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SIMON FRASER UNIVERSITY
SURREY



IAT 432 Spring 2011

Design Evaluation

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IAT 432

IAT 432 is an elective for all SIAT students (and other Depts).

B.Sc. -- Science credit

Was IAT 332 (same course).

Instructors

Instructor: Dr. Alissa Antle

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Schedule & Format

- Monday 10:30 – 11:20 Lecture D100
 - Room 3310
 - Evaluation in general and different methods in detail.
- Mondays – Studio Labs 101 102 103
 - Room 3130
 - Actively work on things related to using evaluation methods in (team) assignments
 - In-class exercises & discussions
 - Time for Q&A.

Readings/Textbooks

- Rubin, J. Handbook Of Usability Testing, 1994.
- Martin, David, *Doing Psychology Experiments*, Thompson, 2004.
- Other posted articles available online.

In bookstore and library reserve.

Other Good Books w/ Evaluation sections

- Preece, Rogers and Sharp, *Interaction Design: Beyond Human-Computer Interaction*, John Wiley & Sons, 2002.
- Stone, Jarrett, Woodroffe, Minocha, *User Interface Design and Evaluation*, Open University, MK, 2005.
- Dix, Alan et al. *Human Computer Interaction (Chapter 9 reading included in course as a handout)*.

Course Web Site

- www.antle.iat.sfu.ca/courses/iat432
- Course Syllabus is posted
- All readings, assignments, studio preps, supporting documents
- Course Policies, resources, announcements and contact info.

Assessment

- Participation & studio prep exercises: 10%
- 5 Team assignments: 50%
- Exam: 40%

Final Exam

- TUE 19 APR 12:00 - 15:00
- Short and long written answers
- Set of questions given out early in term
- Goal: Guide to learning vs. random memory test.
- No midterm.
- You must pass the final exam.

Policies

- Conduct
- Late assignments
- Plagiarism
- Illness

See Announcements on course website for details.

Conduct

In class --

- Be on time or enter quietly
- Mobiles OFF
- Internet OFF
- Laptops for course related work ONLY.
- Professional conduct.

Skills for Success

- Take notes in lecture
 - Do the readings *before* class
 - Prepare for studio workshops *before* class
 - Use exam questions as a study guide
 - Flag team problems early.
-
- Writing & critical thinking
 - Following instructions
 - Design interpretation of evaluation results

This Week's Studio

- How to studio labs work
- Attendance
- Teams for Assignment 1
- Monday's lecture will be the material for the studio labs

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Introduction to Design Evaluation

Terms

- Evaluation
- Data
- Information
- Design evaluation
- Usability
- User experience
- Summative evaluation

WHY DOES UI DESIGN NEED EVALUATION?

Beginning in 1980's

- Change in use (from testing system)
- (to) Demand for productivity
- Change in user population
- Demand for competitive advantage

In late 1990's & 2000's

- Moving off the desktop and into everyday life

COSTS OF NOT EVALUATING

Costs of ...

- Fixing
- Customer, Technical and Web Support
- Upgrades/patches
- Training
- Lost competitive advantage
- Damage to company reputation

USER CENTRED DESIGN

- Beginning in 1980's
- Not common until 1990's
- Key elements
 1. Focus on users & tasks (IAT 201)
 2. Increasingly "context" or environment
 3. Empirical measurement ("data")
 4. Iterative design

WHY USABILITY STUDIES?

_____ require(s) usability studies

- Satisfied users/clients
- Competitive advantage
- Commitment to user centred design (UCD)
- Avoiding costs
- Ensuring good design.

THIS COURSE

Six main units organized around evaluation methods:

1. 2. 3. Usability Studies
 - Heuristic Evaluation
 - Observational Usability Test
 - Controlled Experiment
4. Experience Study- Field Study
5. Interface Critique
6. Other methods (e.g., eye tracking)

Before a method comes ...

- A framework
- A way to think about every evaluation
- Questions to answer that help you chose the right method ...

EVALUATION FRAMEWORK

1. Why do the evaluation?
2. When should the evaluation be done?
3. Where should the evaluation be done?
4. Who should be involved?
5. What dimensions of usability or user experience (UX) should be evaluated? What kind of data to collect to evaluate? What kind of interpretation is used to get design information?

Also [How to do the evaluation? How to use the info generated in the evaluation?]

WHY?

- Why do the evaluation? GOALS
- CLASS: Why might you do an evaluation throughout a product's life cycle?

WHEN?

- When should you evaluate? At what STAGE in product development?
- Formative evaluations
- Summative evaluations

WHERE?

- Where should you evaluate? What STYLE or location of evaluation?
- Development offices
- Laboratory
- Field
- Quasi-field/lab

WHO?

- Who will be the evaluator(s)? Who will be evaluated?
- Experts on UI design or humans (Analytical Methods)
- End Users (Participatory)
- CLASS: How can you find out things from users?

WHAT DIMENSIONS?

- What dimensions of usability or user experience should be evaluated?
- Usability [efficiency, effectiveness, satisfaction]
- User Experience [fun, artistic, culturally sensitive etc]
- Other?

WHAT DATA?

- What kind of data should be collected? How do we measure dimensions of usability or user experience?
- Quantitative (numeric)
- Qualitative (words, pictures, icons ...)

WHAT APPROACH TO INTERPRETATION?

- What kind of interpretation?
- Interpretation is required go from data to design information.
- Two kinds of interpretation:
 1. Subjective Methods
 2. Objective Methods

Framework: Summary

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5. What dimensions of usability or user experience (UX) should be evaluated? What kind of data to collect to evaluate? What kind of interpretation is used to get design information?