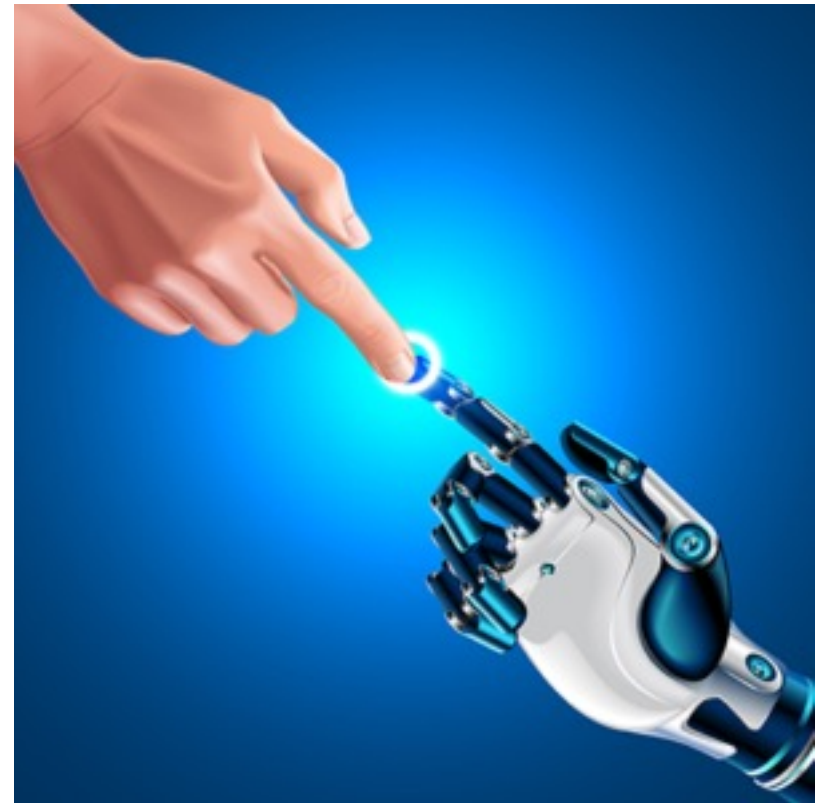# HUMAN COMPUTER INTERACTION

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LESSON PLAN

- **Usability's Return on Investment (ROI). The Financial Benefits of Usability.**

- **User Experience Research Techniques**

- **Competitive Research**

USER EXPERIENCE (UX)

USER EXPERIENCE

UX

UX is the experience a user gains when interacting with a product.

UX design is the process in which the designer tries to determine what this experience will be.

UX Researchers - What do users want, what motivates them, and what, on the contrary, averts?

CLASSIFICATION OF UX RESEARCH INTO THREE KEY METHODOLOGIES

- Observation: UX researchers observe the behavior of people interacting with the product to understand what they think about the product. Is it easy to use? Is their behavior consistent with what the UX developer intended?

- Understanding: UX researchers seek to understand the "mental model of consumers": what users know (or think they know) about your system. By accessing the site, people act according to their mental model. For example, clicking on the magnifying glass icon, they expect the search to open, on the logo - the home page.

- Analysis: UX researchers should not only be able to observe and understand consumer behavior, but also interpret it: identify patterns, patterns, trends and be able to convey them to the design team and developers.

COMMON RESEARCH PRACTICES

- Personal interviews: individual or with focus groups of several people. A UX researcher can ask predefined questions, conduct informal conversations, conduct ethnographic interviews, and observe participants in their natural setting to understand how they interact with a website or product.

- User surveys: online surveys of the target group help to get a large number of answers without special costs, but the disadvantage is that this method does not explain the behavior and does not allow asking clarifying questions.

- Usability tests: the target audience tests the prototypes live or online and comments on the process, noting the problem areas and the difficulties encountered.

COMMON RESEARCH PRACTICES

- SORTING CARDS - This technique was originally used in psychology long before the advent of UX. The meaning is simple - you need to write the words or sentences you need on the cards, and then invite users to classify them. In addition, you can say that they indicate categories. This is a good way to find out if your Information Architecture (IA) is moving in the right direction or if you need to test it for new products.

There are a variety of methods for sorting cards, and choosing the right one is important. Even better, there are many online tools that allow you to remotely sort cards in real time - this makes it possible to use this technique globally, and not just locally.

COMMON RESEARCH PRACTICES

- EXPERT REVIEW - An expert review consists of one "expert person" who studies the product through the user interface (User Interface (UI)) and seeks out problems with the design, accessibility and usability of the product. There is no specific algorithm that needs to be followed; expert review can vary from professional to professional and from product to product. The more experience the reviewer owns in usability and usability, the more valuable the project will be (in most cases).

- LOOKING MOVEMENT TRACKING - It is very useful to know where users are looking while using your system. This helps to design the user interface and understand how to prioritize certain types of content. This technique was developed for research in the field of science and has been widely used in medicine. Now it has gained popularity and has become effective enough to be used by the UX team.

COMMON RESEARCH PRACTICES

- FIELD RESEARCH - In fact, this is a series of techniques combined under a common heading. The bottom line is to go out and observe user behavior "in the field" so that it can be measured in the context of the actual use of the product. The technique includes: interviews, ethnographic research, observation method, as well as contextual research.

- Diary studies - Diary studies are suitable if you need to study how interest in a product changes over a period of time. A sufficient amount of time should be planned in advance for them.

COMMON RESEARCH PRACTICES

- User personas - is a fictional display of the ideal user. They focus on the goals of the user, the characteristics that they have, and the relationship that they display. They also learn what the user expects from the product.

User personalities are created from other forms of user research and thus offer a deep, lively portrait of real life that is easy to understand for the entire team when developing products. User personalities have a name and background. They inspire the imagination and remain focused on the user.

COMMON RESEARCH PRACTICES

- High-quality sorts - are useful for structuring information - for example, a catalog of goods on a site. Consider how to arrange it using this method. There are three types of sorting:

- open - the researcher selects about 50 different products in random order, the subject himself comes up with categories and distributes the goods according to them;

- closed - the subject compares the goods with existing categories; this option is useful when introducing a new section in the directory;

- reverse - the subject is looking for a specific product in the catalog; this method is suitable as a test for the adequacy of the structure.

- Feedback analysis - Also, do not neglect the feedback analysis: people can always tell something interesting about the use of the product.

SUCCESS FOR END USER IS...

A product's end-user experience is the cornerstone to its success.

A good user experience doesn't guarantee success, but a bad one nearly always leads quickly to failure.

Something is usable if it's functional, efficient, and desirable to its intendant audience.

…Functionality. A product is functional if the people using it consider it useful. The complexity and incomprehensibility of the interface conceals key features. (Ex. Programmable video recorders before advent of screen-based interfaces)

…Efficiency. People –on the whole –value their time, and so speed and ease of operation are important.

…Desirability. Is the least tangible aspect of a good user experience. Desire –imagined pleasure and happiness in using a product.

USABILITY AND DESIGN

Usability is good design. That's not to say that all good design is usable. The usability of a product is critical to its success.

USABILITY AND DESIGN

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

Steve Jobs
American entrepreneur and inventor
(1955-2011)

WHY ARE SOME OF THE FINANCIAL BENEFITS OF USABILITY?

Tangible/measurable benefits:

- Increasing website sales
- Better product reviews and recommendations
- Long-term brand-name recognition and reputation
- Customer loyalty
- Increased return from repeat customers and repeat sales, subsequent releases, and new product lines and families

Less tangible benefits:

- Reducing the risk of lawsuit and other legal action
- Reducing frustration and improving the motivation of product developers

RESEARCH PLANNING

Never research in a vacuum. Every piece of research is part of the ongoing project of understanding your user.

Making a research plan supports a project in several ways:

- It spells out the goals, sets up a schedule that helps you deliver results, and lets you avoid unnecessary, redundant, or hurried research.

- It can help you communicate about the research.

- It helps defeat the most frequent objection to doing user research: "We just don't have the time or budget".

A research plan consist of three major parts: why you're doing the research *(the goals)*, what you are doing and when you are doing it *(the schedule)*, and how much it's going to cost *(the budget)*.

WHAT IS A RESEARCH PLAN?

Document that addresses the following issues or questions:

- What questions are you trying to answer with the research?

- Why are these questions important?

- What techniques will you use to attempt to answer the questions?

- What resources will you use to attempt to answer the questions?

- Where will this activity take place, and who will do it?

HOW DO YOU SET YOUR RESEARCH GOALS?

- **Collecting issues and presenting them as goals**

    - Identifying the stakeholders (engineering, design, marketing, sales etc.), interviews.

- **Prioritize the goals**

    - Based on the interviews, you will have some idea of the corporate priorities with the respect to the goals you've defined.

- **Rewrite the goals as questions to be answered**

    - With the product goals in hand, start rewriting the goals raised during your interviews as user-specific questions or information to be gathered. The questions should be simple.

THE FORMAT OF THE PLAN

There are some things every research plan should do.

- Set expectations.

- Set schedules and responsibilities.

- Specify goals.

- Specify outputs.

WHAT GOES INTO A RESEARCH PLAN?

- Summary
- Research Issues
- Research Structure
  - Immediate User Research
  - Surveys
  - Usability Tests
  - Focus Groups or Interviews
  - Website Metrics Analysis
  - Observational Field Visits and Diary Studies
  - Schedule
  - Budget
  - Deliverable

BUDGETS

The budgets will be based on the cost of resources available to you, but it will probably come in four big chunks.

- People's time (including your time and the research team's time)

- Recruiting and incentive costs.

- Equipment costs.

- Travel costs.

WHY IS A COMPETITIVE ANALYSIS IMPORTANT?

- Important to understand and know your competition

- Critical in figuring out what will work for you and enabling you to design accordingly

- Can help you differentiate your design from the competition

WHEN DO YOU PERFORM A COMPETITIVE ANALYSIS?

- When working on and prioritizing requirements for your own design

- Before any major redesign

- When there is new competition or existing competition does something new or different

HOW DO YOU PERFORM A COMPETITIVE ANALYSIS?

1. Identify the competition

2. Profile the competition

3. Define a set of key dimensions for comparison

4. Compare along key dimensions

5. Analyze the results

6. Recommend subsequent action

IDENTIFY THE COMPETITION

- When competition isn't clear:
    - Perform internet searches
    - Talk to users, friends, colleagues, etc.
    - Use other user experience techniques such as surveys and focus groups

- Prioritize your competitors
    - Direct rivals
    - Secondary rivals
    - Those who only compete with a portion of the client's product or offerings

PROFILE THE COMPETITION

- Describe target user population for each competitor

- Can include information such as:
    - How the competitor's product or website differs from yours
    - Reasons a user might chooses a competitor's product over yours

DEFINE A SET OF KEY DIMENSIONS FOR COMPARISON

- Define the dimensions or criteria for your comparison

- Identify the features, functions or attributes will you compare among the different sites

- Usually the most important features, functions, and attributes of your product or website

COMPARE ALONG KEY DIMENSIONS

- Analyze competitors':

  - Strengths and weaknesses

  - What do they do well and what features are well-received by their users?

  - What are some of the characteristics of the site's user experience?

ANALYZE THE RESULTS

- Can use a traditional comparison matrix along with the dimensions you defined

Or

- Describe the strengths and weaknesses of the competition, without necessarily using a matrix format

RECOMMEND SUBSEQUENT ACTION

- For things that were identified as strengths of the competition, what can you use and apply to your own design?

- For weaknesses and shortcomings, how can you avoid them in your work?

COMPARATIVE ANALYSIS AND USER EXPERIENCE TECHNIQUES

- User experience techniques that can contribute to your competitive analysis:

  - Recruiting participants

  - Interviews and observations

  - Focus groups

  - Usability tests

  - Surveys

END OF LECTURE