What? The BA Performs Prototyping?

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Agenda

• Overview of Prototyping Technique
• Prototyping Progression
• Paper vs. Digital Prototypes
• Conclusion
Seminar Goals

• Understand how prototyping can be used to:
  – identify, describe, and validate requirements.
  – facilitate communication, collaboration and build consensus.

• Reduce the number of missed requirements.
Overview of Prototyping

What is Prototyping?
Why Create Prototypes?
What is Prototyping?

• Definition
  – A partial or preliminary version of the system.

• Prototyping Categories
  – Functional Scope
    • Horizontal
    • Vertical
  – Usage throughout Systems Development Lifecycle (SDLC)
    • Throw-away
    • Evolutionary/Functional

BABOK 9.22.1, 2, Glossary page 230
Horizontal/Throw-away Example

Organisation and Individual Management

Set-up Organisation Role 1
Set-up Organisation Role 2
Set-up Individual
Set-up Individual Role 1
Set-up Individual Role 2
Set-up Individual Role 3
Prototyping and Business Analysis?

The Business Analysis Body of Knowledge (BABOK®) suggests the Prototyping technique in the following task-based Knowledge Areas:

– Elicitation

– Requirements Analysis
Why Create Prototypes?

- Early identification of requirement refinement
- User Interface (UI) blueprint, pre-cursor to the end design

Why should the Business Analyst (BA) create Prototypes? (vs. Developer)
- **Elicit** external interface requirements from a user centric perspective
- **Analyze** and document external interface requirements from a user centric perspective
- **Verify** and **validate** external interface requirements from a user centric perspective

Did I mention USER CENTRIC?
What is User-Centric?

- Focus in developing prototypes is on the user.

- Definition of User–Centric
  - A design philosophy and a process in which user needs, wants, and limitations of a product are given extensive attention at each stage of the design process.
    - Multi-stage problem solving process to foresee how users are likely to use a product.
    - May validate assumptions regarding user behavior with usability studies.
  - Seeks to optimize the product around how users can, want, or need to use the product, rather than forcing the users to change their behavior to accommodate the product.

- Access to users is critical.
Prototyping as a Risk Mitigation Technique

• What are the leading causes of risks to a project?

• What can the BA ask to prevent risks?

• What risks can you see the prototyping technique driving out of your projects?
When does the BA prototype?
Prototyping Progression
Prototyping Progression

• Understanding user needs via Personas
  – Describes real (exaggerated) target users
  – Provides clear picture of how the user will most likely interact
  – Paints a multi-dimensional image of the user to the design teams leading to effective design
Prototyping Progression (continued)

• Site Strategy
  – Competitive Analysis
    • What others in the industry doing?
  – Concept Model
    • Depicts concept relationships
    • Provide content clarity

– Content Inventory
  • List of all data for application
  • Most likely in a matrix format
Prototyping Progression (continued)

• **Site Maps** (aka Structural Model, Taxonomy, Hierarchy, Storyboarding, Navigation Model, Site Structure)
  
  – Provides an overall site view

  – Captures site structure
Prototyping Progression (continued)

- **Flow Charts** (aka, Flows, User Flows, Process Charts)
  - Defines a process
  - Goals are two fold
    - Business process
    - User experience
Prototyping Progression (continued)

• **Wire Frames** (aka Screen Flows, Schematics, Blueprints, Prototypes)
  – Represents content and structure
  – Communicates initial design ideas
  – Communicates relative priorities of content
Prototyping Progression (continued)

• **Screen Design** (aka screen composites, mock-ups, page design, visual design, graphic design, interface design, design concepts, pretty pictures)
  
  – What the site looks like
Paper vs. Digital Prototyping
Prototyping Considerations

• All types of prototypes may be:
  – Varying degrees of fidelity
  – Paper
  – Digital

• In all cases, the emphasis is:
  – Collaborative
  – User centric
## Benefits of Paper vs. Digital

<table>
<thead>
<tr>
<th>Paper</th>
<th>Digital</th>
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</thead>
<tbody>
<tr>
<td>Encourages Creativity</td>
<td>Better for organization and storage</td>
</tr>
<tr>
<td>Zero coding effort – No technical skills needed</td>
<td>Better for remote collaboration</td>
</tr>
<tr>
<td>Early design ideas and concepts inexpensively – Promotes rapid iterative development</td>
<td>Better after overall flows and functionality has been agreed upon</td>
</tr>
<tr>
<td>Never mistaken for working application</td>
<td>Can demonstrate technical feasibility</td>
</tr>
<tr>
<td>Provides for significant user feedback</td>
<td>May discover technology gaps</td>
</tr>
<tr>
<td>Maximum Feedback – Minimum Effort</td>
<td>Provides vehicle for designers to learn needs</td>
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Paper Prototyping – Is it useful?

Usefulness of Paper Prototyping Survey Results
Warning – Digital Prototype Too Early

“You love the system! ... You love the system!”

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<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Paper Prototype</th>
<th>Digital Prototype</th>
<th>Functional Digital Prototype</th>
</tr>
</thead>
<tbody>
<tr>
<td>Look</td>
<td>Low – Medium</td>
<td>Medium – High</td>
<td>Medium – High</td>
</tr>
<tr>
<td>Interaction</td>
<td>Low</td>
<td>Medium</td>
<td>High</td>
</tr>
<tr>
<td>Horizontal</td>
<td>Low – High</td>
<td>Low - High</td>
<td>Low - High</td>
</tr>
<tr>
<td>Vertical</td>
<td>Medium – High</td>
<td>Low - Medium</td>
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</tbody>
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Conclusion

• Decompose external interface requirements
• Prototyping = user centric requirements
• Consider Prototyping Workshop for hands-on experience
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