

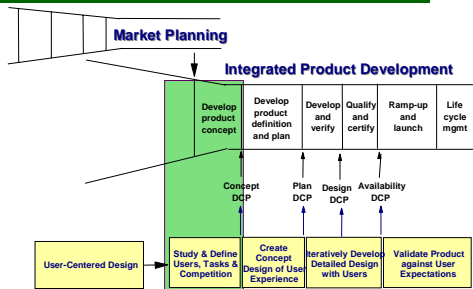
## IS 214 Needs Assessment and Evaluation of Information Systems

### User Analysis

### User & Task Analysis

- Difficult to study one without the other
- Where does it fit in the process
- What is it and what it is not
- What you can learn
- Costs of not doing it, why it's not done

### When To Do User & Task Analysis



### What is User & Task Analysis?

- Learn about users by observing them in action in their own environment
- Asking questions to probe for more information and understanding

### User & Task Analysis is Not

- Focus groups or usability testing outside the users' environment
- Talking to expert users or managers
- Just asking users what they do

### Suggested Reading

- Users Matter, Claire Rowland, WebReview.com

## User & Task Analysis Output

- User goals, what they want to achieve
- Tasks, what they do to achieve goals
- Personal, social, cultural characteristics
- Influence of the physical environment
- Previous knowledge and experience
- What users value most in your product

## Cost of Not Doing User & Tasks Analysis

- Design costs
  - Time wasted on arguments about users / tasks
  - Time wasted on extra iterations of user testing

## Cost of Not Doing User & Tasks Analysis

- Developers pay
  - Decreased sales due to unpopular product
  - Increased support costs
  - Cost of fixing product after it ships
- Customers pay
  - Excess training costs
  - Cost of fixing user errors
  - Time wasted by unhappy and inefficient users

## Why Isn't It Always Done?

- Marketing already knows our users
- Too new – no users yet
- Users are too different – can't study all
- Not enough time or money
- We're all users

## Disciplines Contributing to User and Task Analysis

- Anthropology and ethnography
- Cognitive psychology
- Technical communication, rhetoric
- Instructional systems design
- Market research
- Scandinavian participatory design

## Suggested Reading

- Reeves & Nass, The Media Equation

## User Analysis

- Who are your users?
- Brainstorming a user / task matrix
- What to look for?

## Who Are Your Users?

- Those who buy, install, administer, use, or fix the software (primary users)
- Customers (secondary users) of the primary users
- Avoid user surrogates

## Suggested Reading

- Bruce Tognazinni, Tog on Software Design, "Two Masters, or The Bifurcated Customer."

## Getting Started

- Gather people who interact with users
- Brainstorm a preliminary list of users
- Create user/task matrix to model users
- Discuss your assumptions about users
- Decide how to test your assumptions

## People Who Interact with Users

- Salespeople who call or visit buyers
- Services people who work with users
- Marketing who have studied users
- Trainers who educate users
- Support who help users
- Former users who now work for you

## Brainstorm List of Users

- What are the differences among users
  - Personal - age, gender, attitudes to tech
  - Education - level completed, major
  - Experience - time, frequency, type of products, operating systems, tasks
  - Job descriptions - titles, responsibilities
- How do they group and in what %s

## User / Task Matrix

- Which users use what parts of interface
  - Purchase
  - Evaluate
  - Install
  - Administration
  - Basic features
  - Advanced features
  - Customization
  - Task breakdown

## What to Study About Users

- Jobs
- Tasks
- Tools

## Users and Their Jobs

- Do users all have the same title or different job titles?
- Are users professionals or trained in the workplace?
- Do users know a lot about their own function but little about what comes earlier or later in the workflow?

## What User Know About Tasks

- How did they learn their tasks?
- Do they perform the tasks the same way today that they always have?
- Many tasks or a few over and over?
- Do users teach one another? Experts?

## What Users Know About Tools

- What tools are they using today?
- What tools have they used in the past?
- How did they learn the tools?
- How comfortable with tools? Expert?
- Do the tools define their jobs?

## What's Important

- Get organizational agreement on who the users are
- Don't just accept assumptions, get out and observe users
- We'll talk about methods next week

### **Class Exercise**

- Given three user groups for WebVan
- Characterize personal, education, experience, job, tasks, and tools
- How would you validate these assumptions?

### **User Definition Assignment**

- Prepare a draft definition of your users
- See IS214 web site Assignments page for sample content and layout
- Due Feb 14 (or see me for exceptions)