

Beyond Counting Hits: Strategies for Evaluating ISE Websites

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Overview

A full-day workshop in 75 minutes

- **Website Design Considerations**
- **Formative Evaluation**
- **Outcome / Impact Studies**
- **Recruiting**
- **Issues to Consider**
- **Resources**

Website Design Considerations

- Target population (user profiles)
- Characteristics of use (context)
- Differentiated users and outcomes
- Concrete/observable user goals
- Concept development & testing

Hope is not a strategy.

-Thomas McInerney

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Formative Assessment

- Iterative Design: Make changes on the fly
- Concept Testing (Focus Groups, Surveys, etc.)
- Rapid Prototyping - Paper Mock-Up Usability Tests
- Beta Tests
- Usability / Navigation
- Heuristic evaluation

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Formative Assessment: Usability/Navigation

- Think-alouds
- Task completion
- Appeal / Attitude
- Comprehension
- Reading level
- Universal Design



-> Center for Applied Special Technology: <http://www.cast.org/>

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Of course it works in practice,
But will it work in theory?

-French Research Saying

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Formative Assessment: Heuristic Evaluation

- Content or Web Usability Experts
- Establish set of guiding questions or evaluation rubric (e.g., consistency and standards, error handling, etc.)
- Cheaper and quicker than full blown user testing
- Can help to focus future research efforts on most important elements

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True friends stab you in the front.

- Oscar Wilde

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Usability = Can they do it?

Impact = Do they do it?
And with what effect?

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Outcome Assessment Methods

- Web log analysis
- User surveys
- User interviews/focus groups
- Content analysis of user-generated materials
- Institutional data analysis
- Assessments of learning
- Offsite actions
- Web-usage diaries

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If we knew what we were doing, it wouldn't be called research would it?

- Albert Einstein

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Outcome Assessment: Web Log Analysis

- Numbers:
 - Total hits vs. unique IP addresses
 - Daily, weekly, monthly (etc.) traffic
 - Repeat visitors
 - Downloads (streaming, RSS sign ups)
- How long do users stay online ?(stickiness)
- What pages/activities are used or done? (depth)
- What path do users take through the site?
- What site do users link from?



Freebie:
Google Analytics

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You might get something that looks like this:

```
209.240.221.71 - - [03/Jan/2001:15:20:06-0800] "GET /inauguration.htm HTTP/1.0" 200 8788 "http://www.democrats.com/" "Mozilla/3.0 WebTV/1.2 (compatible; MSIE 2.0)"
```

Here's what it means:

Server Log Info	Component Name	Meaning
209.240.221.71	remolehost	Name of the computer requesting the web page.
-	rfc931	The name of the remote user. This field is usually blank.
-	authuser	Login of the remote user. This is also usually blank.
[03/Jan/2001:15:20:06-0800]	date	Date and time of the request.
"GET /inauguration.htm HTTP/1.0"	request	URL of the file requested. This is noted exactly as the user requested it.
200	status	Error or status code generated by the request.
8788	bytes	Size (in bytes) of the document returned to the client.
http://www.democrats.com/	referrer	The URL the visitor came from immediately before they requested the file.
"Mozilla/3.0 WebTV/1.2 (compatible; MSIE 2.0)"	agent	Records the visitor's browser and operating system.

Source: http://www.netmechanic.com/news/v04/promo_no11.htm

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Outcome Assessment: User Surveys

Types of user surveys:

- Email invitation (e.g., site component analysis)
- Registration
- Real-world user intercepts
- Pop-ups
- Self-selected surveys on the site

Tips:

- Think creatively about recruitment
- Offer incentives

Things you can find with surveys:

- User demographics
- User attitudes or beliefs
- Related behaviors or experiences
- Users' wants and needs
- Where else they go

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Outcome Assessment: User Focus Groups

• Face-to-Face vs. Virtual



Discussion Topics:

- Interest in concept/general appeal
- Language issues/comprehension
- Usability/functionality
- Engagement/interactivity
- Current/potential uses

Tips:

- Audience Considerations (language, content, etc.)
- Establish Ground Rules
- Consider exercises that give people the ability to respond individually

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Outcome Assessment: User-Generated Materials

Examples:

- User submissions
- Chat log or discussion forum transcripts

Analysis:

- Content analysis (rubric)
- Peer or expert critique
- Look for themes linked to objectives
- Get ideas for further site development

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You can go a long way with a smile. You
can go a lot farther with a smile and a
gun.

- Al Capone

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Outcome Assessment: Institutional Data

Use the data you already have!

Examples:

- TV**
 - TV Ratings
 - # Call-in or write-in messages
- Museum**
 - Gate Count
 - Membership numbers
 - Gift-shop purchases linked to content
- Web**
 - Registration
 - Downloads
 - Donations

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Outcome Assessment: Assessment of Learning

Types:

- Integrated assessments (quizzes or games)
- Linked/referred assessments
- Third party assessment

Analysis:

- Content, social, and procedural knowledge
- Transfer

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Outcome Assessment: Off Site Actions

What:

- Behavioral Change: Engage in activities/with others
- Remember/Recall information

How:

- short vs. long-term studies (immediate vs. delayed)
- Public participation
- Purchase decisions

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Outcome Assessment: Web Usage Diaries

What:

- Looking for patterns,
- lasting impressions,
- unique experiences,
- Factors that influence use

How:

- Offer incentives
- Daily, weekly or periodic questions -> online
- Reminders!

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Do not let what you cannot do interfere
with what you can do.

- John Wooden

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Logistical Issues

- Legal stuff: (IRB approvals, Human Subjects, informed consent)
- Recruitment:
 - Incentives
 - Sources for contacts (schools, colleges, afterschool programs, clubs, churches, kids of employees, Craig's list)
 - Variety of abilities and levels of experience, maturity, etc, reading ability, technology skills and comfort level
- Sampling

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Other Considerations

- Significant treatment (do you have one?)
- No silver bullet, no one solution for all
- No single strategy (triangulation)
- Timing (staged and iterative)
- External and/or internal evaluator
- Targeted vs. realized audience
- Critical competitors
- Budgeted activity

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Belief doesn't change reality.

- C. Everett Koop

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Resources

General:

Research-Based Web Design & Usability Guidelines. Sanjay Kovani, Robert Bailey, Janice Nail . (<http://usability.gov/pdfs/guidelines.html>) (2004)
Paper Prototyping. Carolyn Snyder (2003)
Observing the User Experience. Mike Kuniavsky (2003)
Don't Make Me Think: A Common Sense Approach to Web Usability. Steve Krug (2000)
Handbook of Usability Testing: How to Plan, Design, and Conduct Effective Tests. Jeffrey Rubin (1994)
Jakob Nielsen's Alertbox <http://www.useit.com/alertbox/>

Children:

- Usability of Websites for Children: 70 Design Guidelines - Gilutz and Nielsen (2002)
- Guidelines for Usability Testing with Children - Hanna, Ridsen, and Alexander (1997)
- CHI-Kids listserv subscription and message archive (sponsored by SIGCHI) <http://listserv.acm.org/archives/chi-kids.htm>

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