IIT ROORKEE

NPTEL ONLINE CERTIFICATION COURSE

INTRODUCTION TO INTERACTION DESIGN

Lecture 05

Conceptual Design (Part 01)

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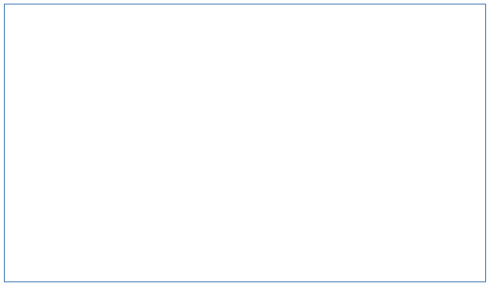
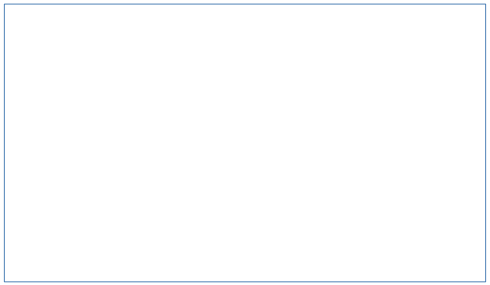
DEPARTMENT OF DESIGN

Conceptual Design I
Conceptualizing Interaction



When coming up with new ideas as part of a design project, it is important to conceptualize them in terms of what the proposed product will do.

Sometimes, this is referred to as creating a ***proof of concept***.



For example, we need to develop a concept for an app for a CityBus service in a metropolitan city

The first question to ask is:

- Why?
- What problem would this address?
- Who are the users?
- Does it actually solve any problem, or does it make accessing the service more complicated?

Designed by vectorjuice

In contrast, an actual problem identified might be the following: **“Passengers often face inconvenience due to the lack of a reliable system to monitor buses and their routes, which can leave them waiting at stops without any knowledge of their availability, timeliness, or alternate options to reach their intended destination”.**

Generating a set of research questions:

These might include the following:

- What are the demographics of the target users (age, occupation, income level)?
- What are the common challenges or frustrations users face when using the current CityBus service?
- Are there any specific user expectations or requests based on their experience with other transportation apps?
- How can the CityBus app integrate with other transportation modes (e.g., metro, bike-sharing) or popular navigation apps?
- What mobile platforms (iOS, Android) are most commonly used?
- What are the accessibility needs of users with disabilities or special requirements?

Claims and assumptions

When beginning a design project, it is important to be clear about the underlying assumptions and claims.

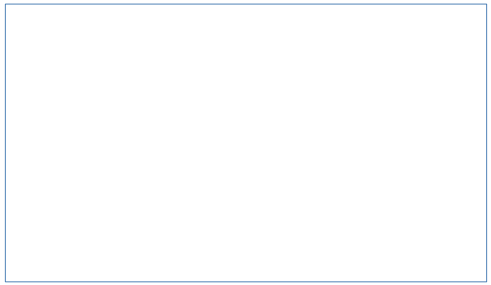
- By an assumption, we mean taking something for granted that requires further investigation.
- By a claim, we mean stating something to be true when it is still open to question.

Assumption: Users prefer mobile shopping apps over desktop websites for making online purchases.

Claim: Implementing personalized product recommendations increases customer engagement and conversion rates in e-commerce.

Research Questions:

1. How do users perceive and interact with mobile shopping apps compared to desktop websites?
2. What are the benefits and drawbacks of personalized product recommendations in e-commerce?



Claims and assumptions

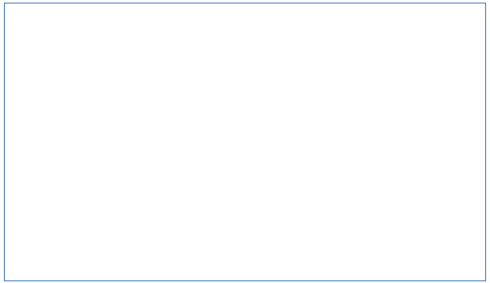
The following framework is intended to provide a set of core questions to aid design teams in this process:

- Are there problems with an existing product or user experience? If so, what are they?
- Why do you think there are problems?
- What evidence do you have to support the existence of these problems?
- How do you think your proposed design ideas might overcome these problems?

Conceptual Models

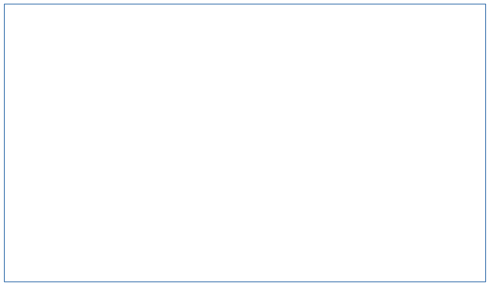
A *model* is a simplified description of a system or process that helps describe how it works

Jeff Johnson and Austin Henderson (2002) define a conceptual model as “a high-level description of how a system is organized and operates”

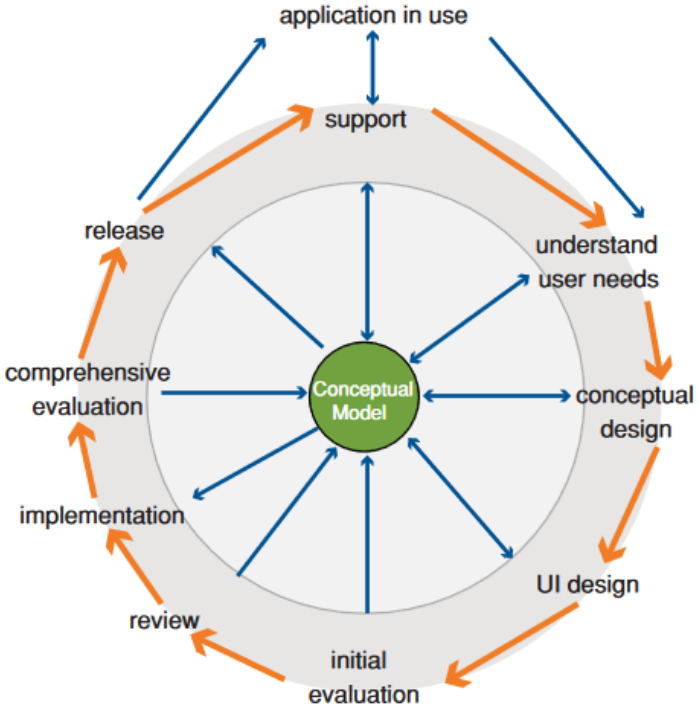


“conceptual model” and “conceptual design” should not be confused with the terms “concept design” or “design concept”

Those terms refer to an early brainstorming phase supported by quick prototypes, sketches, or story-boards, in order to inspire innovative, “out-of-the-box” solutions to design problems



Conceptual design's place in a user/task-centered design process.

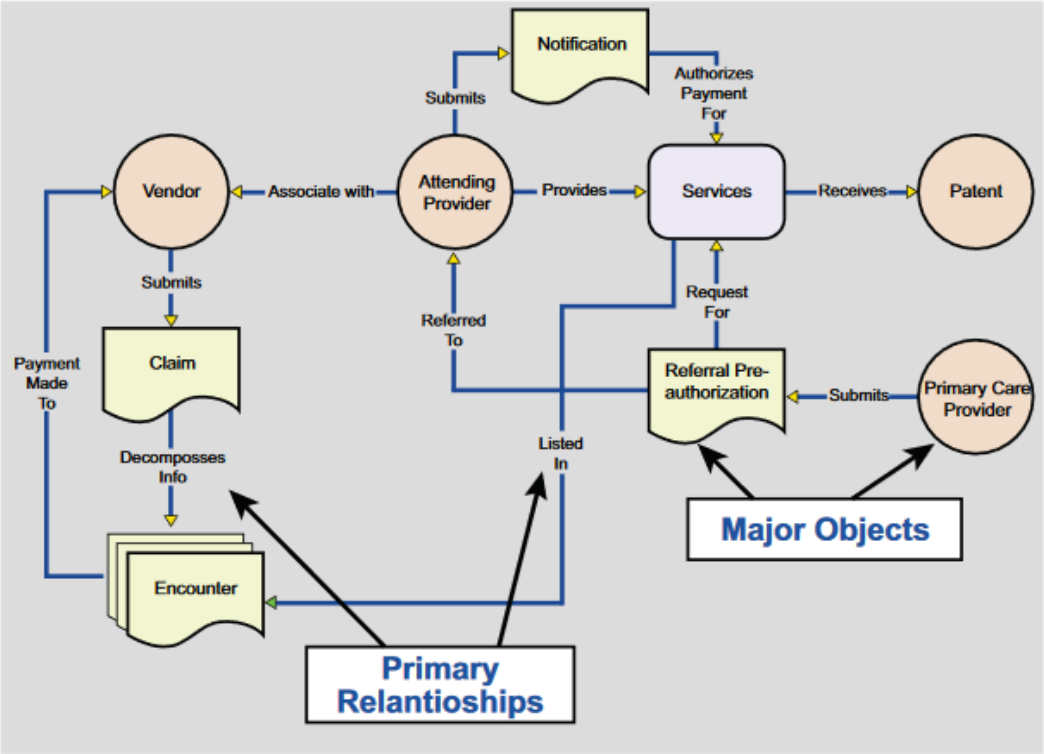


Simple

A conceptual model should be as simple as possible while providing the required functionality. “Less is more.”

Task-focused

Conceptual models should map as directly to the target task-domain as possible. This reduces users’ difficulty in translating concepts between those of their task and those of the application.



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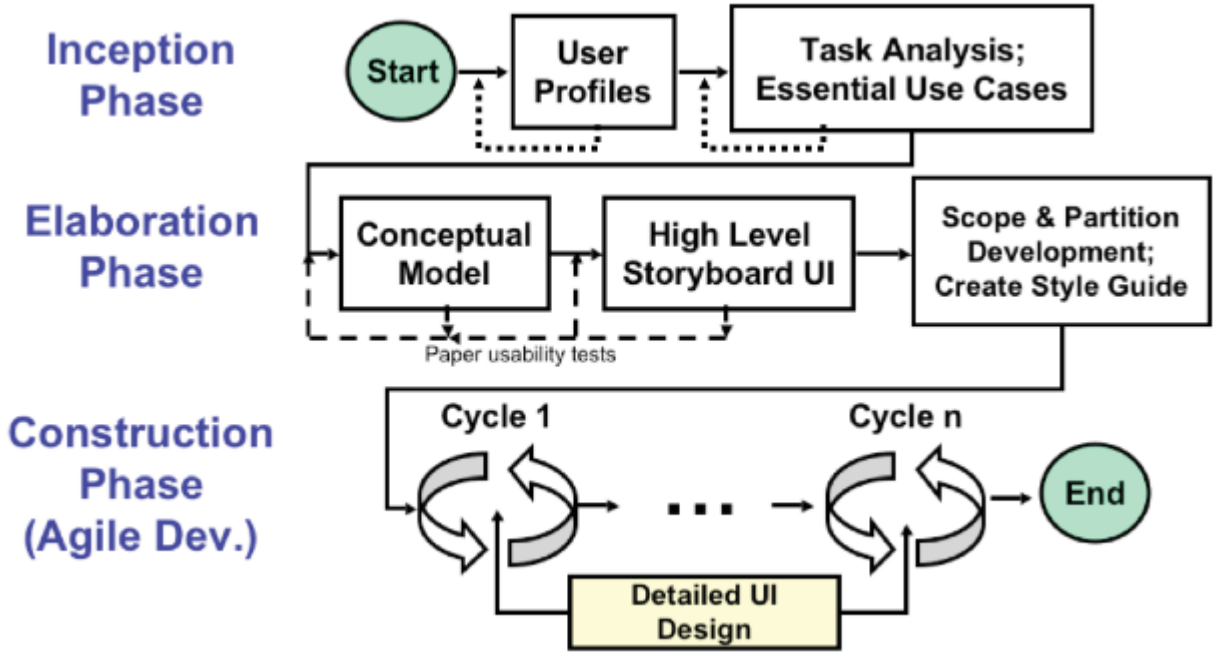

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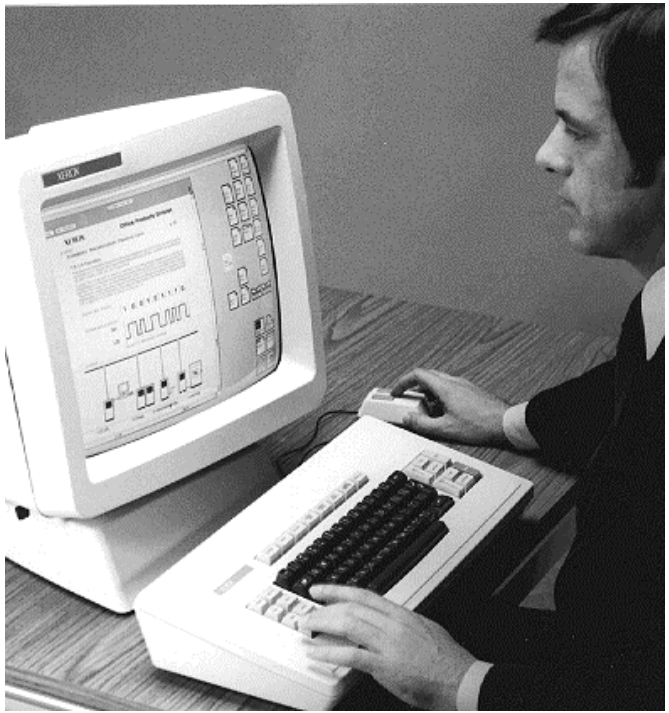
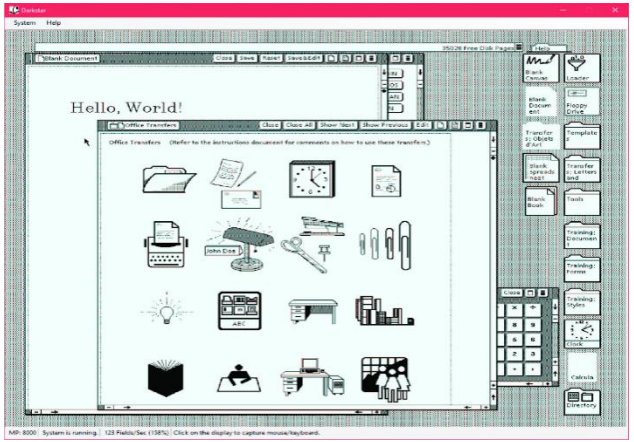
A classic Conceptual model: The Xerox Star





Thank You