Crafting the Compelling User Experience

Discovery Phase

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Overview of UCD Phases

Crafting the Compelling User Experience: Realization Phase
Overview of the Discovery Phase

- Who are the real users?
- What are the users' goals?
- How are the users' goals currently achieved?
- What does the system need to support?

User Class
User Goals
User Experience Use Cases

User's Current Task Models

Crafting the Compelling User Experience: Realization Phase
Teaching Example - Hotel Guest Services System w/requirement to add a web interface for guests at a later date

- Why use the Hotel task example?
  - Can be scoped to look at simple tasks
  - Familiar experience to most of us
  - Can easily use the web to do some research on the task set
- Not a real-world project (later in the day we’ll present a Case Study)
- Inputs: We wrote stories as input to the teaching example
Stories - For your reference

- **Vacationer: Making a Hotel Reservation task**
  - Jackie wants to take an out of town vacation in an area she doesn’t know
  - She wants to be pampered for her short 2 night stay
  - She normally stays a big hotel chains but she would consider an independent hotel with adequate references
  - She’s concerned with access from the airport, proximity to attractions and security
  - She’s found out names of the few hotels to consider and will be checking out the web sites of each

- **Starting point for our example:** Jackie has already decided which hotel to patronize

- See speaker notes or back of hand out for the remainder of the story
Stories - For your reference

- **Business Traveler: Making a Hotel Reservation task**
  - Robert needs to be in Boston for a 2-day business meeting
  - Robert travels frequently, typically several times a month
  - He has traveled to the same 7 cities for 4 years and has developed a routine
  - He has a favorite airline, hotel chains and hotel locations in each city
  - He usually rents a car but will take a taxi if the weather is going to be bad
  - He prefers to talk with a travel agent directly - he’s a stickler for having everything go exactly as planned

- **Starting point for our example: Robert calls his travel agent**

- See speaker notes or back of hand out for the remainder of the story
End Result - an output of part 2 of design phase
Who are the real users?

- **Purpose of modeling users:** To create precise definitions of user groups where the basis of distinction between each user group becomes a valuable distinction for DESIGN purposes (not for marketing, system or other purposes).

- **Definition of user:** Individuals that directly interact with the system.

- **UCD activities:**
  - Review business goals
  - Review market segmentation (customers and users are not always the same)
  - Perform user profiling activity with real users
  - Perform task analysis activity (this activity provides information that is captured in numerous ways throughout the OVID approach)
How do I create a User Class Diagram?

1: Review the written stories to identify nouns that are people

2: In Rose, create a new Class diagram in Discovery Phase section

3: Add actors (the stick figure symbol) to the diagram that correspond to the people found in the stories
How do I create a User Class Diagram?

- **4**: Describe “type of” relationship between appropriate actors

“Type of” relationship

- Guest
- Vacationer
- Business Traveler
- Reservation Clerk
There may be other types of users that a hotel guest services system may be concerned with as shown here but for teaching purposes we will stick to the two types of guests and the reservation clerk.
For each of actors included in the model that represents a user group, we want to capture information about them that will be useful to the design effort.
Crafting the Compelling User Experience: Realization Phase

User Class Diagram - Detailed Description of Each Class

1: Open specification (or right mouse-click) on any actor
2: Add an Attribute and a value for that attribute
What are the Users Goals?

- **Purpose of modeling users’ goals**: To define who has what goals in order to validate the distinctions between user groups and to place tasks in context of goals.
- **Definition of goal**: A result to be accomplished independent of how it is achieved.
- **Goal success criteria**: It is important to not only define the goals but also the success criteria for meeting each goal.
- **UCD activities**:
  - Same activities that informed User class diagram
How do I create a Users’ Goal diagram?

- **1:** Review written stories to identify candidate goal statements
- **2:** Create new Use Case diagram
- **3:** Add the Actors that we are working with to the diagram
- **4:** Create a new Class for the “obvious” goal
- **5:** Define the goal success criteria by adding attributes
Point of analysis: It doesn’t help the design effort very much if all the actors have the same goal, so we look to see if there are sub goals that will show a basis of distinction between user groups and that would define why users would want to use the system to perform certain tasks.
How do I create a Users’ Goal diagram?

1: Review stories again and probe for possible sub-goals
2: Add a new Class to describe candidate sub-goals and be sure to articulate the basis of distinction
3: Add specific goal success criteria to attribute
- **Purpose of modeling users current tasks:** To describe the way users go about doing their tasks today so that commonality across all tasks can be identified in order to define the user experience use cases. Describing tasks inherently describes users objects which lead to object modeling.

- **Definition of task:** A label for a set of activities performed to accomplish a goal.

- **UCD activities:**
  - Same activities that informed Users’ Goal diagram

- **Elements of a task model:**
  - Starting state
  - Activities (including points of pain)
  - Decision points
  - Ending state (can have multiple ending states)
How do I create a Users’ Current Task Models?

- **1:** Review stories
- **2:** Create new Activity diagram associated with Reservation clerk’s goal (Reservation Exists)
- **3:** Show activities performed by each role (add swim lanes)
- **4:** Identify starting state
- **5:** Add activity for each task
How do I create a Users’ Current Task Models?

6: Continue to add activities from the tasks found in the stories
How do I create a Users’ Current Task Models?

- 7: Add decision points for appropriate roles and indicate activities that result from each possible decision output.
How do I create a Users’ Current Task Models?

- **8:** Add ending states when a task comes to a termination point.

![Diagram of User Experience](image)
How do I create a Users’ Current Task Models?

- For your reference - the rest of the task model
User Experience
Use Cases

- **Purpose of use cases:** To state explicitly what the system will support based on users' goals and commonality across user tasks.
- **Definition of use case:** Statement of functionality that users expect from the system
- **UCD activities:**
  - Based on all previous modeling activities - use cases are design statement
- **Defining use cases:**
  - Review all task models
  - Find activities that are common to all use cases
  - Define highest level use cases and other uses cases that are included are types of other use cases
How do I create a User Experience Use Cases?

1: Review all task models to find activities that re-occur
2: Create a new Use Case diagram
3: Add actors to diagram
4: Add Use Cases to diagram and name each
5: Identify which actors are involved in which use case
Discovery Phase Summary

- We’ve modeled what we’ve discovered about:
  - Users
  - Goals
  - Tasks
- We’ve explicitly stated:
  - Use cases
- What’s next? - Design phase part 1
  - Objects including attributes, operations and states
  - Views in which objects are used
- Followed by - Design phase part 2
  - Interactions including conditions of interactions
  - Realization through visualization
- **Modeling deployment issues** - we are working on the best way to describe the deployment issues as they relate to the user experience use cases.
- In part 2 of the design phase deployment issues are taken into consideration.
Ideas in Progress - Continued

- Modeling business architecture
  - Business goals
  - Resources
  - Processes
- Modeling market segments
  - Would include the culture/geographies being targeted
- Creating a model of relationships between individual user characteristics and correlations to user experience attributes
Exercise - Check-in task

- **Exercise:** Sketch on paper an activity diagram that shows the users’ task model based on the story included here

- **Time:** 15 minutes and then take a break

- **User group:** Vacationer and Registration clerk

- **Story:** See details in tutorial notes

- **While doing:**
  - Watch for new roles that may appear
  - Watch for new objects that appear
  - Document insights gained that may affect the design later on such as user “twists”, decision criteria

- **Discussion:**