

Welcome

User Profiling

**Among the great things which are to
be found among us, the Being of
Nothingness is the greatest**

Leonardo Da Vinci



User Profiling

Abbas Moallem, Ph.D.



Overview

- **We Study Users to Discover Who they are by:**
 - Talking to them
 - Watching them
 - Observing them
- **How do we define a user profile?**
- **Use Cases**
- **User characteristics**
- **The “Persona” concept**
- **Scenarios**





We Study Users to Discover:

- Characteristics that may affect their behavior with the application that we design
- Their understanding of the interface they use today and how will they understand a new interface we might create for them
- The knowledge they bring to their job role to perform required tasks
- Their expectations (i.e. save time, not be bored, raise performance, have ease of use)



Users vs. Customers

- The goals, characteristics, and behaviors of customers may be different than users.
- Skills and knowledge of the customers may be different than users.
- Interests and motivation of the customers may be different than users.
- Users may be part of different community: new learners, experts or designer, system operator and system administrator.



Define User Profile

- Brainstorm a preliminary list of users and potential users.
- Create a user characteristic matrix.
- Confirm characteristics with field studies.
- When studying users, observe the following:
 - How do they differ individually (personal, physical, cultural, and motivation)?
 - How do they define themselves(jobs, tasks, tools, mental model)?
 - How do they use products over time, and what is their level of expertise?



Preliminary List of Potential Users

- Ask the following groups:
 - Sales (who visit users)
 - Functional and technical consultants (who install and customize products)
 - Marketing (who conducts research studies to identify customers and users)
 - Trainers (who train users in the classroom)
 - Field and telephone support (who answer users' questions)
- Discuss
 - Experience in the job, educational level, training
 - Age, gender, disability, cultural background
 - Geographic location, wages
 - Language skills, terminology
 - Job level: engineer, technicians, clerk



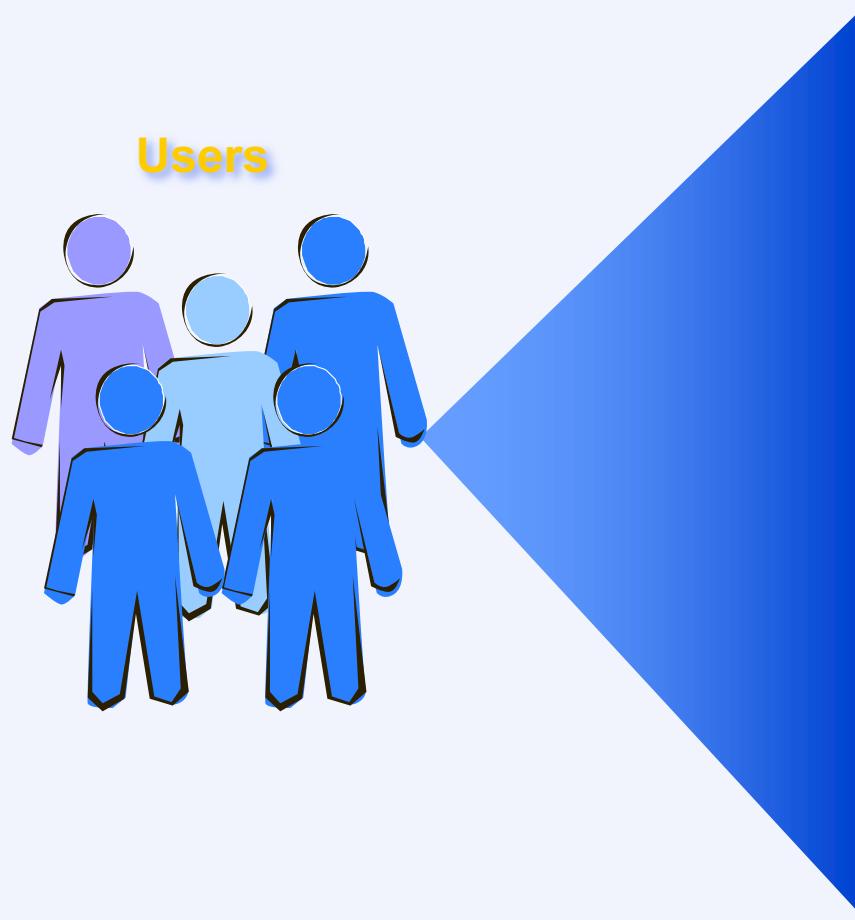


Create a User Characteristic Matrix

		Task likely to be performed for Call Center Application				
Users	Primary Users	Supervisory responsibility	Set up Maintenance	Performance Measurement	Access to Case and Information	
Call Agent	Data Entry					X
Call Center Manager	X	Monitoring activities				
Admin.	X	X	Config. Set up	X		
Director	X	X	X	Productivity measurement		
Customer	X					Access to cases



Field Study



Data Collection Techniques



Survey



Questionnaires



Direct
observation
Task analysis

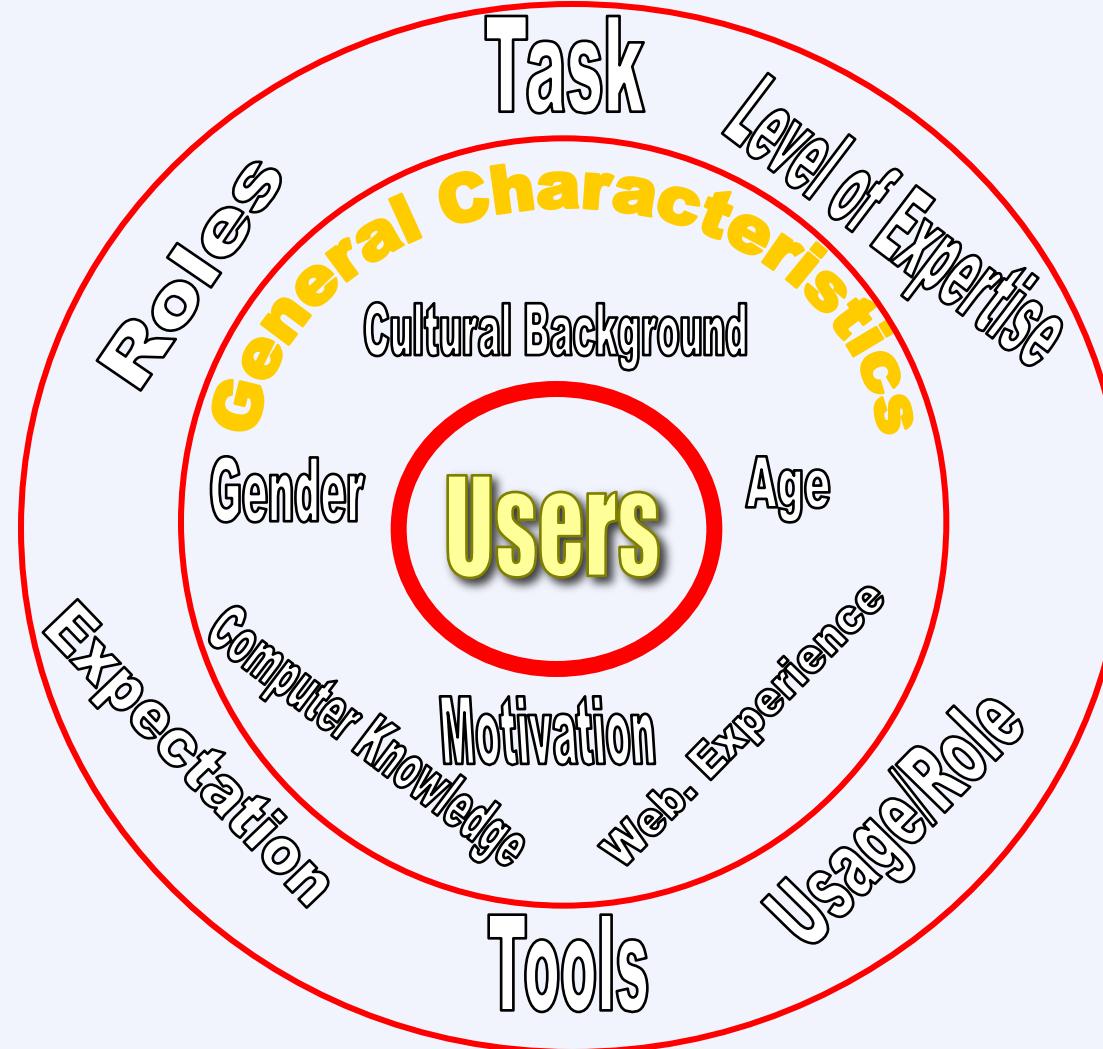


Focus group



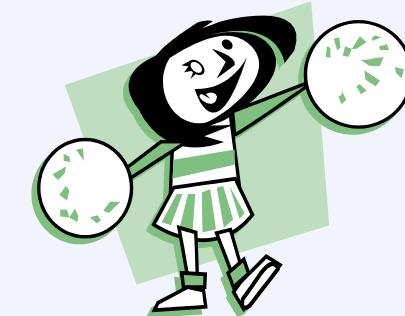
Usability testing

Study Users



Age

- The normal effects of aging include:
 - a decline in computer-related sensing, cognitive, and responding abilities.
 - influences on the senses.





Age and Sound

Age in Years	Sound Level (dB)
15	54
25	57
35	61
45	65
55	69
65	74
75	79
85	85





Age and Font Size

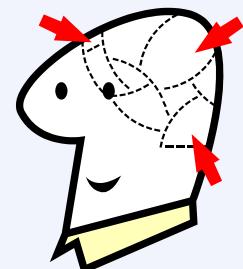
- Older adults were slowed by smaller type fonts .
- The best reading speeds can be attained with:
 - 14-point type in columns that were 4 inches wide.
 - 12-point type in columns that were 3 inches wide.
- The visual sensing.
- limitations of older users could be better addressed if designers:
 - Used only sans serif fonts (Arial, Helvetica, Verdana).
 - Used black type on a white background.





Age and Brain Processing Speed

- The largest impact seems to be with:
 - tasks that require the most cognitive processing, such as with working memory, overall attention capacity, and visual search.
 - Performance.
 - Age effects are
 - smallest for tasks where knowledge is an important aspect of the task,
 - and largest for tasks where successful performance is primarily dependent on speed.





Age and Brain Processing Speed

- Experience conduct searches using different websites. Shows that:
 - The older users had the most problems with tasks that required 3 or more clicks.
 - Older users also searched less efficiently than younger users, requiring them to make 81% more moves.
 - Most of the difficulties encountered by older users seemed to be directly related to memory limitations.





Age and Movement

- **As users age, the ability to make movements slows, and becomes less reliable. This causes:**
 - To type and mouse slower
 - To read a text passage into the computer longer
 - To speak slower than younger users.



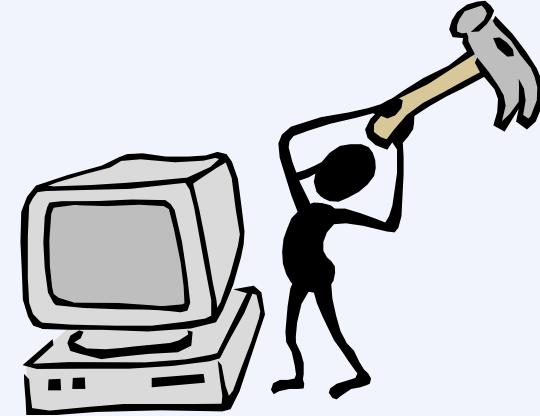
Users differ Professionally



Task



Mental Model



Tools



Tasks

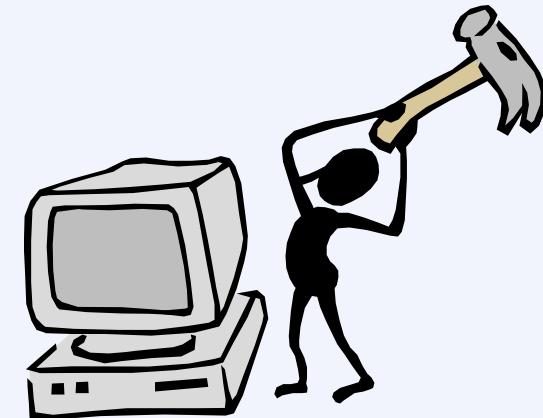
- How did the users learn to perform the tasks?
- How long have they been doing these tasks?
- Do they perform their task in the same way as they have in the past?
- Do they perform many varied tasks in a typical day or do they perform the same task?
- Do they supervise or teach others to do these tasks?
- Who is considered to be expert on these tasks?
- What is the mental model of users?
(collection of association in user's mind)





Tools

- What tools do users use to perform their tasks?
- How did they learn to use these tools?
- How comfortable are they using these tools?
- Are the users familiar with technology
- If they tools changes the jobs also will change?



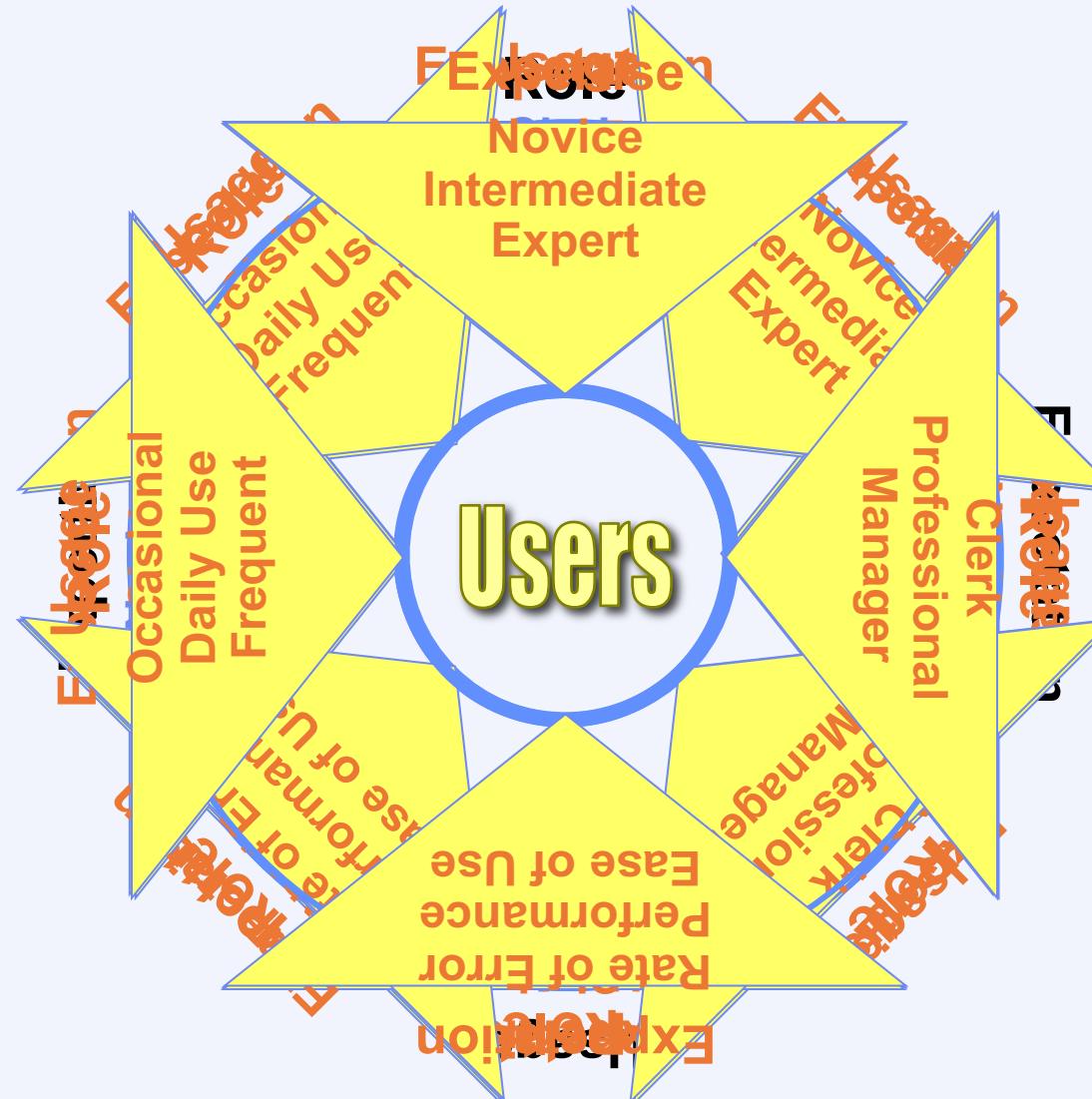


Mental Model

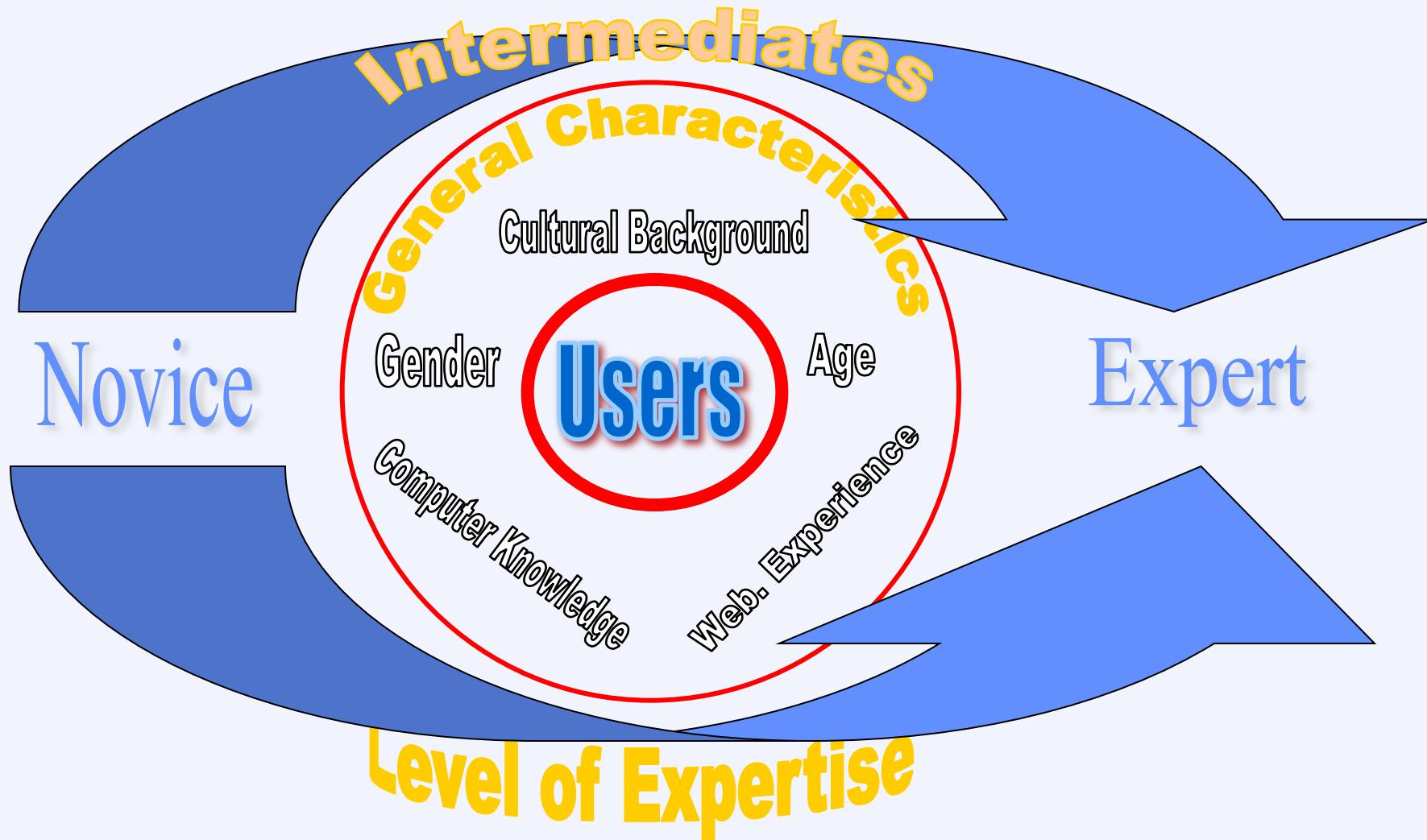
- Mental models are "the mechanisms whereby humans are able to generate descriptions of system purpose and form, explanations of system functioning and observed system states, and predictions of future system states"
- Examples:
 - Mental model of how an accounting system functions
 - Mental model of normal automobile operation vs. one with a flat tire



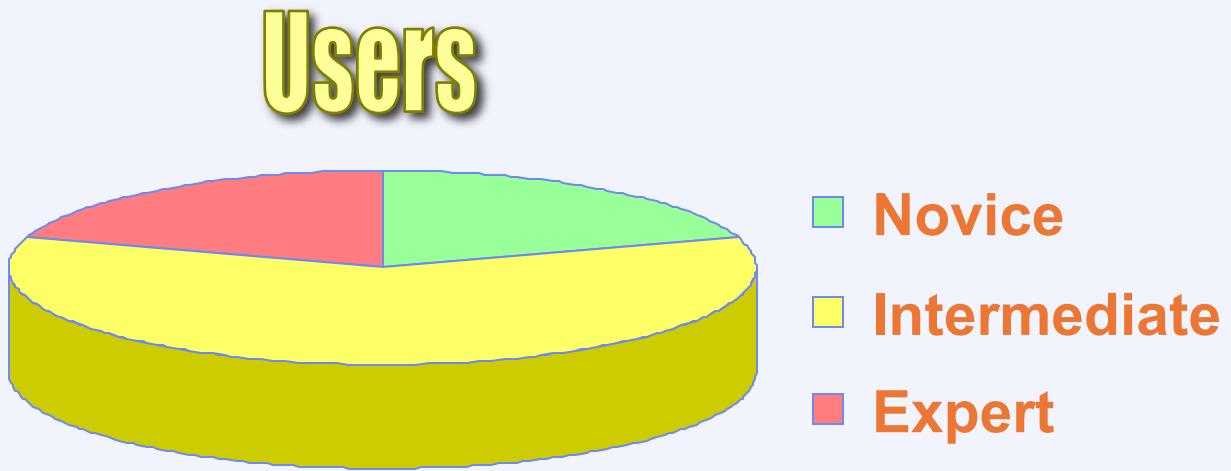
Users' Profile



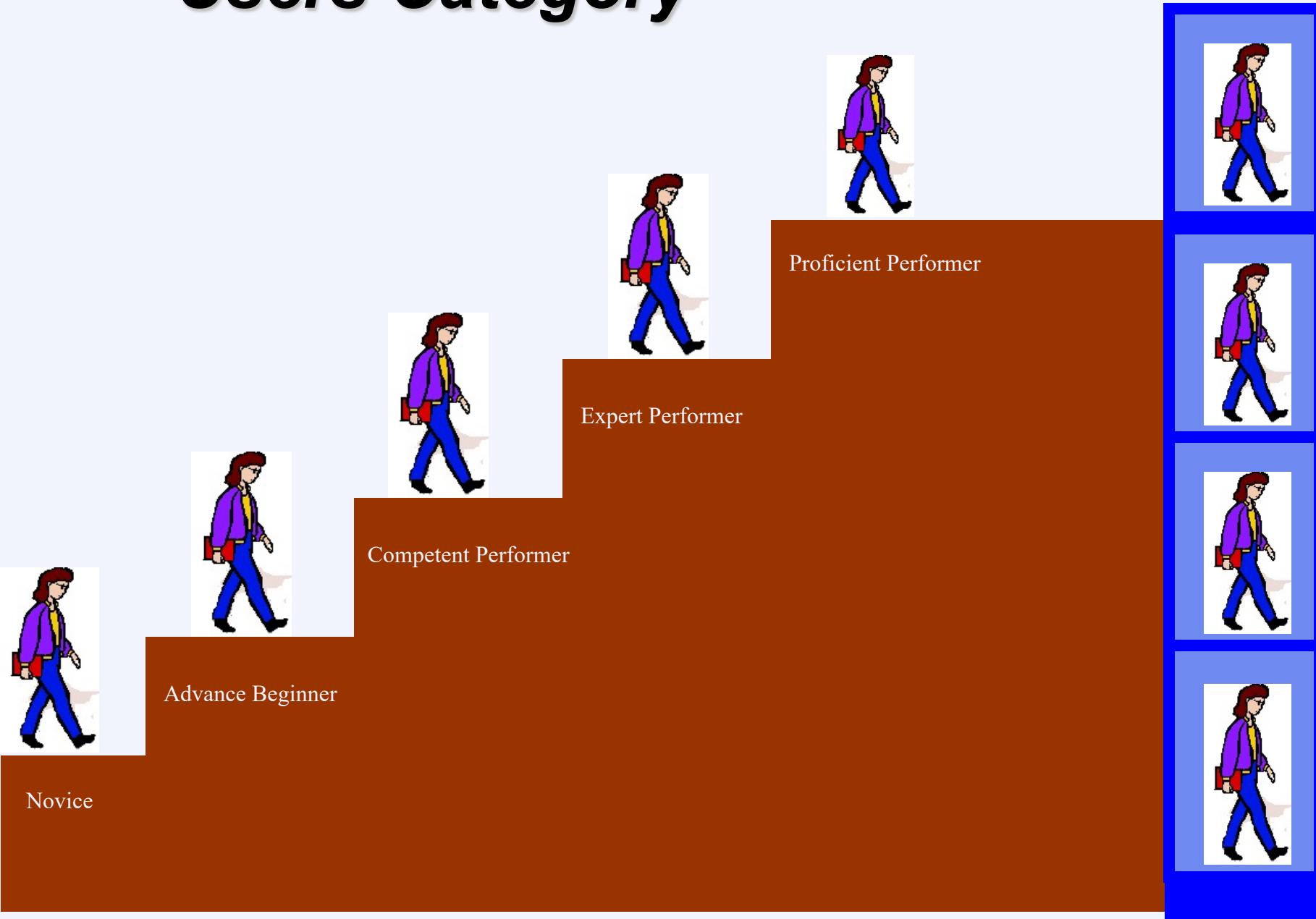
Level of expertise



Level of Expertise



Users Category





Analyzing Users

- Tasks the user perform.
- User's informational needs.
- User's work motivation.
- User's computer experience.
- User's knowledge of the program's subject matter
- User community.
- User's learning preference.
- User's usage pattern.





Tasks the User Perform

- **System administrator.**
- **Supervisor/Manager.**
- **Data entry clerk.**
- **Support Agent.**
- **Technical**



User's Informational Needs

- **What information does user need?**
 - Main source of information
 - Direction of information flow
 - Vertical: coming from the top
 - Horizontal: shared among members of a user's community
- **How does user communicate?**
 - Printing reports documents drawing, images
 - Online documentation
 - Coworker
 - Database





Characteristics of User Types

Characteristic	Novice	Experienced	Expert
Number of Program Used	Few	Low	Many kind
Degree of Technical Knowledge	Low	Some	High
Attitude	Vague, illogical, negative	Computer as tool, open	Programs as programs, not tools; for their own sake
Learning Behavior	Undifferentiated, resistant		Highly differentiated
Documentation Preferences	Tutorial, index and table of contents, visuals, guided tour		Command and task reference; online help; user guide



User Community

- **Users' Group**
- **Special Interest Group**
- **Internet Users' Group**





User's Learning Preference

- **Learning from Instructors**
- **Learning with a Computer**
 - Computer based tutorial
 - Multimedia package
- **Online**
 - Web Cast
 - Online Tutorial
- **Reading Material: Books, Manual, Guide**



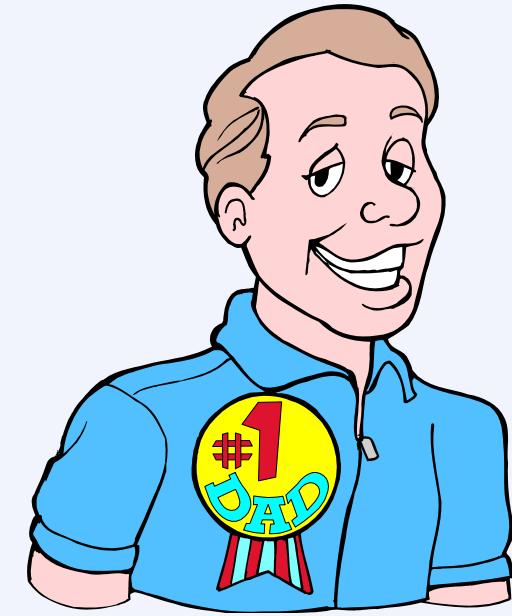
Multiple Stage in One Audience

- Determine the percentage of each stage of use among user communities.
- Decide if your information design must be supporting each stage of use.
- Determine how you will support each stage of use in information design.
- Decide if you will tailor information for specific stages of use.
- Consider also other media options.

Creating User Profiles



**Create profile for
target users**



**Create specific user profile:
“Persona concept”**

“Persona” Concept

- Create a product that must satisfy a broad audience of users, instead making the functionality as broad as possible.
- To accommodate the most people, design for a single person, defined as a “persona”





Personas

- **Persona is a user archetype you can use to help guide decisions about product:**
 - features, navigation, interactions, and even visual design
Personas must be specific to the design problem
- **In most cases, personas are synthesized from a series of ethnographic interviews with real people**



“Personas”

- Are not real people, but they represent them throughout the design process.
- Are hypothetical archetypes of actual users.
- Are defined with significant rigor and precision.
- Are defined by their goal.
- Are defined in great and specific detail.
- Are defined with a realistic look at skill level
- Are user personas and not buyer personas
- Consist of a cast of three to twelve unique characters
 - Every cast of characters has at least one primary persona who is the main focus of the design





Example Persona

Betty is 37 years old. She has been Warehouse Manager for five years and worked for Simpkins Brothers Engineering for twelve years. She didn't go to university, but has studied in her evenings for a business diploma. She has two children aged 15 and 7 and does not like to work late.

She did part of an introductory in-house computer course some years ago, but it was interrupted when she was promoted and could no longer afford to take the time. Her vision is perfect, but her right-hand movement is slightly restricted following an industrial accident 3 years ago.

She is enthusiastic about her work and is happy to delegate responsibility and take suggestions from her staff. However, she does feel threatened by the introduction of yet another new computer system (the third in her time at SBE).



Persona



>>>>

USER PROFILE: BUSINESS BROWSERS

John Fix III

Demographic: Male, 42, married

Occupation: Retail hardware store owner

Personality traits: Friendly, inquisitive, generous

Online habits and behaviors: "I log on every day, numerous times each day for an average of about two hours per day. I have DSL at home, and a T1 connection at work. Work is noisy—it's a busy office—but at home it's quiet, because the PC is in a home office away from the television."

Web history: "I've been using the Web regularly since 1995, but using Internet e-mail since about 1992."

Favorite Web sites: www.theonion.com, ESPN.com, DejaNews.com

Usability pet peeves: Animated ads, pop-ups, code that disables the back button

How do you search? "On a Web site, I usually look for a search option if the item or information I'm looking for isn't immediately visible. I try not to get distracted by other info on the site. I use the back button all the time, usually via the mouse button (I use an MS Intellimouse Explorer)."

What are your typical online goals? "Hmmm, depends on what I'm doing. If it's something work-related, I want to get the info and then get back with my customer or employee. It's made things like finding product information for my hardware store much easier."



Persona

(Story from the field, continued)

Primary Persona: "Admin Angie"

Primary Weighting: High (1.5/2.0)

Also Applies to:
Secondary Personas
Indie Ian

Primary Goal:
Get at least 30 Desktop PC's for under \$25k

Secondary Goal:
Get at least 80gig hard drives: 512mb memory on each machine

Tasks:

1. Identify - Verify
2. Compare - Narrow
3. Customize - HD/Mem
4. Verify - Transact

Compare Workstations

Workstations

Small Business

Compare Desktops

Desktops

Home & Home office

Compare Desktops

Desktops

Find Desktop PC

Scenario: Front-end conversion path



Example of a “Persona”



Jean Peak
Network Installer
Time with Company:
15 years

He works with computers all day everyday and is very adept at getting them to function, but he doesn't really understand how they work. He survives through his reservoir of superstition and lore, his capacity for rote learning, and his endless patience.

(adapted from Alan Cooper)



Example of a “Persona”



Mary Simmons

Customer Service Rep, Outbound

Time with Company: 8 years

Warm | Personable | Reliable

GOALS:

- Develop and maintain good relationships
- Assure satisfactory issue resolution with customers and coworkers
- Increase efficiency in order to better service clients

-
- Very intimidated by new technology – prefers familiarity and training
 - Relies on her more technically-savvy coworkers for information, news, forms accessed via the intranet
 - Considered the “mother-hen” of customer service and collections – younger counterparts look to her for advice on handling customers
 - Wants to service her customers efficiently – could be one of the best CSRs on the current systems
 - Is frustrated because the nature of the systems in place does not allow her to service customers as effectively and efficiently as possible
 - Relies 100% on management to keep her abreast of her metrics, company news, and what information should be of importance to her
 - Participates in department contests to help her stay motivated

“
The customer is waiting on the phone while we’re cruising through five different apps...we’re our own worst enemy.
”



Scenarios

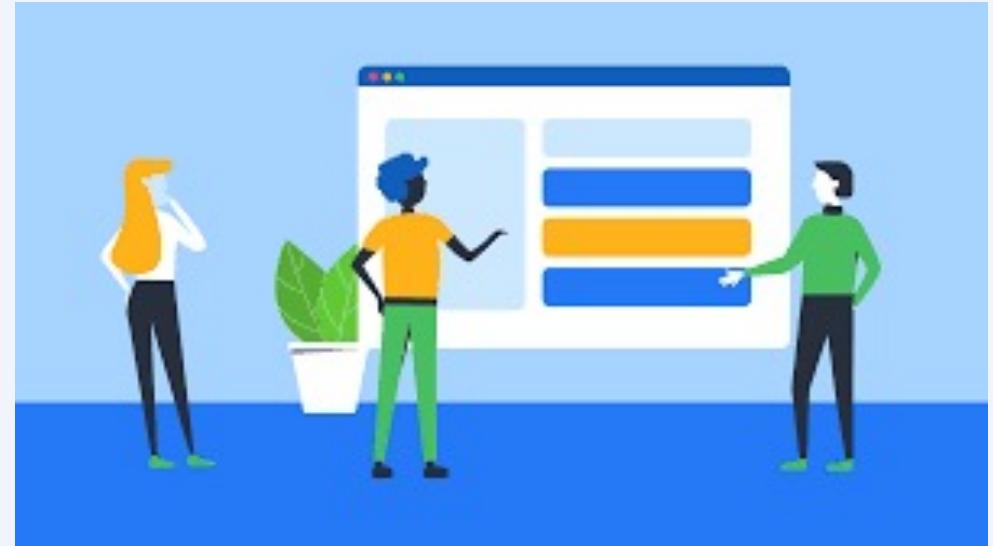
- Personas play scenarios like actors reading a script.
- Scenarios are constructed from information gathered during initial investigation.
- Scenarios need to be compete in breadth more than in depth. (from start to finish instead of each step in exhaustive detail).





Scenarios

- **Stories for design**
 - communicate with others
 - validate other models
 - understand dynamics
- **Linearity**
 - time is linear - our lives are linear
 - but don't show alternatives





Scenarios ...

- what will users want to do?
- step-by-step walkthrough
 - what can they see (sketches, screen shots)
 - what do they do (keyboard, mouse etc.)
 - what are they thinking?
- use and reuse throughout design



Different Type of Scenarios

- **Daily use scenarios:**
 - Primary actions the user will perform with the greatest frequency.
 - Require the most important interaction support
 - New users must be able to master them quickly
- **Necessary use scenarios:**
 - Actions that must be performed, but not performed frequently
- **Edge case scenarios:**
 - Tasks that are neither necessary nor frequent



Scenario – Movie Player

Brian would like to see the new film “Moments of Significance” and wants to invite Alison, but he knows she doesn’t like “arty” films. He decides to take a look at it to see if she would like it and so connects to one of the movie sharing networks.

He uses his work machine as it has a higher bandwidth connection but feels a bit guilty. He knows he will be getting an illegal copy of the film, but decides it is OK as he is intending to go to the cinema to watch it. After it downloads to his machine he takes out his new personal movie player.

He presses the ‘menu’ button and on the small LCD screen he scrolls using the arrow keys to ‘Bluetooth connect’ and presses the select button. On his computer the movie download program now has an icon showing that it has recognized a compatible device and he drags the icon of the film over the icon for the player. On the player the LCD screen says, “downloading now”, a percent done indicator and small whirling icon.

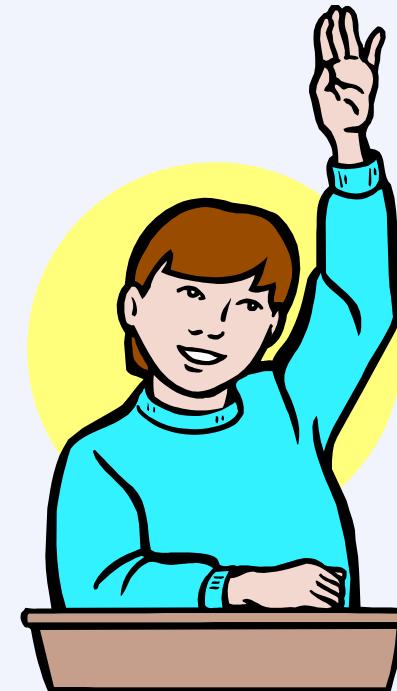


Summary

- Design for target users.
- Collect data from target users about how they perform their tasks, their expectations and their needs.
- Test prototypes with a representative sample of target users.
- Validate design decisions with the target users.



Questions





The background image shows several tall, fluted stone columns of an ancient Egyptian temple. The columns are light-colored and show signs of weathering and age. The sky is a clear, pale blue.

Welcome

Evaluation

Abbas Moallem, Ph.D.

Teachers open the door, but you must enter by yourself.

Chinese proverb



Evaluation

Abbas Moallem, Ph.D.

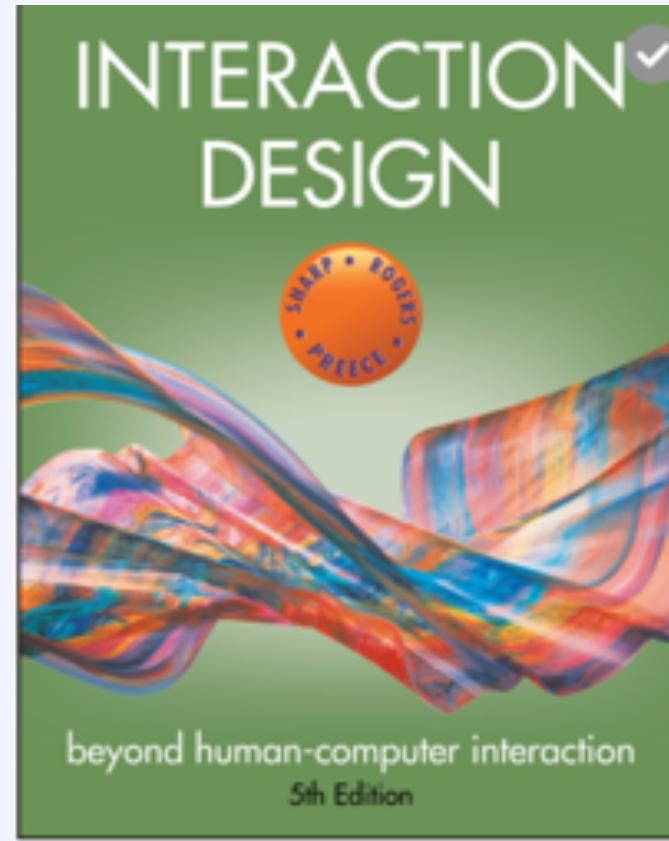
Required Reading

Chapter 14, 16

Chapter 14: Introducing Evaluation Page

495-516-Textbook

**Chapter 16: Evaluation Inspection,
Analytics, and Model Page 549-567-
Textbook**



**Interaction Design,
5th Edition**

Design Evaluation in HCI

Evaluation

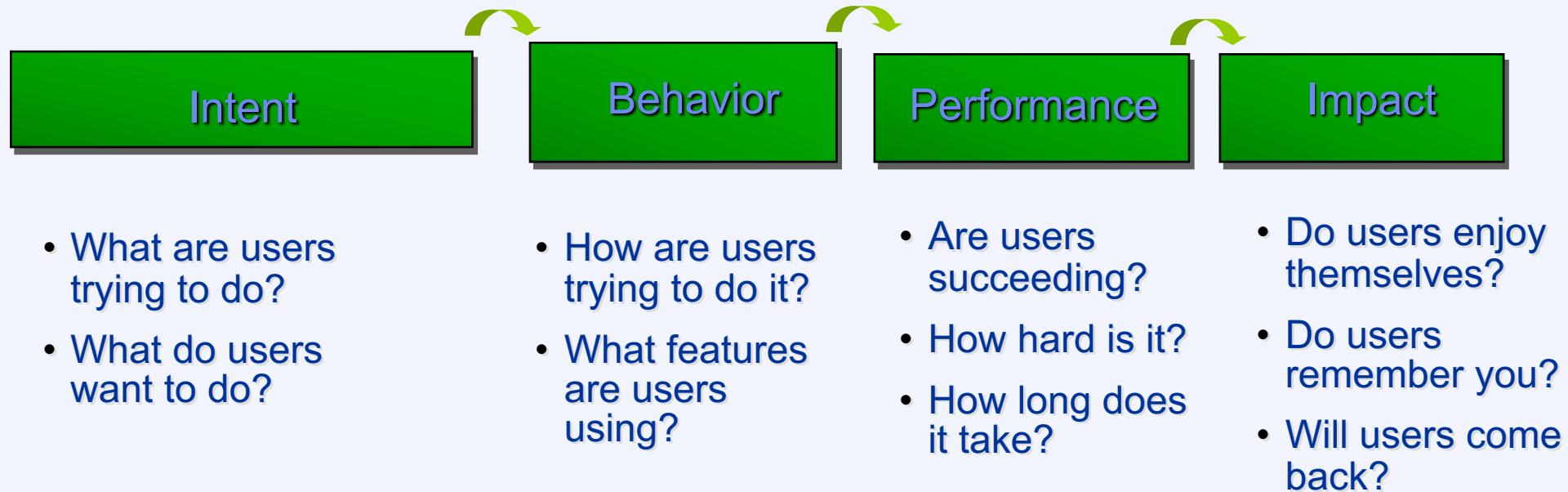
- Tests usability and functionality of system
- Occurs in laboratory, field and/or in collaboration with users
- Evaluates both design and implementation
- Should be considered at all stages in the design life cycle

Goals of Evaluation

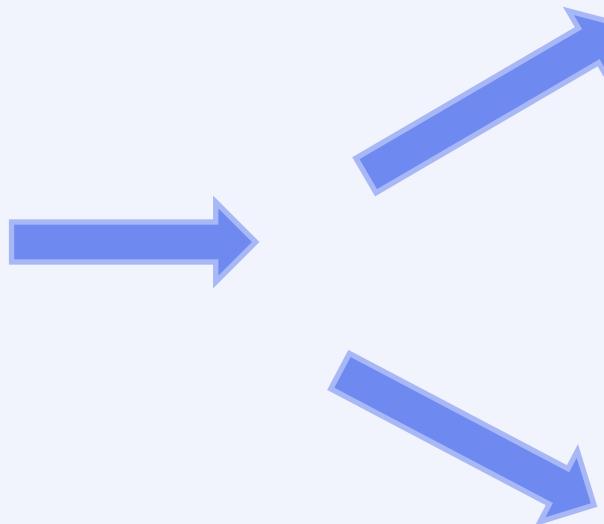
- **Assess extent of system functionality**
- **Assess effect of interface on user**
- **Identify specific problems**

Dimensions of User Experience

➤ Capturing the entire relationship between users and interface is key to understanding user experience



Evaluation Techniques



**Cognitive
Walkthrough**



Heuristic Evaluation

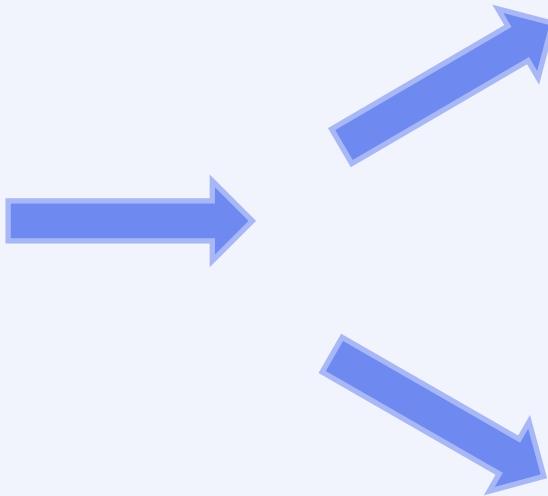
Aims

- **Describe the key concepts associated with inspection methods.**
- **Explain how to do heuristic evaluation and walkthroughs.**
- **Explain the role of analytics in evaluation.**

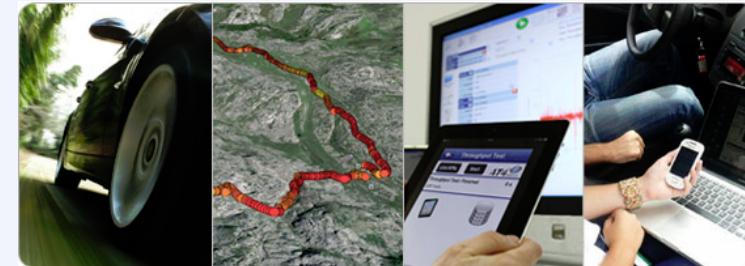
Evaluation Techniques



User-Based Evaluations



Usability Testing



Field Testing

Inspections

- **Several kinds.**
- **Experts use their knowledge of users & technology to review software usability.**
- **Expert critiques can be formal or informal.**
- **Heuristic evaluation is a review guided by a set of heuristics.**
- **Walkthroughs involve stepping through a pre-planned scenario noting potential problems.**

Review-based Evaluation

Experts:

- **Results from the literature used to support or refute parts of design.**
- **Care needed to ensure results are transferable to new design.**
- **Model-based evaluation**
 - Cognitive models used to filter design options
e.g. GOMS prediction of user performance.
 - Design rationale can also provide useful evaluation information

Cognitive Walkthrough

Cognitive Walkthrough is a method for evaluating user interface by analyzing the mental processes required by users.



Cognitive Walkthrough

Proposed by Polson *et al.*

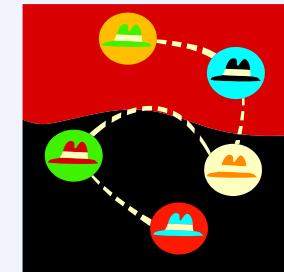
- Evaluates design on how well it supports user in learning task
- Usually performed by expert in cognitive psychology
- Expert ‘walks though’ design to identify potential problems using psychological principles
- Forms used to guide analysis

Cognitive Walkthrough (ctd)

- **For each task walkthrough considers**
 - what impact will interaction have on user?
 - what cognitive processes are required?
 - what learning problems may occur?
- **Analysis focuses on goals and knowledge: does the design lead the user to generate the correct goals?**

Performing a Cognitive Walkthrough

- Choose a specific task from the suite of tasks the interface is intended to support.
- Determine one or more correct sequences of actions for that task.
- Examine these sequences in the context provided by the interface.
- Assess whether a hypothetical user would be able to select an appropriate action at each point.



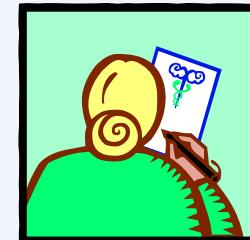
Key Features of the Cognitive Walkthrough

- Performed by an analyst and reflects the analyst judgments.
- Examines specific user tasks.
- Analyzes correct sequence of actions, and if they will be followed by users.
- Identifies likely trouble spots in an interface and suggests possible reasons.
- Identifies problems by tracing the likely mental processes of a hypothetical user.



Advantages of the Cognitive Walkthrough

- Permits early evaluation of designs at the prototyping stage or without a mockup.
- Helps the designer assess how the features of their design fit together to support users' work.
- Provides useful feedback about action sequences.
- Assists designer by providing reasons for trouble areas.
- Provides indications of the users' mental processes, which helps build a successful interface that accommodates users.



Disadvantages of Cognitive Walkthrough

- Relies on analysis rather than user testing.
- Provides a detailed examination of a particular task rather than an overview of the interface.
- Provides no quantitative data.



Main Steps for a Cognitive Walkthrough

- Preparation
- Analysis
- Follow up



Cognitive Walkthrough Preparation

- **Define assumed user background**
 - General knowledge
 - Computer knowledge
 - Task knowledge
- **Choose a sample task**
 - Important
 - Realistic
- **Specify the correct action sequence(s) for the task**
- **Determine the interface state along the sequence(s)**

Cognitive Walkthrough Analysis

For each action answer the following questions:

- Will the user be trying to achieve the right effect?**
- Will the user notice the correct action is available?**
- Will the user associate the correct action with the desired effect?**
- If the correct action is performed, will the user see that progress is being made?**

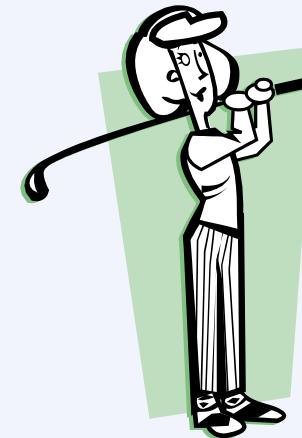
Based on the “yes” or “no” answer:

- Explain why a user would choose that action**
- Explain why a user would not choose that action**



Cognitive Walkthrough Follow-up

- Suggest where the design is likely to fail and why.
- Provide specific guidance for each problem.
- Indicate which the problems may be superficial and where profound changes are needed.
- Report the designer's view of the interface and eventual difference with the users' view (if any).



Advantages and Problems

- Few ethical & practical issues to consider because users not involved.
- Can be difficult & expensive to find experts.
- Best experts have knowledge of application domain & users.
- Biggest problems:
 - Important problems may get missed;
 - Many trivial problems are often identified;
 - Experts have biases.

Cognitive walkthroughs

- Focus on ease of learning.
- Designer presents an aspect of the design & usage scenarios.
- Expert is told the assumptions about user population, context of use, task details.
- One or more experts walk through the design prototype with the scenario.
- Experts are guided by 3 questions.

The 3 questions

- Will the correct action be sufficiently evident to the user?
- Will the user notice that the correct action is available?
- Will the user associate and interpret the response from the action correctly?

As the experts work through the scenario they note problems.

Pluralistic Walkthrough

- Variation on the cognitive walkthrough theme.
- Performed by a carefully managed team.
- The panel of experts begins by working separately.
- Then there is managed discussion that leads to agreed decisions.
- The approach lends itself well to participatory design.
- Also other adaptations of basic cognitive walkthroughs.

Heuristic Evaluation

A systematic inspection of a user interface design by interface specialists to determine the usability, based on their experience, guidelines, and standards.



Heuristic Evaluation

- Proposed by Nielsen and Molich.
- usability criteria (heuristics) are identified
- design examined by experts to see if these are violated
- Example heuristics
 - system behaviour is predictable
 - system behaviour is consistent
 - feedback is provided
- Heuristic evaluation `debugs' design.



Heuristic evaluation

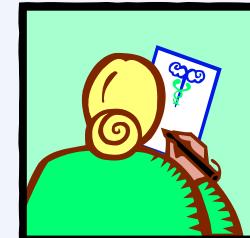
- Developed by Jacob Nielsen in the early 1990s.
- Based on heuristics distilled from an empirical analysis of 249 usability problems.
- These heuristics have been revised for current technology by Nielsen and others for:
 - mobile devices,
 - wearables,
 - virtual worlds, etc.
- Design guidelines form a basis for developing heuristics.

3 stages for doing heuristic evaluation

- Briefing session to tell experts what to do.
- Evaluation period of 1-2 hours in which:
 - Each expert works separately;
 - Take one pass to get a feel for the product;
 - Take a second pass to focus on specific features.
- Debriefing session in which experts work together to prioritize problems.

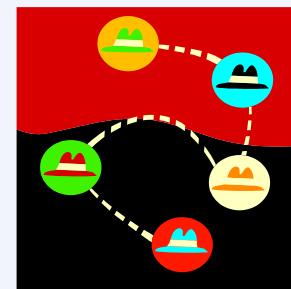
Advantages of a Heuristic Evaluation

- Relatively inexpensive and fast
- Performed at any phase of product development
- Identifies many problems
- Achieves substantially better performance by aggregating the evaluation from several evaluators
- Provides an overview of the complete design
- Pays direct attention to particular aspects of a design and associated problems
- Does not attempt to trace specific user behavior, rather it critiques the attribute of an interface itself



Performing a Heuristic Evaluation

- Use multiple evaluators for the best results. A single evaluator will miss most of the usability problems in an interface.
- Each evaluator should inspect the interface on their own.
- An evaluation session generally lasts one or two hours. Longer sessions are needed for more complicated systems.
- Evaluators individually decide how they want to proceed with evaluating the interface.
- Each evaluator provides a report or recorded version.



Disadvantages of a Heuristic Evaluation

- Relies on analysis rather than user testing
- Relies on the judgment of the evaluator and his/her level of expertise



Heuristics for websites focus on key criteria (Budd, 2007)

- Clarity
- Minimize unnecessary complexity & cognitive load
- Provide users with context
- Promote positive & pleasurable user experience

Heuristic Evaluation Principles

- Feedback or visibility of system status
- Use of users' language
- User control and freedom
- Consistency and standards
- Error prevention and error messages
- Recognition rather than recall
- Flexibility and efficiency of use
- Aesthetic and minimalist design
- Help and documentation



Feedback

- The system should always keep users informed about what is going on through appropriate feedback within reasonable time.
- System feedback should be expressed in the users' language to guide and provide effective feedback.
- Feedback must be provided in case of system failure.



Using the Users' Language

- Use users' language rather than system-oriented terminology.
- Use users' language in selecting icons and nonverbal elements in the interface.
- Do not use words contrary to the definition understood by the general population or community of users.
- View interaction from the users' perspective.



User Control and Freedom

- Provide users with an emergency exit.
- Support redo and undo(s).



Consistency and Standards

- Create and follow a standard when designing an interface
 - User Experience Standards Guide
- The same information should be presented in the same location on all screens and dialogue boxes
- The task and functionality structure must be consistent throughout the product



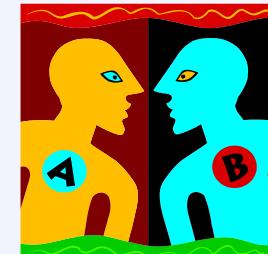
Error Prevention and Error Messages

- **Error prevention**
 - Avoid the error situation in the first place.
 - An error with serious consequences must be eliminated through design improvement.
- **Error messages**
 - Written clearly
 - Precise rather than vague
 - Helps the user solve the problem
 - Polite and not intimidating or blaming to the user



Recognition Rather than Recall

- Allow users to choose from items generated by the computer.
- Display as many objects as needed to the users.
- Supply information as part of the dialogue.
- Use a small number of rules that apply throughout the user interface to reduce the learning/remembering load.
- Use generic commands as much as possible to support the transfer of learning from one application to the next.



Flexibility and Efficiency of Use

Novice, expert, occasional, and frequent users interact with the system in different ways.

You should allow users to:

- Customize their frequent actions**
- Customize their interface preferences**
- Provide short cuts and frequently used options such as “favorites”**



Aesthetic and Minimalist Design

- Follow the “less is more” rule for information content of screens and the choices of features.
- Providing a lot of information can confuse the novice users and slow down the expert users.
- Provide only the information that is really important to users in performing their tasks.



Help and Documentation

- **Create systems that do not need help or documentation in order to operate them.**
- **If help or documentation is needed:**
 - Provide a search feature to allow the user to find information.
 - Write the information in the language of the user, corresponding to the tasks users want to perform.
 - Provide instruction regarding application of the instructions.



Revised version (2014) of Nielsen's original heuristics

- **Visibility of system status.**
- **Match between system and real world.**
- **User control and freedom.**
- **Consistency and standards.**
- **Error prevention.**
- **Recognition rather than recall.**
- **Flexibility and efficiency of use.**
- **Aesthetic and minimalist design.**
- **Help users recognize, diagnose, recover from errors.**
- **Help and documentation.**

Using heuristics to evaluate ambient displays

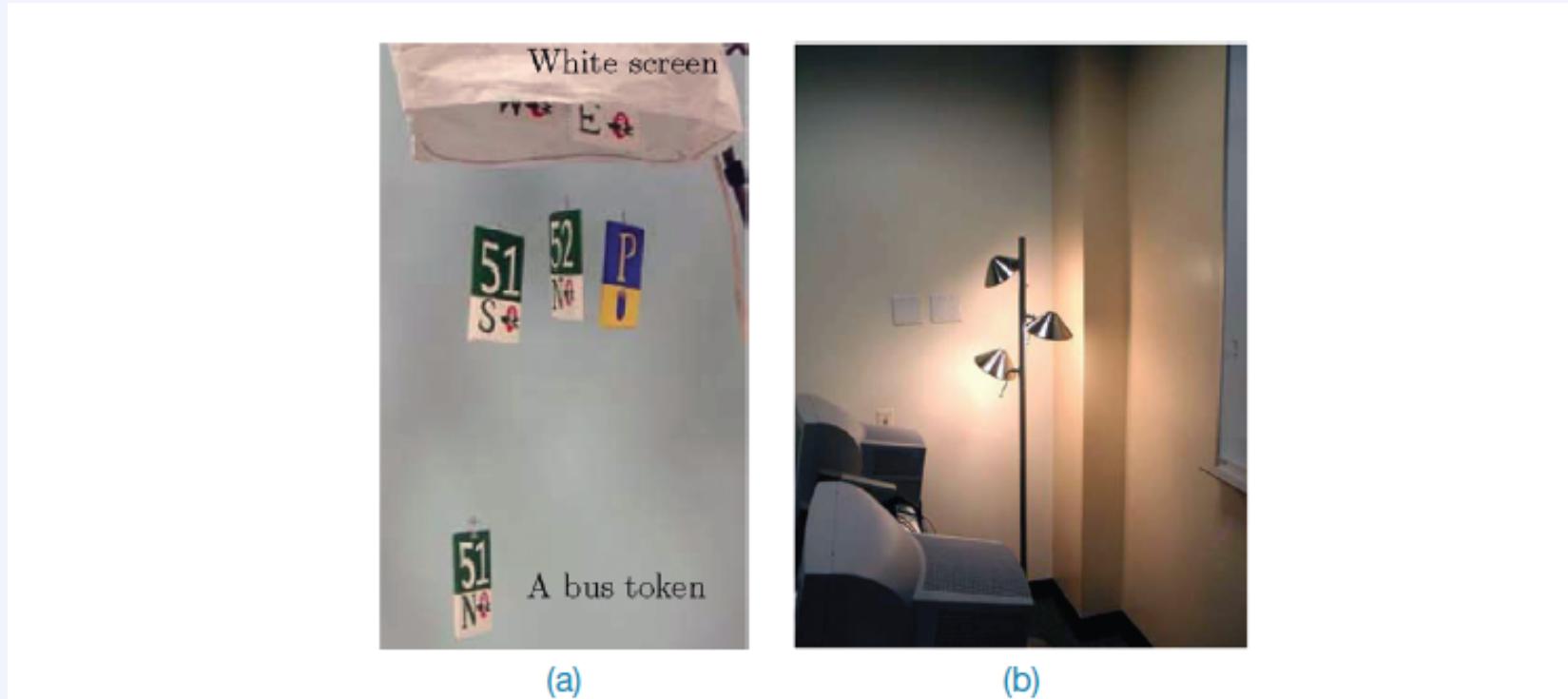


Figure 15.2 Two ambient devices: (a) bus indicator, (b) lightness and darkness indicator

Source: J. Mankoff, A. K. Dey, G. Hsich, J. Kientz, Lederer and A. Morgan (2003) Heuristic evaluation of ambient devices. In *Proceedings of CHI 2003*, ACM Fig.1, p. 170. ©2003 Association for Computing Machinery, Inc. Reprinted by permission.

Number of evaluators & problems

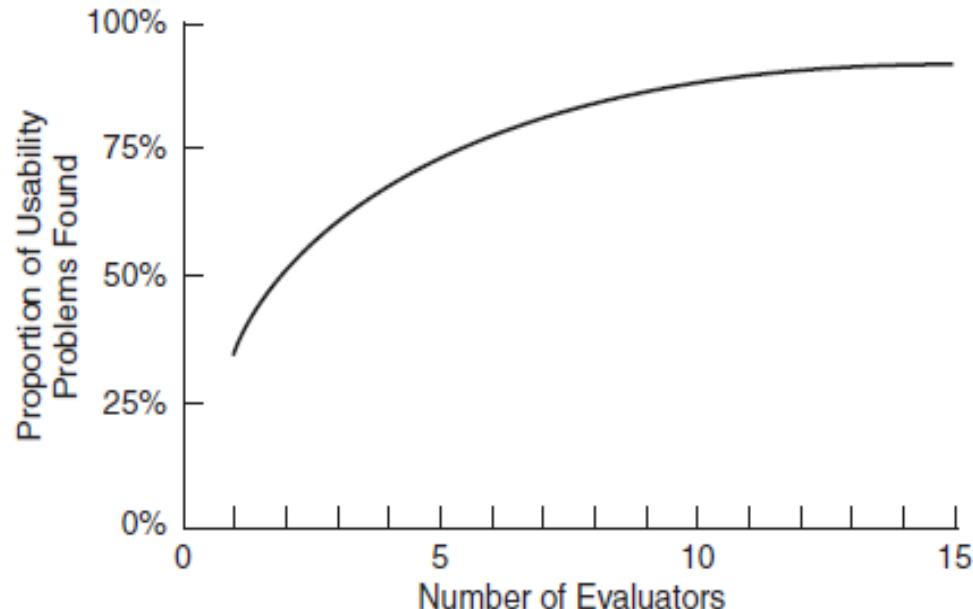


Figure 15.1 Curve showing the proportion of usability problems in an interface found by heuristic evaluation using various numbers of evaluators. The curve represents the average of six case studies of heuristic evaluation

Source: Usability Inspection Methods, J. Nielson & R.L. Mack ©1994. Reproduced with permission of John Wiley & Sons Inc.

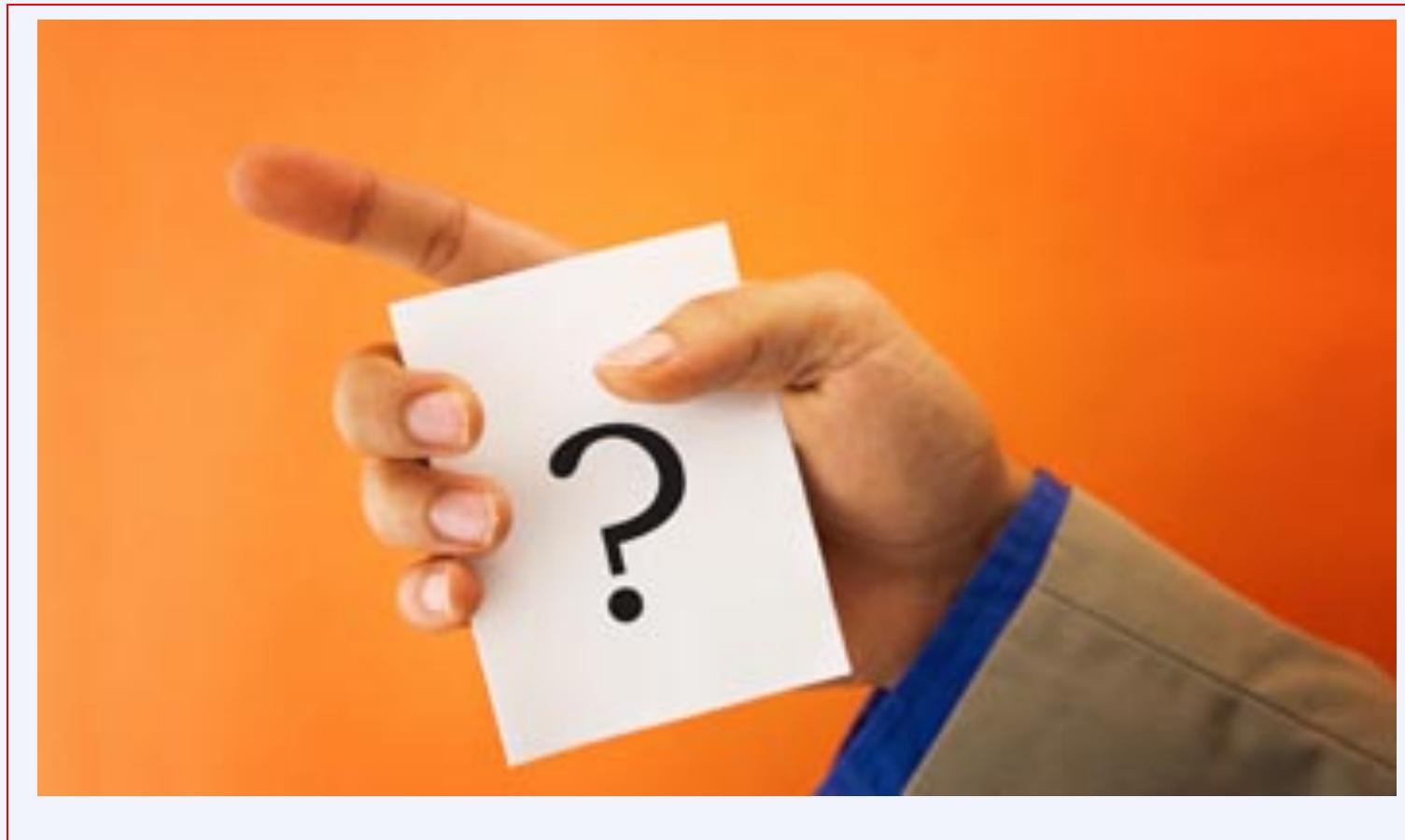
Number of evaluators

- Nielsen suggests that on average 5 evaluators identify 75-80% of usability problems.
- Cockton and Woolrych (2001) point out that the number of users needed to find 75-80% of usability problems depends on the context and nature of the problems.

Key points

- Inspections can be used to evaluate requirements, mockups, functional prototypes, or systems.
- User testing & heuristic evaluation may reveal different usability problems.
- Design guidelines can be used to develop heuristics
- Walkthroughs are focused so are suitable for evaluating small parts of a product.
- Analytics involves collecting data about users activity on a website or product

Questions





Thank You For Your Participation