PROMOTING, ESTABLISHING AND INSTITUTIONALIZING USABILITY ENGINEERING

CHI 2003 Tutorial

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PROMOTING, ESTABLISHING AND INSTITUTIONALIZING USABILITY ENGINEERING

Schedule

TOPIC	TIME		
Introduction	9:00	-	
Overview		-	9:20
Promoting Usability Engineering			
Focus and Goals	9:20	-	
The Usability Champion as Change Agent			
Learning to Speak the Language of Engineers			
Learning to Speak the Language of Business Organizations		-	10:30
BREAK	10:30	-	11:00
Learning to Speak the Language of Business Organizations	11:00	-	
The Power of Education			
Case Studies			
Summary		-	12:30
LUNCH	12:30	-	2:00
Establishing Usability Engineering			
Focus and Goals	2:00	-	
Organizational Roles and Structures			
Writing the Organizational Plan		-	
The First Year			
Overcoming Common Problems			
Case Studies			
Summary		-	3:30
BREAK	3:30	-	4:00
Institutionalizing Usability Engineering			
Focus and Goals	4:00	-	
Leveraging Your Resources			
Getting UE Integrated into the Development Methodology			
Focusing on a Corporate Wide Impact			
Staffing			
Case Studies			
Summary		-	5:30

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Objectives of the Tutorial

This Tutorial is aimed at anyone (developers, usability engineering practitioners and managers, marketers, trainers, etc.) who has taken on or would like to take on the role of "Usability Champion" in a software development organization. The purpose of this course is to teach strategies for:

- Gaining the initial support you need to introduce usability engineering expertise, techniques and methods into your development organization
- Designing a usability engineering organization tailored to your company's organizational structure and corporate culture, and winning approval and funding to implement it
- Institutionalizing usability engineering within your development organization and development methodology

Strategies taught will apply to introducing Usability Engineering into any kind of software development organization, be it a commercial vendor, a Web development organization or an internal traditional software development organization.

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PROMOTING USABILITY ENGINEERING

▶ **Learning to Speak the Language of Business Organizations**

➤ Promoting Your Unique Skills

➢ User Profiling

➢ Task Analysis

➢ Usability Goal Setting

➢ Structured Design

➢ Usability Testing

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▶ **Learning to Speak the Language of Business Organizations**

➤ Linking Business Goals to Usability Goals

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✓ **Benefits of Investing in Web Usability**

- Site usability is the equivalent of good - or great - customer service

    - Consider a client's current level of investment in traditional customer service channels

    - They need to make an equivalent investment in the usability of a site meant to replace or augment traditional channels of customer services

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✓ **Benefits of Investing in Web Usability** (cont.)

- Insures customers can find what they want to buy - prerequisite to sales

- Reduces errors in business transactions - and corresponding costs to fix

- Motivates customers to choose to use the site over traditional methods of doing business - insuring ROI on investment in Web site

- Helps insure customers will return repeatedly to the site - contributing to ROI

- Usability done right in initial development is always cheaper than fixing problems identified after launch

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✓ **Risks of *Not* Investing in Web Usability**

- Lack of usability on an e-business site is the equivalent of poor customer service:

  - CSR: Hello. Blah blah blah blah blah . . .

  - Shopper: Hello, I would like to place an order.

  - CSR: Do you know the name and extension number of the order taker?

  - Shopper: Of course not! I just want to order something! Don't you know how to help me?

  - CSR: Heck no, you need to to know who to ask for!

  - (much later, after finally finding out how to reach the order taker, and then being put on hold, and then finally giving order info)

  - Shopper: Oh, I just realized I need to make a change - can you do that?

  - CSR: If you don't know the name and extension of the order changer, you will just have to wait until your order arrives, then send it back and reorder . . .

- Would *you* shop on-line with this company again??

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✓ **Risks of *Not* Investing in Web Usability**

- Customers unsatisfied with quality of customer service - erodes customer loyalty

  - Unacceptable learning curve to accomplish desired goals

  - Unacceptable task time to accomplish desired goals

  - Unacceptable errors/confusion during task completion

- Lost sales because customers cant find what they want to buy

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✓ **Risks of *Not* Investing in Web Usability** (cont.)

- Customers make errors in business transactions that cost time and effort to rectify, and create customer dissatisfaction

- Customers refuse to use Web site and return to traditional methods of doing business - reducing ROI on Web investment

- Customers defect to competitor companies whose Web sites are more usable

- Costly rework of site after initial launch to fix problems

**The lower the investment in usability,
the higher the project risk**

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▶ **Learning to Speak the Language of Business Organizations**

➢ Linking Business Goals to Usability Goals (cont.)

- ➢ Increased Productivity

- ➢ Increased Profit Margin

- ➢ Decreased Training Costs

- ➢ Decreased Customer Support Costs

- ➢ Improved Customer Service

- ➢ Decreased Development Costs

- ➢ Decreased Maintenance Costs

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▶ **Learning to Speak the Language of Business Organizations**

➤ Using Statistics to Argue for Investment in UE

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Wasted expense

Source: Forrester Research, Inc., September 1998

Forfeited revenue

Lost customers

Eroded brand

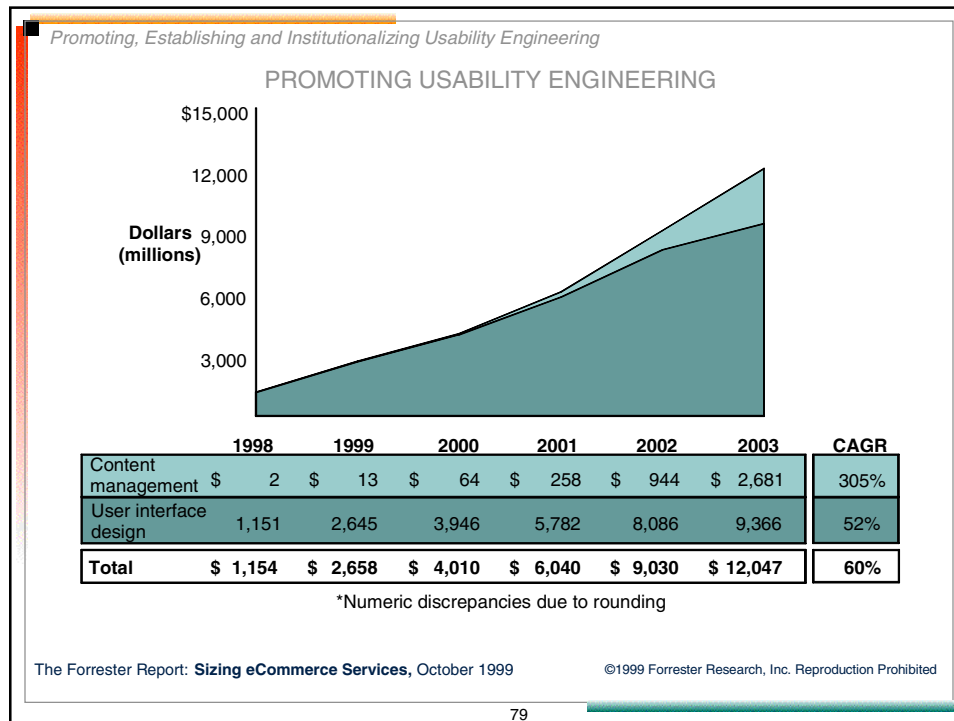| Ill will from 10 times the monthly traffic, as visitors call 10 friends about their poor experience | **For every 1M visitors, 40% don't return due to incomplete content; lost cost of their lifetime value is $2.8M** | Customers can't find products; sales under perform by 50% or more | **$1.5M-$2.1M wasted on site redesigns that don't fix the right problem** |

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	1998	1999	2000	2001	2002	2003	CAGR
Content management	$ 2	$ 13	$ 64	$ 258	$ 944	$ 2,681	305%
User interface design	1,151	2,645	3,946	5,782	8,086	9,366	52%
Total	**$ 1,154**	**$ 2,658**	**$ 4,010**	**$ 6,040**	**$ 9,030**	**$ 12,047**	**60%**

*Numeric discrepancies due to rounding

The Forrester Report: **Sizing eCommerce Services,** October 1999

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- **University of Maryland's Ben Shneidermen, user experience guru -**

- **"Performance decreases 5% to10% when designers change the color and position of interface elements. It slows down 25% when developers switch terminology on buttons like "submit" and "search"**

- **The solution? "Consistency has to be a basic component of the design strategy." Clumsy navigation is one reason why, on average, only 2.7% of site lookers turn into buyers."**

  Forrester - August 1998

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- **52 – 76% of online customers abandon their shopping carts before completing online purchases**

        http://taskz.com/DesignData/general_user_indepth.htm

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✓ **Source of following statistics:**

- **Georgia Institute of Technology, Atlanta GA**

    - **Georgia Tech Research Corporation**

        - **Graphic, Visualization & Usability Center (GVU)**

- **GVU's Tenth WWW User Survey, May 14, 1999**

- **http://www.gvu.gatech.edu/user_surveys**

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▶ **Case Studies**

➤ A Hardware/Software Vendor – The Case

  ➢ Individual project leaders in different development divisions hired in 4 decentralized UEs

  ➢ All 4 having difficulty establishing role

  ➢ 1 eventually left

  ➢ 1 of remaining UEs picked a mission-critical, high-visibility project about to release, recruited 1 of the other UEs from another division, and unsolicited:

    » Planned and conducted a usability test

    » Recruited several VPs of development to act as test users

    » Users could not complete simple, basic tasks in an hour, made numerous errors

  ➢ Results:

    » Product held back from release

    » UE group formed, instigating UE named manager

      › Reported directly to one of VPs

      › Grew to about 14 people within a year and a half

      › Gained wide influence over development organization

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▶ **Case Studies**

➤ A Hardware/Software Vendor – The Analysis

  ➢ UE took a strategic perspective in:

    » Choice of project, UE technique, test users

  ➢ Recognized and dealt with:

    » Resistance to change (myths and attitudes, org incentives, structures, practices)

    » Courting potential allies (other UEs and VPs responsible for sales success)

  ➢ Recognized/created opportunity to effect change

    » Created a high-visibility disaster

  ➢ Exploited success factors

    » Exploited testing technique

    » Established credibility

    » Clarified value-added

  ➢ Accomplished goals:

    » Demonstrated what UE is and what it's bottom-line value is to key audience

    » Won resources for next phase

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▶ **Case Studies**

➤ An Insurance Company – The Case

  ➢ $3 million development effort failed

   » Independent Agents refused to use new sales application, citing difficulty of learning and using

  ➢ Manager brought in external UE consultant

   » Education

   » Redesign

   » Usability Testing

  ➢ One year later

   » Hired in a UE from the outside

   » Formed a small group of retrained internal employees

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▶ **Case Studies**

➤ An Insurance Company – The Analysis

  ➢ Opportunity to effect change

   » A high-visibility disaster

  ➢ Exploited the power of education

  ➢ Exploited success factors

   » Exploited testing technique

   » Established credibility

   » Clarified value-added

  ➢ Accomplished goals:

   » Demonstrated what UE is and what it's bottom-line value is to key audience

   » Won resources for next phase

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