Rapid Prototyping

…and its role in user-centered design

Loren J Donelson
INSC 540

Roadmap
1. Motivation
2. Context
3. Process
4. Benefits/Pitfalls
5. Closing

Motivation
- BioMediator
- User Conceptualization
- Interfaces to Complex Tools

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Context
- Not building stuff from lasers
- Assists user-centered design

What is Rapid Prototyping?
“…characterized by producing a working prototype during the primary progress of the development cycle…”

- Evolutionary or Throwaway

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The RP Loop
- Analyze
- Build
- Evaluate

Process – Identify/Analyze
- User tasks
- User needs
- User expectations
- Tools

Process – Build
- Tool independent
- Time boxed (short)
- Incomplete prototypes

Process – Evaluation
- What worked?
- What didn’t?
- What did the user like?
- What more does the user want?
- Are we done?

Iteration
How is it different?

- Prototypes not intended to be complete
- Emphasis on iteration speed
- Strikes a balance between users AND tools

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Some Benefits

- ↑ User involvement
- ↑ Accuracy
- ↑ Quality
- ↑ Problem identification
- ↓ Development time (70-40%)

Some Pitfalls

- ↓ Quality
- Complication
- Distraction
- Seduction
- Obscured historical perspective

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Closing

- RP is a technique for user centered design
- RP addresses users AND tools through an iterative approach
- RP has both benefits and risks

References:
Discussion

Analysis  Evaluate  Build