

# INFO360: Design Thinking

Methods for Design, Prototyping and Evaluating Information Systems

Lecture 01:  
Introduction

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# Who we are

## **Nigini Oliveira**

Studied computer science in Brazil

PhD in CS in 2017

Postdoc in CS here at UW

Work in cross-cultural collaboration and online experimentation

Likes literature and long distance bike rides



# Who we are

## **Sonam Samel**

2nd year HCDE Masters student.

BFA in Applied art and a M.Des in Graphic design.

UI/UX Design with companies like Nokia research center, Zynga Games and Walt Disney

I wish to explore the wearable tech medium.

I like clean designs and in my free time I enjoy hand making jewelry and photography.



# HCI at UW

## Cross-Campus HCI Efforts

DUB - weekly seminar at noon on Wednesdays

MHCID

## My Teaching

CSE 440: Introduction to HCI

INFO 360: Design Thinking

## Back in Brazil


All sorts of Software Engineering courses.

What is this course about?




# Once upon a time...

[Our Experiments](#) [Findings & Data Sets](#) [Blog](#) [For Researchers](#) [About Us](#) [English ▾](#)

 **LAB IN THE WILD**


**232**  
participating countries



**Test your reading speed!**

Find out how your reading speed and comprehension compares to others by taking this test! The test takes around 12 minutes.


[Participate now!](#)



**What is your privacy profile?**

Find out how your data sharing behavior compares to others and learn about the Internet of Things. This study takes around 10 minutes.

[Participate now!](#)



**What is your problem solving score?**

How well do you solve new problems? Test your problem solving abilities! This study will take around 10 minutes.

[Participate now!](#)

# We use personalized results...

## Have a look at your results!

How good are you at data analysis?



Professional: You're ready to mentor others.

You are so close to the top! You accurately interpreted most of the tasks. With a little effort, you could surpass the rest of the field.

How do you compare?

You got a score of 90%. You did better than 100% of test takers.

# How can we help researchers?

[Study Example](#)[Study Template](#)[About](#)

## What is a common experiment flow for LabintheWild experiments?

LabintheWild experiments can be accessed via the LabintheWild homepage (see left image below) or directly through a link to a specific experiment. All of our experiments start with an informed consent page and end with personalized results. The order of the remaining parts largely depends on the type of experiment. The image below shows a very common order.

```
graph LR; A[LabintheWild Front Page] --> B[Informed Consent]; B --> C[Demographics Questionnaire]; C --> D[Trials]; D --> E[Breakdown of Results];
```

litw-template-package

- Source
- Commits
- Branches
- Pull requests
- Pipelines
- Deployments
- Issues
- Downloads
- Boards
- Settings

Lab in the Wild - CORE Team / LITW-CORE

## litw-template-package

Clone ...

Here's where you'll find this repository's source files. To give your users an idea of what they'll find here, [add a description to your repository](#).

master

Filter files

/

Name	Size	Last commit	Message
docs		2018-09-10	Merge master to retrieve_summary_database branch.
template		2018-09-10	Merge branch 'master' into retrieve_summary_database
.gitignore	100 B	2018-07-12	.gitignore edited online with Bitbucket - added config.php
README.md	2.15 KB	2018-09-10	Merge master to retrieve_summary_database branch.

### README.md

## LabintheWild Study Templates

This repository bundles together the LabintheWild template study and instructions to guide new developers to create their own online studies.



# We created Digestif...

The screenshot displays the Digestif web application interface, which is a tool for creating online studies. The interface is divided into several sections:

- Navigation Bar:** Includes links for "Study Example", "Study Template", and "About".
- Header:** Features the "digestif" logo, "Explore", and "Create" buttons. A red badge indicates "You've ♥'d 8 blocks!".
- Left Panel (Blocks):** Titled "♥'d Blocks", it lists available blocks for creating a page: "Experimental Design (1)", "Feedback (1)", and "Other Studies". The "Feedback (1)" block is expanded, showing a survey form with questions like "Are you already a participant in Cat Tracker?", "How did you find out about this survey?", and "Do you have any other comments?". Below this is a "Personality Survey" block.
- Right Panel (Your Page!):** Titled "Your Page!", it shows a preview of the study page. It includes a "Download" button to get an HTML of the page. The preview shows a header with the text "I'm your curious participant! Can I understand you?" and a green profile icon. Below this is a text editor with a toolbar (Normal, Bold, Italic, Underline, Link, Code) and a text area containing the text "This is an empty block. Fill it in however you'd like!".
- Bottom Panel:** Contains a "Settings" button and a "README.md" section titled "LabintheWild Study Templates". The README text states: "This repository bundles together the LabintheWild template study and instructions to guide new developers to create their own online studies."

In the background, a blurred image of a LabintheWild homepage is visible, showing a flowchart of the study process: "LabintheWild Front Page" leads to "Informed Consent".

# We created Digestif...

The image shows a screenshot of the Digestif web application, which is a tool for creating online studies. The interface is divided into several sections:

- Top Navigation:** Includes links for "Study Example", "Study Template", and "About".
- Header:** Displays the "digestif" logo, "Explore", and "Create" buttons. A red badge indicates "You've ♥'d 8 blocks!".
- Main Content Area:**
  - ♥'d Blocks:** A section titled "Use these blocks to create your page" showing a list of available blocks: "Experimental Design (1)", "Feedback (1)", and "Other Studies".
  - Your Page!** A section titled "Drop and edit your blocks here" showing a preview of the study page. It includes a "Download" button and a "Get an HTML of your page" link. The preview shows a survey titled "Personality Survey" with questions like "Are you already a participant in Cat Tracker?" and "How did you find out about this survey?".
  - Right Sidebar:** Contains a "Clone" button and a "..." menu.
- Footer:** Includes a "Settings" link and a "README.md" section titled "LabintheWild Study Templates". The README text states: "This repository bundles together the LabintheWild template study and instructions to guide new developers to create their own online studies."

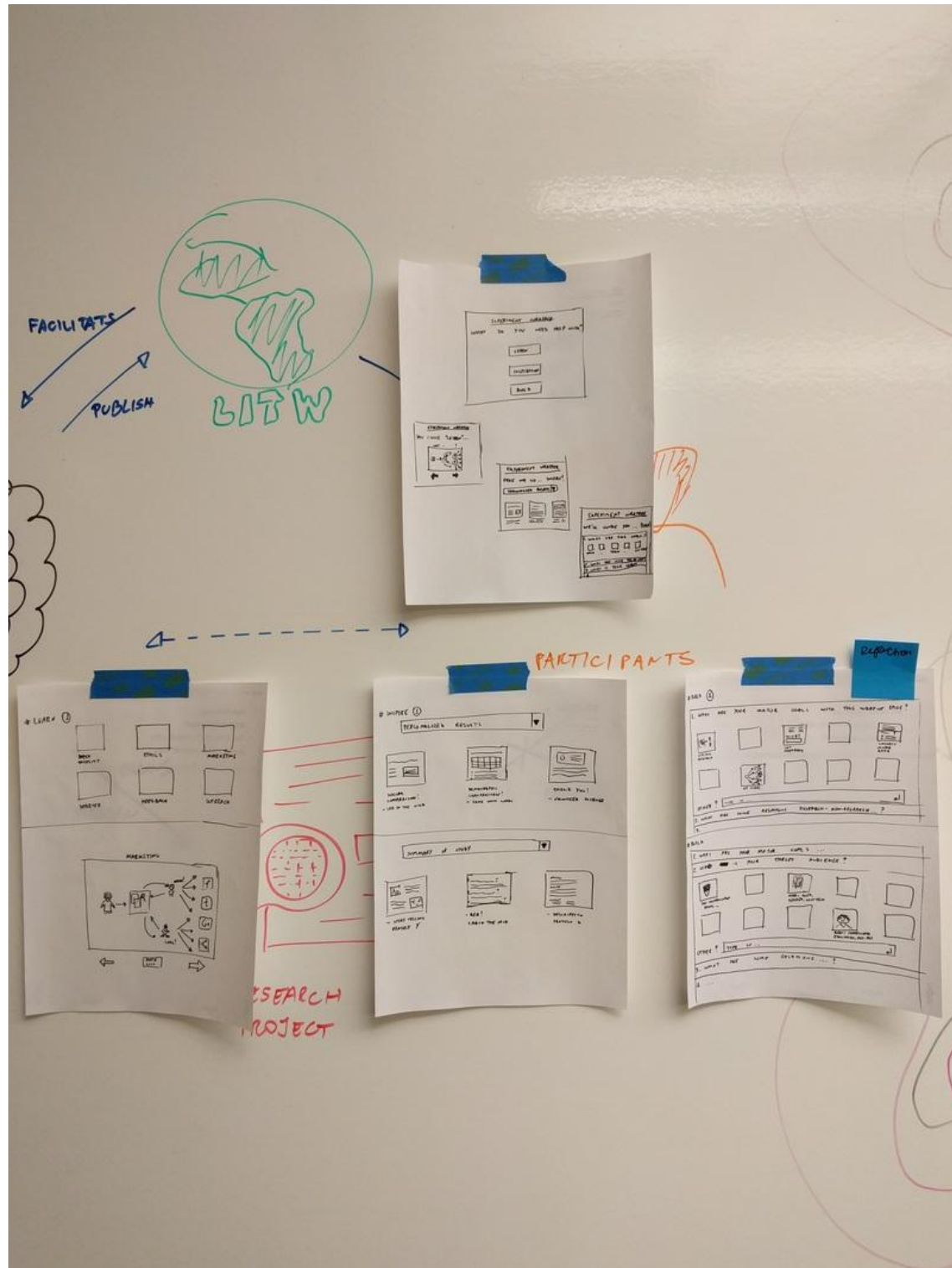
A large, stylized "No!" is overlaid on the center of the image, indicating that the Digestif tool is not the solution being presented.

# Learn about the problem.



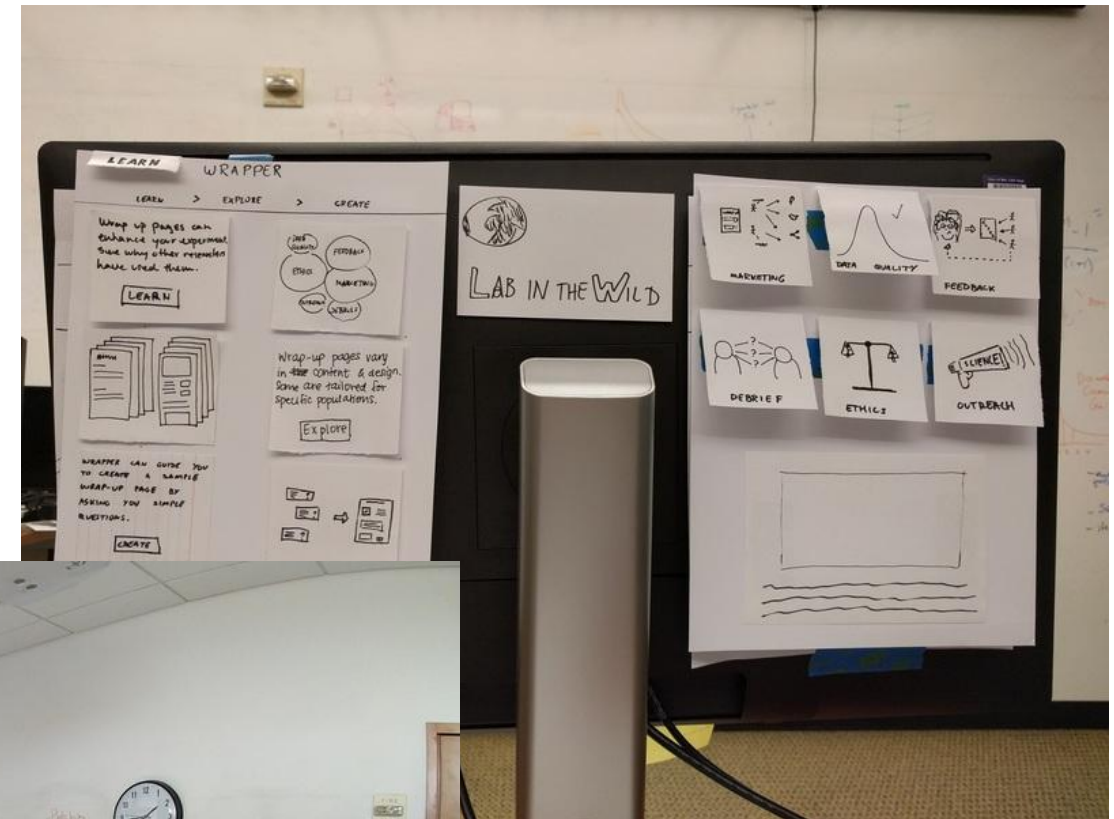


# Inventing (many, many) solutions...





# Prototyping and testing...



# Not easy to get here!

The image displays three overlapping screenshots of the Digestif web application interface, illustrating the process of exploring and creating content.

**Top Screenshot (Explore View):** Shows the "digestif" logo, navigation links "Explore" and "Create", and a red notification bar stating "You've ♥'d 0 blocks!". The main content area includes a definition of "digestif" as a tool for scientific learning, a description of its use in research, and buttons for "Explore" and "Create".

**Middle Screenshot (Create View):** Shows the "digestif" logo, navigation links "Explore" and "Create", and a red notification bar stating "You've ♥'d 8 blocks!". The main content area includes a description of how blocks and pages are used, a "View by Block" button, and a list of available blocks: "Acknowledgments", "Experimental Design", "Evaluation Study", and "Movie Recommendation Study".

**Bottom Screenshot (Create View):** Shows the "digestif" logo, navigation links "Explore" and "Create", and a red notification bar stating "You've ♥'d 8 blocks!". The main content area includes a "♥'d Blocks" section with "Experimental Design (1)" and "Feedback (1)", a "Your Page!" section with a "Download" button, and a "Personality Survey" block. The "Personality Survey" block contains a form with questions: "Are you already a participant in Cat Tracker?", "How did you find out about this survey?", and "Do you have any other comments?". The "Your Page!" section includes a text editor with a toolbar (Normal, Bold, Italic, Underline, Link, Code) and a preview of the page content: "I'm your curious participant! Can I understand you?" and "Thank you for completing this survey! Your answers will help us to understand domestic cats in the United States."

# What is this course about?

It is about reading, discussing, examining, and practicing techniques that build this design process.

# Activity (10 minutes)

In groups of 2...

Redesign bulky headphones:

- What problems do you want to solve?
- How does your design solve them?

Make sure you are either addressing a **novel problem** (something nobody has tackled before) or you are contributing a **novel solution**!

Sketch out your design on a piece of paper and be prepared to show it off to the class!





What problems did you choose to solve?

What problems did you choose not to solve?

What's your solution to those problems?



What process did you use for this activity?

What was hard and what was easy?

Anything you would do differently if you were to do this again?



“[Design is] a plan for arranging elements in such a way as to best accomplish a particular **purpose.**” Charles Eames



# Core design skills

To **synthesize** a solution from all the relevant constraints

To **frame**, or reframe, the problem and objective

To create and **envision** alternatives

To **select** from those alternatives

To visualize and **prototype** the intended solution

Bill Moggridge



# Iterative Human-Centered Design

This is a course about process

This is **not** an implementation course!

This is also **not** a course about “good” interfaces or rules that you should follow in design

Rapid **iteration and exploration** is the most important and effective tool for design

# Learning Objectives

Understand what human-computer interaction and interaction design are

Develop skills on using design methods

Learn how to create design artifacts: scenarios, storyboards, prototypes

Think critically about design solutions

Learn how to do user testing

Communicate effective design critiques and defense

# Course structure

## Some **theory**

- Lectures and readings

## Some **practice**

- In-class activities
- A cool project
- Participation is a critical component of the course

This course is designed around **learning together!**

Let's see how it will work: <http://info360.nigini.me>

Ask me something!