Questions?

• Slides now online
Beginner vs. Intermediate vs. Expert

• Perpetual Intermediates

• Approaches
  – “Help”
  – Layered designs
  – Learn through natural use
    • Tooltips
    • Keyboard shortcuts
    • SHARK
Perpetual Intermediates

• Are most users beginners, intermediates or experts? Why?
• Who in an development organization is most likely to think about beginners? experts?
• Why is online help a poor mechanism to help beginners?
• What is the value of support for expert users to intermediates?
Learn Through Natural Use

- SHARK
Learn Through Natural Use

• SHARK => ShapeWriter

www.shapewriter.com/demo.html
How to Understand and Observe?

• What can you learn from qualitative?
• Interviews
  – Stakeholders
  – Subject Matter Experts
  – Users
• Contextual Inquiry –
  user observation / ethnographic studies
• Literature Review
• Competitive Analysis
• Design Partner …
Interview: What to ask and to whom?

• **To the stakeholders**
  – Goal: alignment (how to understand and reduce differing visions)
  – Business constraints: budget, schedule, resources…?
  – Tech constraints
  – Value drivers
  – Perception of their users (market)

• **Subject matter expert**
  – Develop an ongoing relationship with them

• **To users and customers**
  – Define goals
  – Current problems and frustrations
  – What, When, Where, Why and How do they reach their goals?
Conducting an interview

• Typical topics to explore
  – What is the problem at hand?
  – How is it addressed now?
  – What are the limitation of the current practice?
  – Who, when, where and why will they use the system?
  – What will they do with it?
  – Could you show me?

• How many people should conduct interview?
Conducting an interview

Listen to users!

- Do not comment on what is possible or not
- Do not force your views
- Be sure to have clear communication channel
- Users are always right
Interview caveats

• Users might not know how to formulate their needs
  – Goals first, tasks second
  – Users are not designers
  – Users are not technology experts

• Designers might influence users
  – Pushing a cool idea
  – Pushing what you have been working on for the last month

• Considerations
  – Remember the Perpetual Intermediates
  – Encourage story telling
  – Ask for show & tell
  – Avoid leading questions
Critique these questions

1. "Do you think this keyboard is better than the traditional ones because it reduces long-term wrist pain?"

2. "Is adding a sliding bar on an MP3 player a good idea for selecting a song to listen to?"

3. "Do you think this functionality is good for students or businessmen?"

4. "When you purchase a digital camera, what is the most important factor in your decision?"

5. "Please choose your favorite design from the pictures below."

6. "Are you willing to pay more (around 10%) for products from well-known companies?"
Understanding: gathering users knowledge

• Contextual Inquiry (ethnographic research)

• Real persons with real constraints
• Conduct in regular work environment

• Encourage
  – Story telling
  – Show & tell

• Tools
  – Notepad
  – Camera
  – Tape recorder
  – Video
User Models

• Why model?
• Identify and name key “persona”
  – Helps alignment
  – Drives design to desired product
  – Communication tool with stakeholders
  – Helps later in usability studies to get right users
  – Helps market / sales plans
Why personas?

• Moving from
  – Too many conflicting goals

• To
  – A clear set of personas, each with a well articulated set of goals

• Not a specific person

• Not so broad as to include everyone
Defining personas

• A fictitious user representing a class of users
  – Represent a key set of behavior and goals

• Provide shared point for all stake holders
  – No elastic users
  – Avoid designing for self
  – Avoid designing for edge cases

• Identify and name key goals
  – What do users wish to accomplish?
  – How different goals articulate with each others?
  – Goals are not Tasks!
    • Tasks are technology dependent
    • Goals are not
Why Personas?

• Addresses:
  – Elastic user
  – Self-referential design
  – Design edge cases

• Compare “persona” and “stereotype”
• Compare “persona” and “user profile”
Key persona attributes

• How to find them?
  – Identify major clusters from stakeholders & user interviews
  – Synthesize their goals
  – Check for completeness
  – Try them out by developing narrative

• Design each interface for a single primary persona
  – Other types might use the interface

• Examples
Goals

- Goals, not tasks ("I want to …")
  - “I want to not be stressed”, not “I want my equipment to work on the plane”.
  - “I want to never feel stupid”, not “I want to be able to fill out this expense report without mistakes”

- Tasks, not Solutions
  - “I want to use this on my plane trip to California”, not “long battery life”
  - “I want to easily find class files”, not “create hierarchy with homeworks, readings, and projects”
  - “I want to discover and use speaker phone on demand with 3 people in my office watching me”, not “one hardware button to activate speakerphone”
Children as Design Partners

• What are the four roles that children can play in the design of new technology?
• How are children's roles in supporting design different than adults roles?
• Describe one method to engage children in each of the four roles.
• What are some special challenges of working with children?
• What is wrong with “K-12” solutions?
User Roles

- **User**: Observe use with product
- **Tester**: Observe use with prototype
- **Informant**: Provide input with existing technologies or prototypes
- **Design Partner**: Work with designers throughout process, elaborating on each other’s ideas

[Druin (2002)]
Form groups for HW #2