

Web Usability

Understanding the User in your Web Site Audience

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Northwest OH Chapter - PRSA

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About Me

- Web Usability Consultant
- Argus Associates: Information Architect & Usability Specialist
- Usable Web
- BGSU Computer Science
- The Web Usability Anti-Guru: It depends

Overview

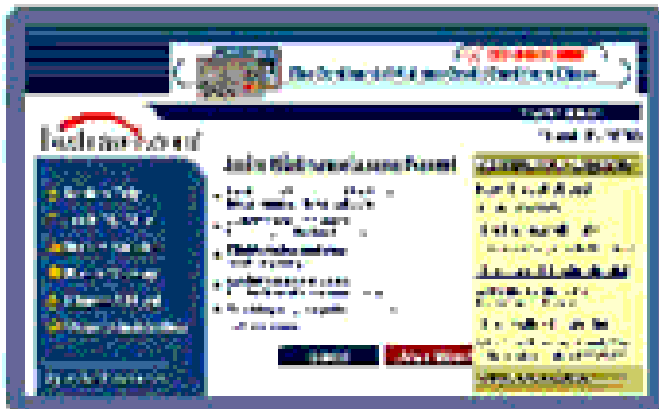
- What is usability (& public relations)
 1. Navigation: User interface designers
 2. Guidelines: “Common” sense
 3. User Research: Listen, observe
 4. Usability Testing: Prove it
 5. Finding Help: 5 questions

“Don’t Make me Think” (Steve Krug)

- We don’t read pages, we scan them
- We don’t make optimal choices, we satisfice
- We don’t figure out how things work, we muddle through

Why this is so hard

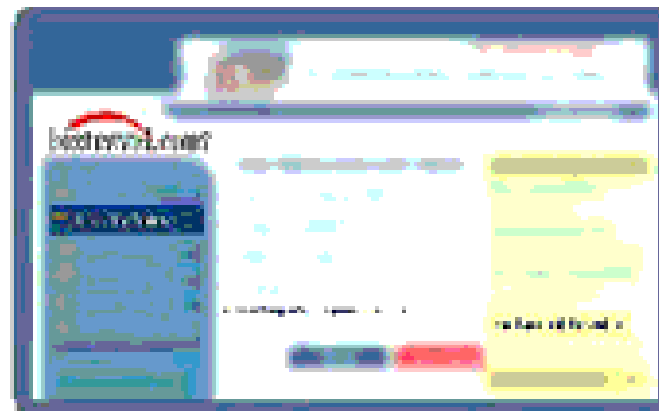
WHAT DESIGNERS BUILD...



WHAT USERS SEE...



I want to buy a ticket.



How do I check my frequent flyer miles?

Jakob Nielsen's Usability Attributes

Easy to learn

- For first time use

Efficient to use

- Important for repeat usage, measure it

Easy to remember

- Recognition > recall

Few errors

- Design errors away, easy to recover from errors

Satisfying

- You got your job done, and it was fun along the way

Standard (Academic) Definition

The extent to which a product can be used by specified users to achieve specified goals with effectiveness, efficiency and satisfaction in a specified context of use.

- It depends
- You can measure it

What is Public Relations? (ask.com)

- activities and policies used to create **public interest** in a person, idea, product, institution, or business establishment
- the goal of the public relations consultant is to create, through the organization of news and advertising, an **advantageous image** for his client
- principal instrument is the **press release**, which provides the **mass media** with the raw material and background for a news story
- identifies, establishes and maintains **mutually beneficial relationships** between an organization and various publics (Cutlip et al)

Web Usability & Public Relations

- Public interest: consumer usage of a web site
- Advantageous image: easy-to-use is part of a good online image
- Press release, mass media: The Press are an important user group BUT the trend on the web is for more direct contact with the public [<http://nngroup.com/reports/pr/> (\$250)]
- Relationships: the Internet is an increasingly important layer/channel, and the public's user interface is often perceived as the "brand"

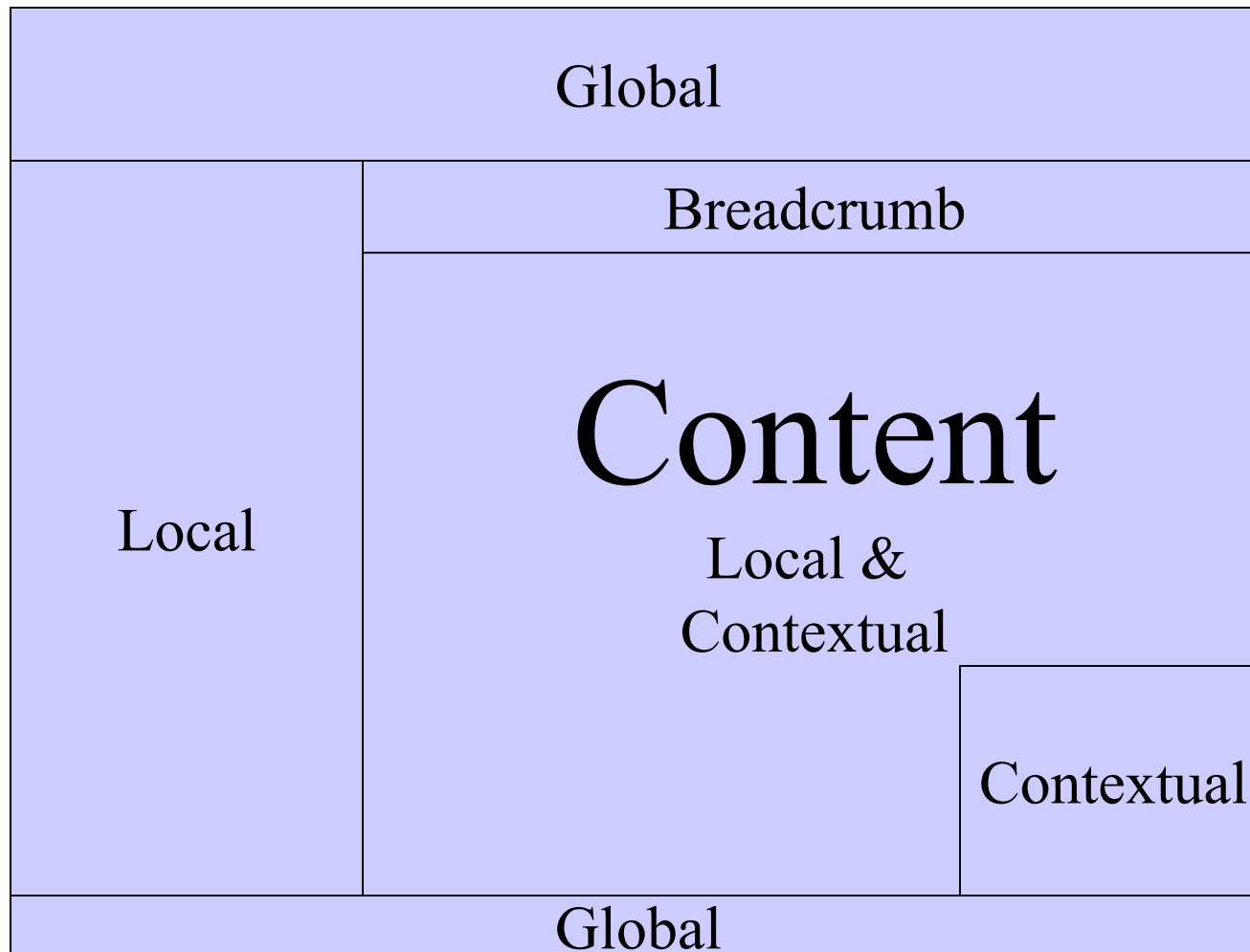
What I find interesting at PRSA Conference (October, Atlanta)

- Seminar: Web Site Writing that WOWS Users
- General Session: Are you talking to ME?
(understanding audiences)
- Workshop: Trouble with Teens (4 segments)
- Workshop: Reach African-Americans (case study to wear seat belts)
- Workshop: Using Anthropological Research in Marketing Communications

Concept: Navigation

- Everyone becomes a user interface designer
- If they cannot find it, they cannot buy it
- Conventions forming, but...
- ...It depends

My Navigation Framework



Global Navigation

- Site identification, branding
- Major sections
- Utilities
- *Almost every page*
- Can (should?) change for sub-sites
- Where-am-I indicators
- Often at the top

Local Navigation

- Specific to this section of the site
- Varies from section to section, but consistent
- Parent, sibling, child relationships
- Where-am-I indicators
- Often on the left

Products

- Epic Editor
- E3 Datasheet
- E3 Close-up
- Epic Architect
- Epic Extend
- CD-ROM Composer
- Documentum Adapter
- Oracle iFS Adapter
- Business Benefits
- Specifications
- Pricing



Epic: XML-based Editing, Conversion and Publishing

Arbortext's Epic software helps you capture, create and publish product documentation and reference materials automatically from a single source to multiple media: Web, print, CD-ROM and wireless devices.

Designed especially to meet the needs of medium and large organizations with large volumes of information, many authors and contributors, multiple workgroups, multiple languages and complex content, Epic helps you streamline and automate the entire process of capturing and sharing your business-critical knowledge.

Information Lifecycle Support



Arbortext's Epic E-Content Engine (E3)

Amazon Global & Local Navigation

The screenshot displays the Amazon.com website interface. At the top, the Amazon logo is on the left, and navigation links for 'VIEW CART', 'WISH LIST', 'YOUR ACCOUNT', and 'HELP' are on the right. Below the logo, there are buttons for 'WELCOME', 'STORE DIRECTORY', and 'SOFTWARE'. A 'TODAY'S FEATURED STORES' section includes buttons for 'BOOKS', 'CAMERA & PHOTO', 'TOYS & GAMES', 'CARS', and 'HEALTH & BEAUTY'. A dark blue navigation bar contains links for 'SEARCH', 'BROWSE CATEGORIES', 'TOP SELLERS', 'NEW RELEASES', 'KIDS', 'GAMES', 'OUTLET', and 'SOFTWARE DOWNLOADS'. The search bar contains the text 'Software' and a 'GO!' button. The browse bar shows 'All Categories' and another 'GO!' button.

TOP SELLERS

- Amazon.com Hot 100 Software Products
 - [Business & Office](#)
 - [Education & Reference](#)
 - [Games](#)
 - [Macintosh](#)
 - [New & Future Releases](#)
 - [Programming & Development](#)

Top Sellers > Amazon.com Hot 100 Software Products

Our most popular items. Updated daily.

1. [Quicken TurboTax \(Tax Year 2000\)](#)

 Windows 95, Windows 98, Windows NT, Windows 2000, Windows Me
Our Price: \$19.99

Customer Rating: ★★★★★
Usually ships in 24 hours

[Add to cart](#)
[Add to Wish List](#)

Rebate: Your price is \$14.99 after the manufacturer's mail-in rebate of \$5.00.
[Click here for more information](#)

2. [Easy CD Creator 5.0 Platinum](#)

 Windows 95, Windows 98, Windows NT, Windows 2000, Windows Me
List Price: ~~\$99.99~~
Our Price: \$84.99
You Save: \$15.00 (15%)

Customer Rating: ★★★★★
Usually ships in 24 hours

[Add to cart](#)
[Add to Wish List](#)

Contextual Navigation

- Specific to this page
- Cuts across hierarchy
- Hand-made or automated

Examples of Contextual Navigation

Customers who bought this book also bought:

[Jakob Nielsen](#)'s Alertbox, March 4, 2001:

Retaining Key Staff: What High-Tech Employees Say versus What They Do

Summary:

Never listen to what people say in response to a survey: asking high-tech employees what will keep them in their jobs provides very

Customers who bought titles by Louis Rosenfeld also bought titles by these authors:

- [Jakob Nielsen](#)
- [Jennifer Fleming](#)
- [Jessica R. Burdman](#)
- [David Siegel](#)
- [Steve Krug](#)

Assume that you have succeeded in hiring an excellent staff. How to keep it?

At the [World Economic Forum](#) in Davos, Switzerland in January 2001, Dr. [David Finego](#) presented an interesting study of employee retention in high-tech companies.



Browse more gear

[Waterproof/Breathable Rainwear -- W/B: Alternative Pants](#)

[Waterproof/Breathable Rainwear -- W/B: Gore-Tex Jackets/Pullovers](#)

e industry, we still

aring back when not which translate into has observed. Some

an

Boys' Full Elastic-waist Chino Pants



Elastic Waist Chinos go on easy, feel good all day.

- 100% cotton twill, prewashed for softness
 - Full-elastic waistband is all-day comfortable
 - Zip fly with snap closure — simpler for little hands to manage
- ▼ [Read More...](#)

[size charts](#)

Alternatives



[Boys' Cotton Pleat-Front Chino Pants](#)



[Boys' Flat-front Chino Pants](#)

Boys' Full Elastic-waist Chino Pants



Elastic Waist Chinos go on easy, feel good all day.

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- ▼ [Read More...](#)

Alternatives



[Boys' Cotton Pleat-Front Chino Pants](#)

eddiebauerKids

BOYS

GIRLS

SIZING CHARTS

KID'S ROOM

[Boys > Pants & Shorts >](#)

Relaxed Khakis

\$14.99 [Reg. \$28]

- Cut full through the hips
- Soft enzyme wash
- Unique cargo pocket
- Roomy, comfortable style
- Side pockets
- Two back pockets with flaps
- Button closure at waist
- Machine wash
- Imported

Related Links:

[View Coordinating Products](#)



NEW! - Click below to change product



Khaki

Carbon

Eddie Bauer Online Store - M...

Coordinating Products



[Hooded Nylon Ripstop Vest](#)



[Long-Sleeve Image Tee](#)



[Skechers@ Photons Joggers](#)



[Leather Jean Belt](#)

CLOSE WINDOW

Breadcrumb Navigation

- The metaphor is *path* (go “back”)
- Most implementations are *location*
- Do user get them? What are they good for?

Arts & Humanities

[Literature](#), [Photography](#)...

Business & Economy

[B2B](#), [Finance](#), [Shopping](#), [Jobs](#)...

Computers & Internet

[Internet](#), [WWW](#), [Software](#), [Games](#)...

Education

[College and University](#), [K-12](#)...

Entertainment

[Cool Links](#), [Movies](#), [Humor](#), [Music](#)...

Government

[Elections](#), [Military](#), [Law](#), [Taxes](#)...

Health

[Medicine](#), [Diseases](#), [Drugs](#), [Fitness](#)...

News & Media

[Full Coverage](#), [Newspapers](#), [TV](#)...

Recreation & Sports

[Sports](#), [Travel](#), [Autos](#), [Outdoors](#)...

Reference

[Libraries](#), [Dictionaries](#), [Quotations](#)...

Regional

[Countries](#), [Regions](#), [US States](#)...

Science

[Animals](#), [Astronomy](#), [Engineering](#)...

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Society & Culture

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- [WAIS](#) (?)
- [World Wide Web](#) (1966) **NEW!**
- [Usenet Groups](#) (5)

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World Wide Web

Location Breadcrumbs

e-greetings.com®
[Home](#) · [Sign In](#) · [Join](#) · [Index](#) · [Help](#)

Answer the following question for a chance to win \$1,000
What country is Arnold Schwarzenegger
 Germany Austria Switzerland


[Cards](#) [Music Scene](#) [Gift Shop](#) [Contests](#) [Members](#)


Welcome to Have a Nice Day!


Keep in Touch [Home](#) > [Keep in Touch](#) > Have a Nice Day

[Most Popular](#)
[Blank](#)
[Call Me](#)
▶ **Have a Nice Day**
[Hello](#)
[Miss You](#)
[Share a Smile](#)
[Thinking of You](#)
[What's Up](#)
[Write Me](#)

Have a Nice Day (7 cards) 1

Flash

[Penguin Skates](#)

Interactive

[Dress Me Up!](#)

Have a 

Path Breadcrumbs

Main Ingredient

Beans, Beef, Berries, Cheese, Chocolate, Citrus, Dairy,
Eggs, Fish, Fruits, Garlic, Ginger, Grains, Greens, Herbs,
Lamb, Mushrooms, Mustard, Nuts, Olives, Onions,
Pasta, Peppers, Pork, Potatoes, Poultry, Rice, Shellfish,
Tomatoes, Vegetables

Cuisine

African, American, Asian, Caribbean, Eastern
European, French, Greek, Indian, Italian, Jewish,
Mediterranean, Mexican, Middle Eastern, Scandinavian,
Spanish

Special Considerations: Kid-Friendly, Low Fat,
Meatless

Preparation Method

Advance, Bake, Broil, Fry, Grill, Marinade,
Microwave, No Cook, Poach, Quick, Roast,
Saute, Slow Cook, Steam, Stir Fry

Season/Occasion

Christmas, Easter, Fall, Fourth of July, Hanukkah,
New Years, Picnics, Spring, Summer, Superbowl,
Thanksgiving, Valentine's Day, Winter

Course/Dish

Appetizers, Bread, Breakfast, Brunch,
Condiments, Cookies, Desserts, Hors d'Oeuvres,
Main Dish, Salads, Sandwiches, Sauces, Side
Dish, Snacks, Soup, Vegetables

Path Breadcrumbs

[Browse](#) > [Mushrooms](#) > [Asian](#) > [Soup](#)

1 - 3 of 3

[CHINESE-STYLE SPINACH AND MUSHROOM SOUP](#)

Bon Appétit October 1997

[HOT AND SOUR SOUP WITH GINGER](#)

Bon Appétit April 1994

[SHITAKE BOK CHOY SOUP WITH NOODLES](#)

Gourmet February 1999

The Point: That's Nice, but Navigation Questions Remain

- How should you integrate global & local navigation?
- When should you support comparison and/or coordination shopping?
- Are breadcrumbs useful? Location or path? What about the browser? What syntax should you use? What if you have a database?

Concept: Guidelines

- Inspections (without users)
 - Expert review (e.g. Navigation Stress Test)
 - Heuristic evaluation (merged opinions)
- Guidelines
 - Many to choose from
 - Most from experience, not research (usability.gov/guidelines/)

Navigation Stress Test

- “Randomly” selected (deeper) pages
- Printed out for lower fidelity, no peeking
- Where am I?
- What is here?
- Where can I go?
- <http://keith.instone.org/navstress/>

Navigation Stress Test Questions

Navigation Question	Mark Up on the Paper
What is this page about?	Draw a rectangle around the <i>title of the page</i> or write it on the paper yourself
What site is this?	Circle the <i>site name</i> , or write it on the paper yourself
What are the major sections of this site?	Label with X
What major section is this page in?	Draw a triangle around the X
What is "up" 1 level from here?	Label with U
How do I get to the home page of this site?	Label with H
How do I get to the top of this section of the site?	Label with T
What does each group of links represent?	Circle the major groups of links and label: <ul style="list-style-type: none">• D: More details, sub-pages of this one• N: Nearby pages, within same section as this page• S: Pages on same site, but not as near



FALCONS

Official Athletic Site

Bowling Green State University

Meet the Team • Schedules/Results • Almanac • News



THE SOURCE FOR OFFICIAL TEAM MERCHANDISE!



Online Partner

Tickets

Travel

Schedules

Site Map

On Campus

Traditions

Links

Online Store

Audio/Video

Falcon Club

PLAY Trivia

Choose Sport

Hockey

Hockey Advances To "The Joe"

Williams scores in OT for 2-1 win at NMU; BGSU is lowest seed ever to advance to semifinal round.

March 13, 2001

[Box Score](#)

MARQUETTE, Mich. - The Bowling Green State University hockey team became the lowest seed ever to advance to the semifinal round of the Central Collegiate Hockey Association Championships, after posting a 2-1 overtime victory against Northern Michigan University Tuesday night (March 13). The Falcons and Wildcats met in the CCHA Play-In game at NMU's Berry Events Center.

The win sends the ninth-seeded Falcons to the CCHA's semifinal round Friday (March 16) at Joe Louis Arena in Detroit. BGSU will meet top-seeded Michigan State University in a 5:00 p.m. start at "The Joe." The second semifinal will match the third seed, Michigan, against fourth-seeded Nebraska Omaha.

Tuesday's win marked the second time in as many games that the Falcons advanced by scoring in the extra



Dennis Williams scored the game-winner at 14:54 of overtime against NMU.

[Ice Hockey Home](#)



BUY IT NOW

HEADLINES

Nielsen's Usability Heuristics

- Visibility of system status
- Match between system and the 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, recover from errors
- Help and documentation

Web Heuristics

- System status, Recognition: Where am I? Where can I go next?
- Match with real world: Labels in users' language
- User control: Forcing font, sizes, widths
- Standards: HTML and web standards
- Error prevention: Forms
- Flexibility: Bookmarkable and linkable
- Minimalist: Progressive detail
- Error recovery: Search
- Help: Embedded documentation

Guidelines to Conventions and Templates

- Principles: goals which guide design decisions
- Guidelines: specific to a particular domain of design (see Usable Web's Comprehensive Guidelines)
- Conventions: specific design decisions **you** have chosen to follow for your site
- Templates: layouts that “enforce” the conventions

Sample Guidelines

1. Animation should not disrupt your reader's concentration (Yale)
2. Provide useful content on each page (Sun)
3. Write in inverted pyramids (Nielsen)
4. Your users need to know where they are (IBM)

Possible Conventions

1. Animation must be at top of page so it can be scrolled out of sight
2. Navigation pages include a sentence about each link
3. First paragraph of every page summarizes the entire page
4. Highlight current sections in global and local navigation

The Point: Guidelines help, but not the only answer

- Common sense is not very common
- There is a lot of low-hanging fruit
- Guidelines are nice but not very useful in the trenches
- Embed your design decisions in templates

Concept: User Research

- Interviews
 - Q&A
- Observations
 - Environment, work in context
- Activities
 - Fun, think out of the box
- Participation
 - Group problem solving, awareness

Interviews

- Just talking with (listening to) users
- User wants vs. user needs
- What they think vs. how they act
- One-on-one vs. group think

Observations

- Anthropology – “Users in the Mist”
- Ethnography - Culture

Observations



Activities

- Talking gets boring, let's *do something*
- Card sorting
- Exploratory usability testing
- Paper prototyping: perform a task, build a page

Participation

- “Participatory design”
- Users involved in design process (but not designing directly)
 - Get buy-in
 - Provide insights
- Stakeholders involved in design process
 - Meet & understand users

User Research Outcomes

Lists

- Users, environments, content, tasks, issues, roles, insights

Diagrams

- Task flowcharts, workflow, affinity

Tables

- Users x Task, Users x Content

Profiles and Scenarios and Personae

- Users, environments, tasks, photographs

- A basis for making informed design decisions
- A user-centered way of strategic thinking

Other User Research

- Surveys
- Log analysis
- Focus groups
- User feedback

The Point: There is still so much to learn

- User research, not just audience research
- Users are not designers, but designers are better with empathy & understanding
- Context, context, context

Concept: Usability Testing

- Give representative users realistic tasks, watch quietly, be amazed

Concept: Usability Testing

- Give representative users realistic tasks, watch quietly, be amazed



First Reactions

- “It is such a rush. This is what I want to be doing!”
- “Not good news. A real eye-opener. We gotta get the developers involved so they can see where people are struggling.”
- “The testing was not too hard, but now how do we get the results taken seriously?”

Planning usability testing

- Purpose and audience of site
- Usability goals
- Tasks
- Participants, scheduling, payment
- Materials
- Setting
- ...Expect to hear bad news

Doing usability testing

- Introduction for participant, list of tasks
- Watch quietly
- Record behavior (take notes, tape)
- Interact with participant
- Debriefing, questionnaire, payment

Benefiting from usability testing

- Tabulate data
- Findings
- Recommendations
- Actions

Levels of Commitment

- Opportunistic usability testing
 - Anything is better than nothing
- Quick and dirty
 - Some planning, but not too much
- Multi-purpose rooms
 - “Hey, lovebirds, at least get a room”
- Full usability labs
 - Cha-ching

Opportunistic

- Do mini usability tests whenever/wherever opportunity arises
- 15 minutes = opportunity
- Violin lessons, after short meetings, cleaning lady, nosy relatives
- Jakob's 1-hour usability test: tradeshow, laptop, 50-line email

Quick and Dirty

- Shortcuts on the planning: get convenient participants, not ideal ones
- Convenient locations
- Realistic (self-made) tasks, sometimes
- Debriefing very important: ask why
- Shortcuts on the write-up

Multi-Purpose Rooms

- Use available space as laboratory-for-a-day
- Bring in portable equipment
- Convert an empty office into a full-time lab
- Use a lab for other things to help justify cost
- Since people coming to you, do more planning

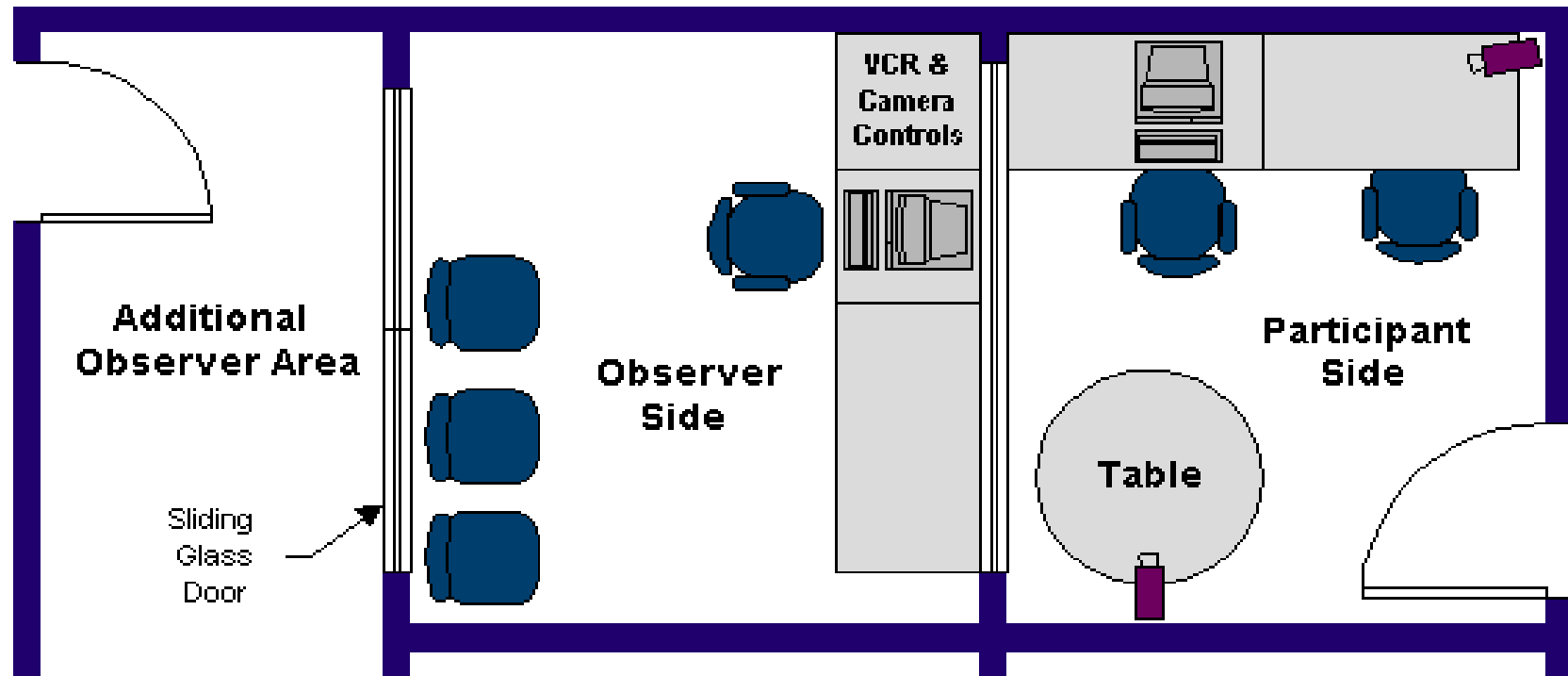




Full Usability Labs

- Build rooms just for this purpose
- Adjoining, sound-proofed rooms
- Video cameras, scan converters, two-way mirrors, microphones, etc
- Cost: \$80-120k
- Do it all of the time to recoup investment (also very good for marketing usability)

Microsoft Lab Layout



Comparison

	Opp.	Q&D	MPR	Labs
Plan	.25	4	5-15	5-15
Do	.50	4	6-10	6-10
Follow-up	.25	4	5-15	5-15
Hours	1	12	16-40	16-40
Users	2	3	4-5	4-5
Deliverable	Email	Text	Video-	Video+
Start-up	0	0	\$1-30	\$80+

Variations of Usability Testing

- Most common: Make specific parts better (3-5 users, repeat often)
- User research: one of many such activities
- Benchmarking, external (comparative analysis)
- Benchmarking, internal (ROI)
- Prototyping: paper, computer
- Quality assurance (usability goals)
- Research (“statistically significant”)
- Shock usability testing (get CEO to notice)

The Point: It's painful but worth it

- I've always been surprised & learned something
- Easy to do on a small scale, can also become institutionalized
- Flexible: qualitative & quantitative

Re-cap of the Concepts

1. Navigation: crucial element of the experience, framework evolving, but it depends
2. Guidelines: some of this is “common sense”
3. User Research: there is so much we still do not know, user-centered design one way to learn more
4. Usability Testing: versatile technique based on observing users trying to do something

5 Questions to Ask Web Developers

- Do they really know about usability or is it just a new fad for them?

1. What do you think of Jakob Nielsen? (see useit.com)

- I dunno who he is. (wrong)
- A #\$\$%!@ idiot. (wrong)
- My guru, I take everything he says as gospel. (half wrong)
- He is usually right, but often I have to go deeper to apply it to our situation.
- Follow-up: Who is Keith Instone?

2. What is the difference between usability testing and heuristic evaluation?

- Huh? (wrong)
- Oh, those are some of those usability things – we do them all of the time. (No they don't, wrong)
- Heuristic evaluation is a type of testing. (wrong)
- Usability testing involves real users while heuristic evaluation is only an expert's opinion.
- We use heuristic evaluation to catch the low hanging fruit on very early designs and then test with users later. (common)

3. What do you know about Flash?

- Oooh, it is cool, I just spent a week learning it and want to try some things out on your site. (wrong)
- It sucks and should never be used on the web. (wrong)
- I know its limitations and value on the web (it is not appropriate for most sites today) and I can bring in the Flash experts if they are needed.

4. Should we have a site map on our site?

- No, I have never found them to be very useful. (wrong)
- Of course, all sites should have one. (wrong)
- It depends. Who is your audience, what are they trying to do at your site, ...

5. Which are better: location or path breadcrumbs?

- Huh? (likely)

Thanks!

- keith@instone.org
- <http://keith.instone.org/presentations/>
- Bring on lunch!