

## Final Exam

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- Weds, 12/12, Snell 246
- Coffee & donuts if you all turn in TRACE reviews!
  
- Closed book
- Cumulative / Integrative
- Focus on new material, but building on and referencing what we talked about before the midterm.
  
- No questions on:
  - Java; Human subjects; Accessibility; Design guidelines

2



## Final Exam

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- 20% Concepts
- 15% UI Critique (focus: web, mobile & game)
- 25% Design problems
  - Design for web, mobile, desktop
  - Choose / design around UI devices
- 40% Analyzing & Reporting Usability Test Results
  - Given a study plan and resulting data, analyze & sketch report
  - Quantitative and qualitative components



## Qualitative Methods

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- Given example text responses from test users, analyze themes
- Concepts:
  - analytic induction
  - thematic analysis
  - content analysis
  - ethnography

4



## Heuristic Evaluation

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- When to use?
- Nielsen's 10 heuristics
- Pinelle's heuristics
- Nielsen's severity scale
- Number of evaluators needed & why
- How to document
- How to address issues in design
- How would you develop new heuristics?
  - e.g., Pinelle

5



## Communicating Results

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- Kinds of reports
  - Informal formative usability study report
  - Formal summative comparison study report
  - Elements and structure of each
  - When each is used
- Business Cases for Usability
  - Kinds of returns
  - Kinds of costs
  - Structure of a ROI analysis

6




## UI Hardware

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- Classes of IO devices
  - direct/indirect, discrete/continuous
  - Pros/cons of different kinds of devices; when to use each
  - What are sample critiques that Norman had of natural interfaces? That Nielsen had of the iPad?
  - Give an example application of: tangible UI, brain interface, augmented reality, VR, natural interfaces, etc.


7



## Designing for the Web

- Differences from desktop GUIs?
- How to provide location info.
  - CSS look and feel; breadcrumbs
- How to provide navigation.
  - Link to home; site map; search
- Design/development methodology
  - How to map info structure to pages
  - How to do usability/heuristic testing
- Fogg: credibility
  - Features that increase/decrease credibility

8



## Designing for mobile

- Differences from desktop UIs?
- Development methodology
- Importance of simplicity, external consistency
  - How to simplify the UI
- Leung & Chaudry findings
  - Best widgets, navigation for low lit users?
  - Explain the "gray digital divide" wrt mobiles
  - Explain "multi layered interface" and its benefits
  - What were the main differences in results for elders vs. young users in the Chaudry study?
- How do you design for "supermarket moments"?

9