Why prototype?

“…the value of prototypes resides less in the models themselves than in the interactions they invite.”

Michael Schrage – Serious Play
Why prototype?

“…innovative prototypes generate innovative teams. The prototype plays a more influential role in creating a team than teams do in creating prototypes.”

Michael Schrage – Serious Play
What to Prototype?

“…Prototypes provide the means for examining design problems and evaluating solutions. Selecting the focus of a prototype is the art of identifying the most important open design questions.”

Houde and Hill – What do Prototypes Prototype?
What is the Prototype?

“…Prototypes are not self-explanatory…Clarifying what aspects of a prototype correspond to the eventual artifact—and what don’t—is a key part of successful prototyping.”

Houde and Hill – What do Prototypes Prototype?
Prototyping questions: framing

Who will you show your prototype to?
- homogeneity, scale (number of users)
- conflicting interests, special needs
- access & availability / time / commitment

What do you expect to learn from them?
- background: their knowledge, problems, dreams & wishes
- preferences: alternatives, features
- overall experience: likes and dislikes, mood, attitude

What role do you want them to play in the design?
- teach you about the use context
- learn from you about possibilities
- collaborate in developing design ideas / solutions
What can be a Prototype?

- Sketches
- Diagrams & Frameworks
- Hand Made Constructions
- Machined Constructions
- Virtual Models
- Graphics
- Packaging
- Spaces
- Role Play, Experiences
- Video
Prototyping in 3 stages of design

- **INSPIRE**: Rough prototypes
- **EVOLVE**: Rapid prototypes
- **VALIDATE**: Right prototypes

# of ideas vs. project time

- **Prototype driven specs**
- **Spec driven prototypes**

IDEO 09/28/05
## Prototyping Behaviors

<table>
<thead>
<tr>
<th>INSPIRE</th>
<th>EVOLVE</th>
<th>VALIDATE</th>
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<tr>
<td>Embrace Failure</td>
<td>Expect Changes</td>
<td>Manage Changes</td>
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<td>Build it Yourself</td>
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<td>Leverage your Design Community</td>
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<td>Leverage our Vendor Network</td>
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<tr>
<td>Prototype to specify</td>
<td>Prototype is partially specified</td>
<td>Prototype is specified</td>
</tr>
<tr>
<td>Low resolution model</td>
<td>Targeted model</td>
<td>Integrated model</td>
</tr>
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In this course we are basically doing phase I prototypes (Inspire), with hopefully a slight foray into phase II (Evolve)
Prototypes

• Look like…

• Work like…

• Experience like …..
Prototyping types (Houde and Hill)

role

implementation  look & feel
Meet Sandra. She’s fed up with her telecom service and in search of a new mobile and a better deal. She heads over to O2, not knowing much about them, but the store looks inviting. It’s her lunch break, so time is tight.

Jenny gives a ‘Demo to Die For’ with the actual model handset Sandra has chosen, showing off the latest iMode features. Sandra is particularly excited about being able to book cinema tickets directly. She’s an avid movie buff.

No photocopying. No checking with managers. None of the typical delays associated with the approval process. From here on, Sandra’s photo ID will confirm her identity on-screen.

Before she goes, Jenny packs the pouch, box, charger, dongle and manual into an O2 bag...

...and adds a refreshing bottle of O2 water to top off the experience. Sandra leaves, smiling and satisfied.
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Practical Suggestions (Houde and Hill)

• Define “prototype” broadly
• Build multiple prototypes
• Know your audience
• Know your prototype; prepare your audience
The Key Principle:

Know where you are, and act appropriately
Focus on levels of user experience

work organization
- new way to distribute and coordinate work
- drawings of structure, scenarios of interaction of tasks

work task
- explore a new task and how its context changes
- tools (placeholders) + scenarios & role plays of the process

procedure
- demonstrate process in normal + extreme work situations.
- storyboards, scenarios & role plays

tool
- illustrate working artifact + user experienced in use
- paper, card board, slides, models ... beta versions
Questions for your discussion

• What kind of prototype should we develop?
• Who will we show it to in what setting?
• What do we expect to learn?
• How will we evaluate that learning?