# Teaching Plan

- ✓ All slides are available on VISION
- ✓ Study Wednesday slides in advance
- ✓ Mondays: Redesigning a "worst" website
- ✓ Wednesdays: Answering your Questions
- ✓ Exam questions will come from the slides

<sup>&</sup>quot;The only way to do great work is to love what you do" – Steve Jobs

# Web Design



### **Theory**

- 1. Information Architecture (IA)
- 2. User eXperience (UX)
- 3. UI<sup>(1)</sup> Design Principles
- 4. Art & Graphic Design



### **Technology**

- 1. HTML<sup>(2)</sup>
- 2. CSS<sup>(3)</sup>
- 3. JavaScript (JS)
- 4. Databases

<sup>(1)</sup>UI: User Interface

<sup>(2)</sup>HTML: Hypertext Markup Language

(3)CSS: Cascading Style Sheets

# Web Design

- ✓ Web Design Overview
- ✓ Information Architecture (IA)
- ✓ Coursework 1 & 1st Lab



### Introduction

Web design is the process of creating the **User Interface** (look & feel) of a website.

From the understanding and planning to the sketching and coding of its components and features.

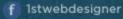


Design is not just what it looks like and feels like.

Design is how it works.

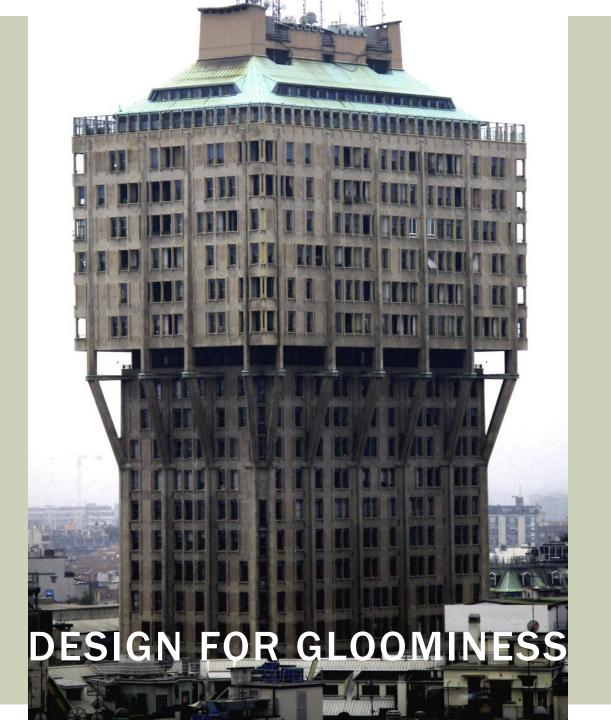
**STEVE JOBS** 





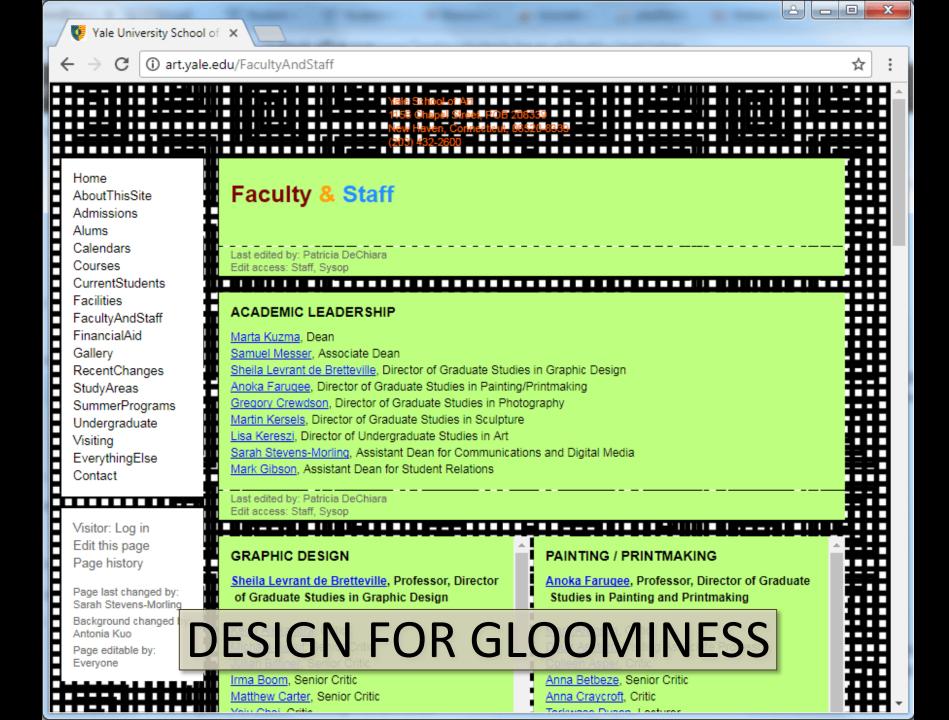


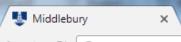
- Why IA is important?
- What is IA?
- How do you implement IA?

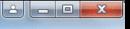


## DESIGN FOR HAPPINESS











i www.middlebury.edu/#story556062





# Middlebury

#### Quidditch Is Back!





Admissions

Academics

Student Life

Athletics

Arts

Middlebury International

About Middlebury

Sustainability

Giving

Newsroom

Calendar of Events

Offices & Services

Middlebury L Middlebury Schoo

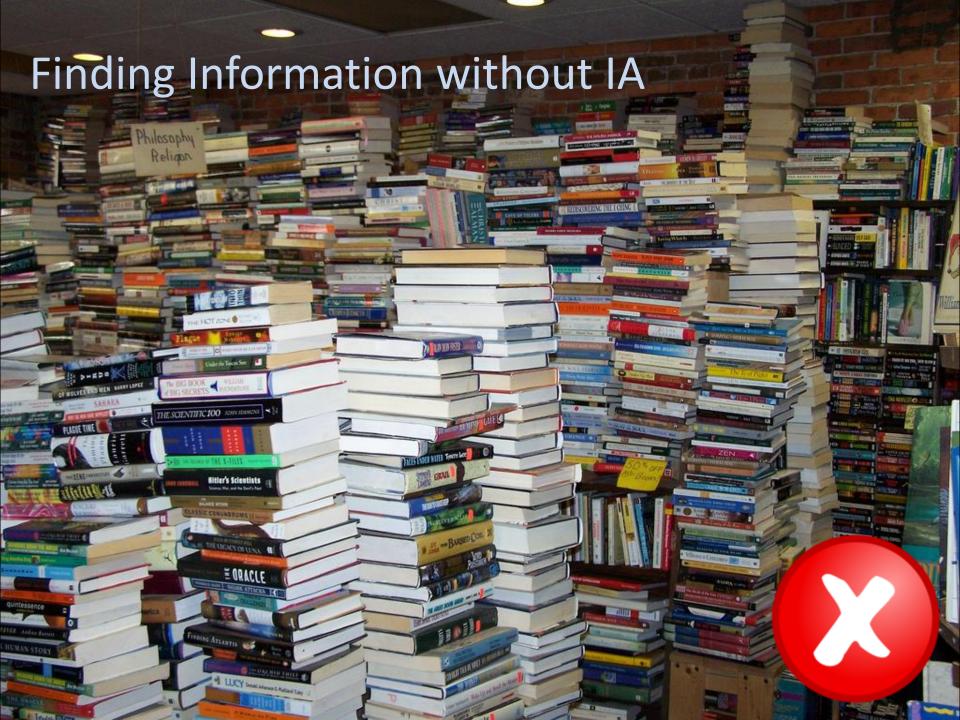
# DESIGN FOR HAPPINESS

Conferences dies at Monterey

#### Why IA is important?

Designing a website is like designing a building. The architectural analogy between those two entities (website and building) is evident because their common complex and multidimensional nature of their information spaces that are created for people. Like buildings, websites have architectures. Therefore, in some way the aim, objectives and work of a web designer are similar to the ones of an architecture designing building. Like buildings, the design of a website is a paramount factor for the happiness of the people who are going to use it and for its own success or dismissal. Good web designs provide logical structures that help us find answers and complete our tasks. Bad designs produce frustration through them we can't find the product we need; we are distracted by bizarre web elements obstructing our navigation. They remind us of buildings with dangerous stairs, with no counter space, with windows you can't open, and with misleading signs. Bad buildings and bad web sites share similar architectural roots. Why? First, many architects don't inhabit the structures they design. They don't fully understand the needs of their customers, and they're not around to suffer the long-term consequences of their poor designs. Second, creating structures to stand the test of time is really difficult. Things that are used by people will need changes. The desire for stability must be balanced against the value of flexibility and scalability. Third, architects are often faced with complex requirements, competing goals, and high levels of ambiguity. Frequently web designers and architects have the feeling that their own customers don't really know what they want. Finally, transforming this chaos into order is extremely hard work that requires vision, perspective, expertise and tools. The architects have tools and have completed full degrees in designing building. What is the tool of web designers? They have User Experience (UX). An umbrella term which encompasses:

- ✓ Information Architecture (IA)
- ✓ UX engineering
- ✓ Graphic Design
- ✓ Interaction Design
- ✓ Web Design Technologies

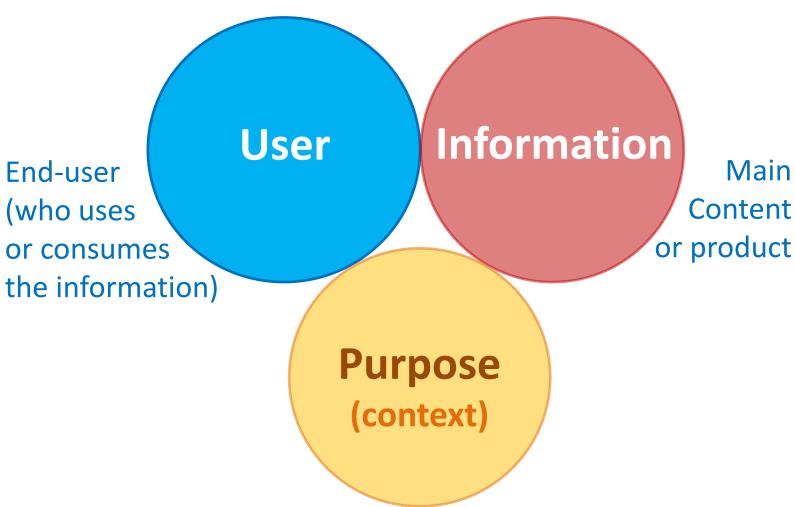




#### **IA Formal Definitions**

- ✓ The structural identification and organisation of information.
- ✓ The art and science of shaping information products and experiences to support User eXperience (UX).
- ✓ An emerging discipline focused on bringing Best Practices of graphic design and architecture to the digital context.
- ✓ The combination of organisation, labelling, navigation and searching to find information on websites.

# IA Analysis to identify



Owner (who profits from the use of the information)

### **Information**

Information Architecture is different to Data Mining and Knowledge Management

✓ Data is raw facts and figures.

✓ Information is meaningful processeddata within some context and organisation.

✓ Knowledge is the interpretation, experiences and understanding extracted from information.

knowledge information data

#### Information

Information architecture is different to data and knowledge management. Data is facts and figures. Knowledge is the data, experiences, understanding in people's heads. Information is meaningful data within some context describing knowledge.

Structuring, organising, and labelling

It's what information architects do best. Structuring involves determining the appropriate sizes of information chunks in your site, and deciding how to relate them to one another. Organising involves grouping those components into meaningful and distinctive categories. Labelling means figuring out what to call those categories and creating the navigation links that lead to them.

#### Finding and managing

Findability is a critical success factor for overall usability. If users can't find what they need through some combination of browsing, searching, and asking, then the site fails. But user-centred design isn't enough. IA must balance the needs of users with the goals of the business.

#### Art and science

Disciplines such as psychology, usability engineering and ethnography are helping to bring the rigor of the scientific method to the analysis of users' needs and information seeking behaviours. We're increasingly able to study patterns of usage and subsequently make improvements to our web sites.

However, IA is not an exact science. In practice, IA cannot be reduced to numbers; there's too much ambiguity and complexity. Information architects must rely on experience, intuition, and creativity. We must be willing to take risks and trust our intuition. This is the "art" of information architecture.

Mapping the boundaries of IA is not easy, but some things are clearly not information architecture:

- Graphic design is NOT information architecture.
- Software development is NOT information architecture.
- Usability engineering is NOT information architecture.

### IA implementation (in practice)

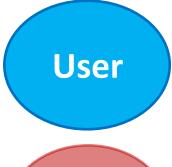
Strategies have been proposed to implement IA, one of them ["The Elements of User Experience" by J.J. Garrett, 2002b] has widely influenced web design practices. Taking into consideration those approaches we propose an implementation plan of four stages to use IA in practice, as follows:

- 1. Investigation Stage: Identification of Data, User and Owner as well as understanding their aims, expectations, objectives and needs.
- 2. Specification stage: Gathering and formulating features and their functional specifications as well as information requirements.
- 3. Wireframing stage: Providing structure and layout to the site and implementing relationships to enable flow of information to the satisfaction of user and owners.
- 4. Visual Prototyping stage: Bringing the information and the features together as well as their functionality in a testable platform so owners and users can evaluate the design.

1

Identification of the Information, User and Purpose

https://www.dropbox.com/business







Work better, more safely, together.

Dropbox Business simplifies your work, with a central place to access and share files.

Try free for 30 days

or purchase now

No credit card needed

1

#### Identification of the Information, User and Purpose



#### **Understanding user needs**

"User needs" are the needs that a person has of a service, and which that service must satisfy for the user to get the right outcome for them.

- who your main or likely users are
- what they're trying to do/achieve
- the problems or frustrations they experience

You must satisfy your main user's needs but you must understand the needs of all kinds of users, not just "typical" users. Pay also attention to users who have problems using existing services or getting the right outcome for them.

#### Writing user needs

User needs are usually written in the format:

As a... [which type of user has this need?]

I need/want/expect to... [what does the user want to do?]

So that... [why does the user want to do this?]

When... [what triggers the user's need?]

Because... [is the user constrained by any circumstances?]

#### **Example:**

As a [holidaymaker]

I need [a typical restaurant]

So that [I can enjoy a traditional local cuisine]

#### How to research

- interviewing and observing actual or likely users
- talking to people inside and outside your organisation who work with actual or likely users

1

#### Identification of the Information, User and Purpose



#### Websites' purposes

A website is not really about the business' purpose.

But it is not about the owner or their company only.

A website is about the business' users and their needs. And then communicating the business' solution/offering in a clear, specific and persuasive manner to their needs.

#### **Business Purposes:**

- Describing their Expertise
- Building their Reputation
- Generating Leads
- Nurturing Sales
- Providing a Service
- Providing Information

#### It is about making prospects

There is a specific person with a specific problem looking to fill a specific need. They came from somewhere, (be it Google, referral, etc.). And they are looking for something (trying to solve a certain problem). Finally, there is a next step they want to take (fixing the problem they have, gathering more information, evaluate different options, etc...).

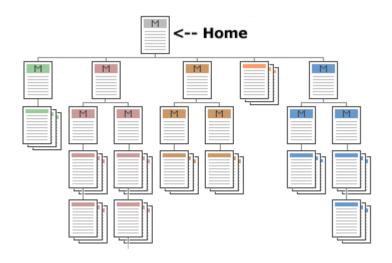
Here is the challenge when it comes to designing a website. First, you need to recognize that there is more than one type of person coming to the site. Second that each person comes with different needs, looking to solve different problems.

The goal then is identifying who are the different user types who are coming to your website. Then to identify what specifically are the problems they are trying to solve. And then to make sure each user's needs are matched with the business's goals.

Therefore, the purpose of a website is to turn visitors into prospects. And the way to do this is to identify the major user types visiting your site, speak to their needs and give them a clear action step to take next.

### Structuring, organising, and labelling

It's what information architects do best. Structuring involves determining the appropriate sizes of information chunks in your site, and deciding how to relate them to one another. Organising involves grouping those components into meaningful and distinctive categories. Labelling means figuring out what to call those categories and creating the navigation links that lead to them.



### Finding and managing information

Findability is a critical success factor for UX.



### **Browse**











Search







### Finding and managing information

Findability is a critical success factor for UX. If users can't find what they need through some combination of browsing, searching, and asking, then the site fails. But IA must also balance the needs of users with the goals of the business.

### **Browse**

3











Search







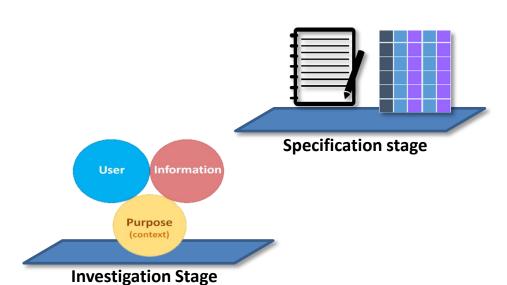
## IA is present in every stage of the Web Design process



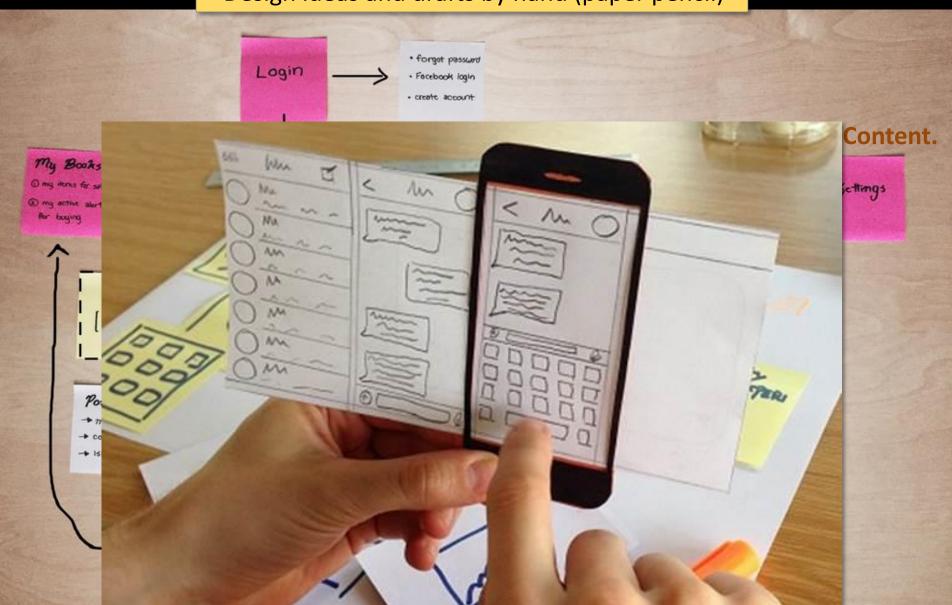
Visual prototype stage

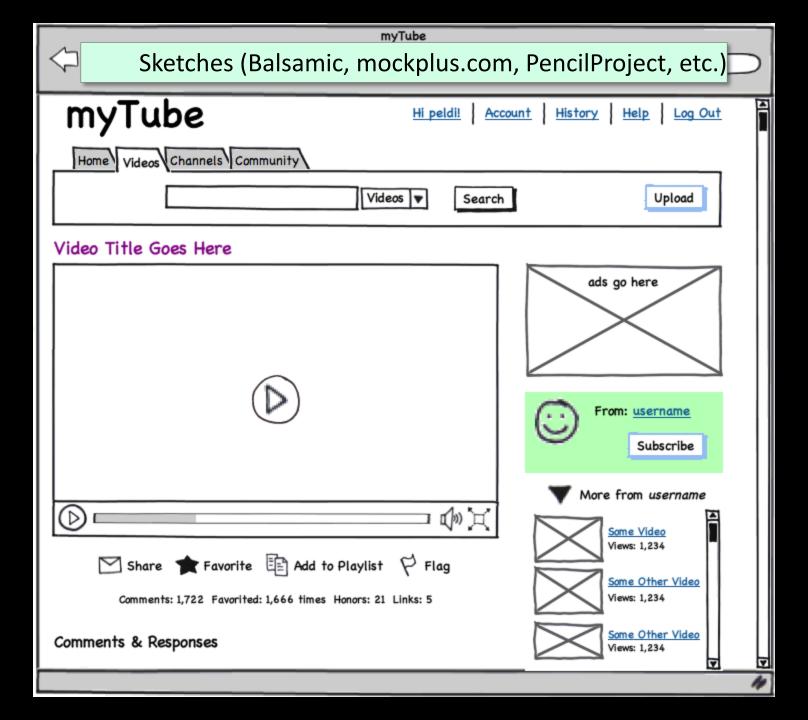


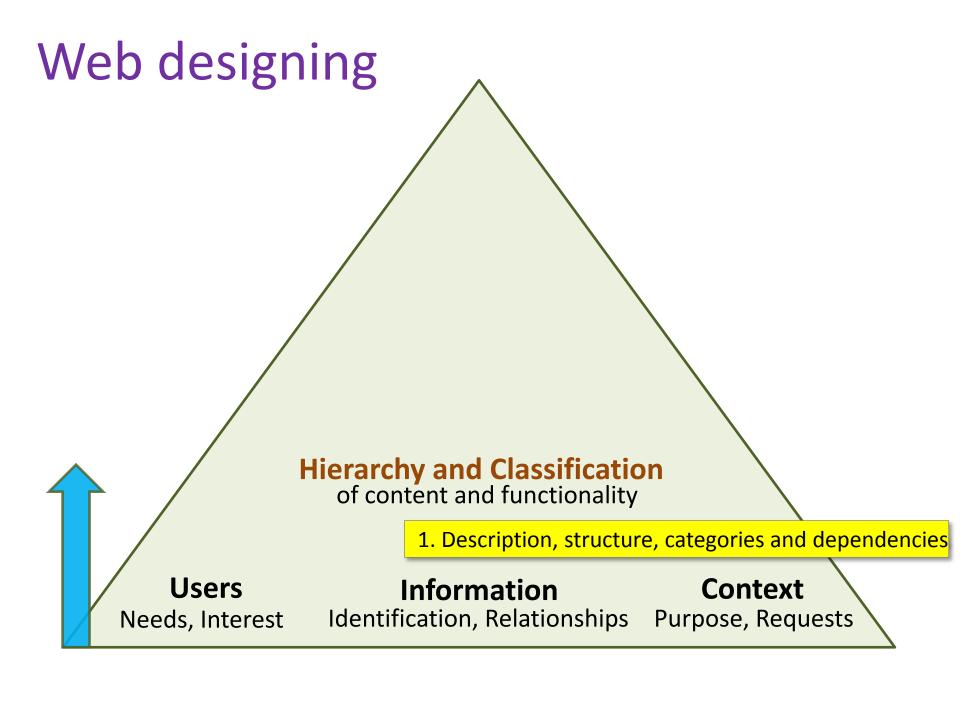
Wireframe stage

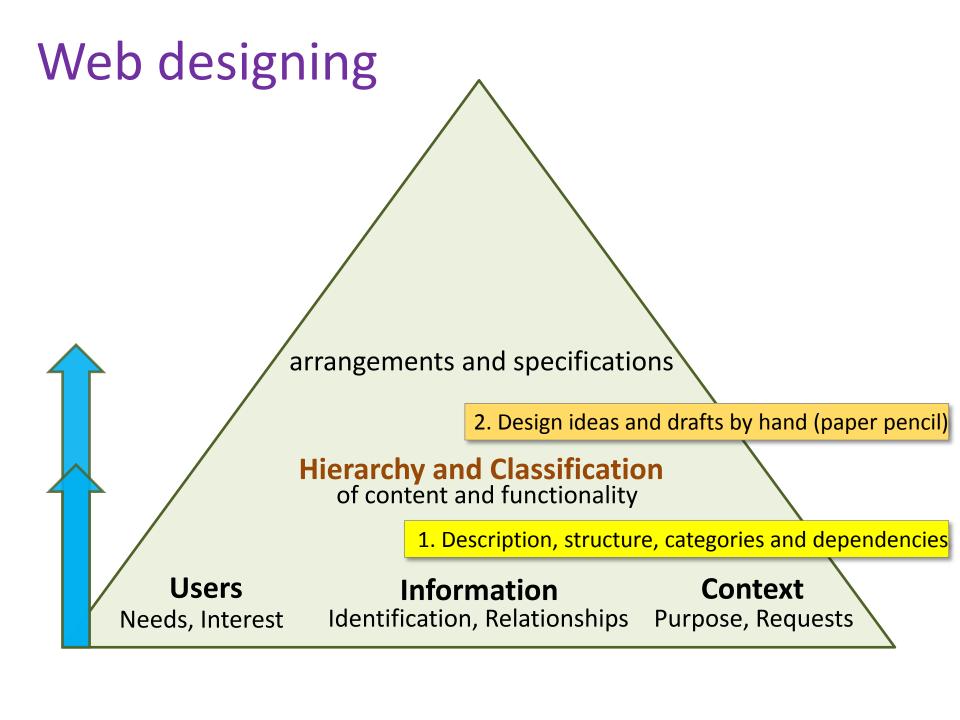


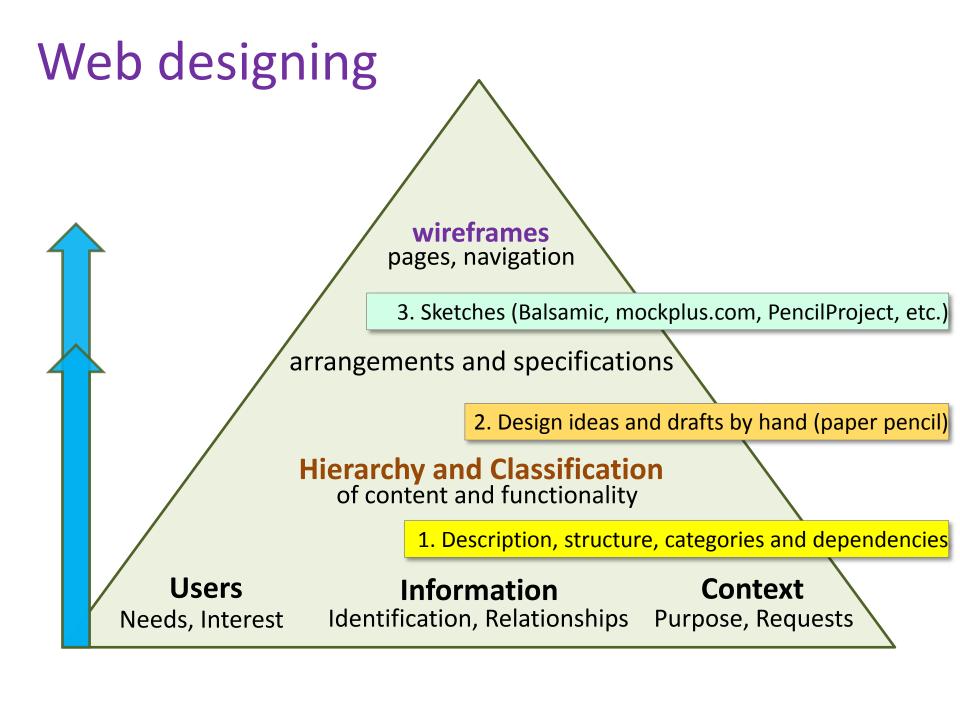
### Design ideas and drafts by hand (paper pencil)











Web designing prototype 4. HTML5, CSS3, JavaScript wireframes pages, navigation 3. Sketches (Balsamic, mockplus.com, PencilProject, etc.) arrangements and specifications 2. Design ideas and drafts by hand (paper pencil) **Hierarchy and Classification** of content and functionality 1. Description, structure, categories and dependencies **Users Information** Context Identification, Relationships Needs, Interest Purpose, Requests

# A good IA implementation makes easy to find information

✓ IA enables **Usability**: Building websites that are easy to use



Shopping Experience: best and worst performers (2014)

https://www.experienceux.co.uk/ux-research

### We need to form teams

- ✓ Self-selection via VISION
- ✓ Random selection (Monday 14<sup>th</sup> January at 16:00h)

### Teams need a common goal

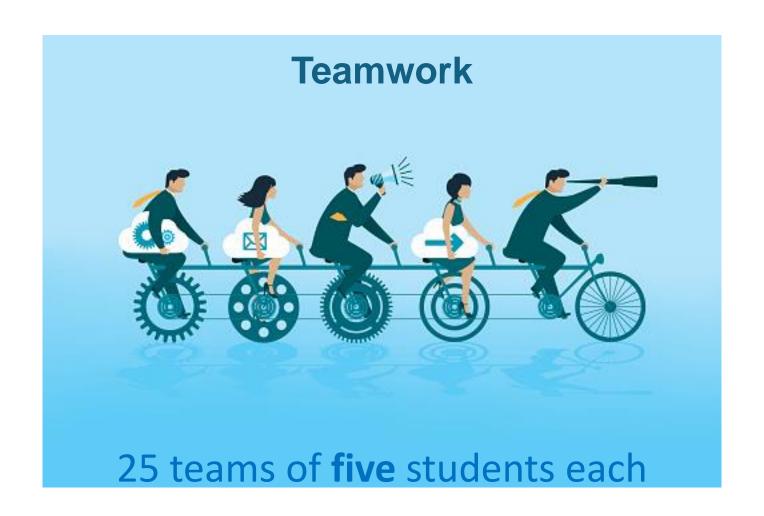
- ✓ Select one 'worst' website
- ✓ Re-design this 'worst' website as best you can

### Teamwork needs a fair assessment

- ✓ It's not always fair to give every team member the same mark
- ✓ Main concerns: lack of contribution bossiness
- ✓ We have an assessment and marking scheme that works

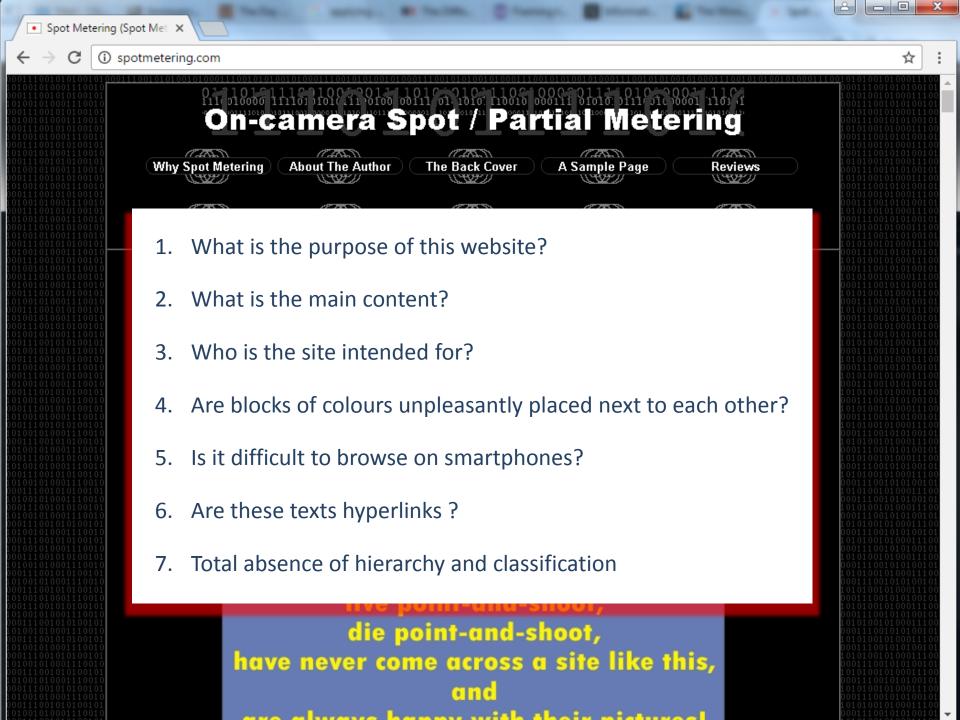


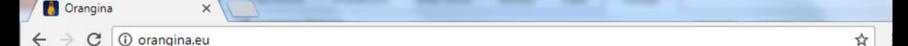
25 teams of **five** students each



Team: Work together to achieve a common goal and share responsibility for the team's success











HOME



HERITAGE



PRODUCTS



- 1. What is the purpose of this website?
- 2. Who is the site intended to be used by?
- 3. What are the main and secondary content?
- 4. How good is the Navigation, Hierarchy and Classification?
- 5. Does the website meet the graphic design standards?
- 6. Does the website follow the WI design principles?
- 7. Has the right technology been properly used?
- 8. How good is its overall UX?



## **Today Lab**

- ✓ Form your team and pick a "worst" website
- ✓ Complete and hand in your IA Task
- √ Ask Questions
- ✓ Get One Mark