking**, and **Judging** personality traits. These thoughtful tacticians love perfecting the details of life, applying creativity and rationality to everything they do. Their inner world is often a private, complex one.

"Thought constitutes the greatness of man. Man is a reed, the feeblest thing in nature, but he is a thinking reed"

New Here?

Take the Test

Already have your results? [Log in.](#)

9. Help Users Recognize, Diagnose, and Recover from Errors

- Error messages should be expressed
 - in plain language (no error codes),
 - precisely indicate the problem, and
 - constructively suggest a solution

[Back](#)

[See examples](#)

Create a Multiple Choice Question

Enter the question you want to ask your audience

Question title

Which heuristics would you like to discuss more?

e.g.: What is the capital of Uganda?

Answers

Enter the answers and pick at least one correct answer

- ☐

Choice 1

1: Visibility of System Status

e.g.: Kampala




- ☐

Choice 2

2: Match Between the System and the Real World

e.g.: Brussels




- ☐

Choice 3

3: User Control and Freedom




- ☐

Choice 4

4: Consistency and Standards




- ☐

Choice 5

5: Error Prevention




- ☐

Choice 6





[+ New choice](#)



Cancel


 Save

 Display now


 Multiple choice ▾

- 1
- 2
- 3


- ☒ Bar chart 
- ☐ Word Cloud 

Multiple answers 

Participants can select more than one answer

Allow comments 

Allow participants to add comments to explain their answer

Timer 

If checked, a timer will automatically start when a question is displayed.

?

[Back](#)

Create a Multiple Choice Question

Enter the question you want to ask your audience

Question title

Which heuristics would you like to discuss more?

e.g.: What is the capital of Uganda?

Answers

Enter the answers and pick at least one correct answer

☐

Choice 1

1: Visibility of System Status

e.g.: Kampala

🎵

📎

🗑️

☐

Choice 2

2: Match Between the System and the Real World

e.g.: Brussels

🎵

📎

🗑️

☐

Choice 3

3: User Control and Freedom

🎵

📎

🗑️

☐

Choice 4

4: Consistency and Standards

🎵

📎

🗑️

☐

Choice 5

5: Error Prevention

🎵

📎

🗑️

☐

Choice 6

🎵

📎

🗑️

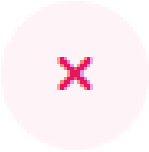
+ New choice

Cancel

 Save

 Display now





No correct answer

You have to check at least one correct answer. If you do not want to specify a correct answer, you should create a Poll instead.

Multiple answers

Participants can select more than one answer

Allow comments

Allow participants to add comments to explain their answer

Timer

If checked, a timer will automatically start when a question is displayed.

Create a Poll

Enter the question you want to ask your audience

Question title

Which heuristics would you like to discuss more?

e.g.: Do you think we need to do more to fight climate change?

Answers

Enter the answers your audience can vote for

Choice 1

1: Visibility of System Status

e.g.: Yes

Choice 2

2: Match Between the System and the Real World

e.g.: No

Choice 3

3: User Control and Freedom

Choice 4

4: Consistency and Standards

Choice 5

5: Error Prevention

Choice 6

+ New choice

Poll

Multiple choice

Word Cloud

Open question

Framework

Spin the wheel

Poll

Timer

Slide

Brainstorming

Matching

Find on image

Fill in the Blanks

Label an image

Drag and drop

Rating

Audio / Video

Sorting

Find a number

Prioritization

?

10. Help and Documentation

- Ensure that the help documentation is easy to [search](#).
- Whenever possible, present the documentation in context right at the moment that the user requires it.
- List concrete steps to be carried out.

- Proactive help

- Templates
- Tooltips
- Wizards

- Reactive help

- Documentation

<https://www.nngroup.com/articles/help-and-documentation/>

Choose a project template



Any questions?

Activity

Activity

- Review the example of the technology or interface you experienced difficulties with last week
- What were the issues you have encountered?
- How can these issues be mapped to Nielsen's Heuristics?

homework

- Install [Mindly](#)
- Create a mindmap/network
- Example: HCI network based on course content so far
- HCI
 - Accessibility
 - Accessibility Factors
 - Inclusive Design
 - Expert Evaluation
 - Heuristic Evaluation
 - Cognitive Walkthrough
- Explore the interface
 - 2 usability issues
 - 2 things that work well

next steps

- Wednesday, Sept. 24; 2-3pm

~~13 – 15 South College Street, Newhaven Lecture Theatre~~

**MST G.07 Meadows Lecture Theatre -
Doorway 4 (Medical School, Teviot)**

- Usability heuristics vs. cognitive walkthroughs
- Sign-up for a group!! [by Wednesday]
 - Form a group and self-enroll on Learn OR
 - [Fill out this form](#) to be assigned a group