BUILDING PRODUCTS

with Agile Development

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"that version of a new product [or service] which allows a team to collect the maximum amount of validated learning about customers with the least effort"

-- Eric Reis
Five Misunderstandings about MVPS
#1: Viable ≠ Crappy
#2: Not a destination!
What do you measure & learn?

<table>
<thead>
<tr>
<th>MAPS #1 &gt; Concept</th>
<th>MAPS #2 &gt; P-M Eval</th>
<th>MAPS #3 &gt; P-M Fit</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAP #1 PPC Campaign Landing Page</td>
<td>MAP #2 Product Drawings Detailed Spec</td>
<td>MAP #3 Prototype Functional Output</td>
</tr>
<tr>
<td>Features / Benefits description ‘More info’ Call to Action</td>
<td>Face-to-face technology demo</td>
<td>Field Pilot</td>
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<tr>
<td>Market insight Find early adopters</td>
<td>Locate Strategic partners Seed Funding Paid-beta customers</td>
<td>Revenue Customer Validation Capital Investment</td>
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Customer Interaction
Learning Objective
Investment
#3: Validates or invalidates key hypothesis
#4: Doesn’t have to be a product at all
#5: Not always a landing page
What do you build?

- Storyboards
- Landing Pages
- Demo Videos
- Wizard of Oz
  (examples)
A panel or series of panels of rough sketches outlining the sequence of events a consumer will experience before, during and after using our product / service.
It’s a mirror

Encourages customers to be more honest

YOU won’t fall in Love
It’s a Mirror

Telling the customer’s story from their context
- how they will use the product / service
Storyboards

3 Benefits

Encourages Customer Honesty

Easier to react honestly to rough sketches than final pixel perfect images
YOU will NOT Fall in Love

Never seen anyone fall in love with their storyboard
Storyboards
Sample

http://www.slideshare.net/IntuitInc/conserve-code-storyboard-experiences-with-customers-first?next_slideshow=1
Storyboards Sample

Wrong Problem

Wrong Benefit

http://www.slideshare.net/IntuitInc/conserve-code-storyboard-experiences-with-customers-first?next_slideshow=1
Storyboards

Sample

Problem

- AI just faxed this—
  is it what I need?
  Where is the
  original request?
  In Email?
  In these files?

- This is not what I needed. Now
  I have to type up another email
  (for the 23rd time).

- What else does AI owe me? Oh,
  it takes forever to figure this out.

- All my requests and his responses
  are scattered between files
  and emails.

Solution

- It's so easy to keep track of what
  AI sent me because it's attached
  to the checklist.

- Let me review the receipt attached. It's
  just what I needed, I'll mark it complete.

- I also need the receipt from AI for this
  transaction. Let me add a note and
  re-publish this item to the checklist.

- Having all my requests and
  responses managed in one place
  saves me up to 2 hours of
  typing and hunting through files.

Benefit

http://www.slideshare.net/IntuitInc/conserve-code-storyboard-experiences-with-customers-first?next_slideshow=1
Landing Pages
High Performing

User Centric
Clear & Concise
Conversion Focused
Shareable
Measurable
Consistent
Demo Video

https://www.youtube.com/watch?v=7QmCUDHpNzE
Wizard of Oz

1. Submit

2. Email to you / your team

3. “Automated” response
How do you build?

AGILE Development
What do we mean by agile?

We value …

*Individuals & Interactions* over *process and tools*

*Working products* over *documentation*

*Customer collaboration* over *negotiation*

*Responding to change* over *following a plan*
Why agile development?

You’re wrong more than you are right

Key Metric: How fast can you iterate?

Need to Predict Delivery Times
How to do agile development?

This will be unique for each of you based on your team, type of solution being developed and personal preferences.

Could be: XP, Feature Driven Development, Crystal, Kanban or any other process your engineering team is comfortable with.

(often pull aspects from each)
Why do we focus on scrum?

Firsthand observed it transform & improve my last software company - mSpoke

Being used at some of the largest technology companies in the world today (Google, Yahoo!, Adobe, etc ...)

Provides a great framework for entire team to understand what is going on.

Disclaimer: Still hard to build innovative products & services and not a silver bullet
Why do we focus on **scrum**?
Key Themes from Scrum
The process of Scrum?

Tips / Tricks for scrum?

Important for everyone to buy in and get familiar with vocabulary

Tools for implementing scrum (not necessary):


Google Doc Template - [https://docs.google.com/previewtemplate?id=0AoBzAQ22ynH5dEpRRkNBVGRCVU1HMmk2enBMYUZZSGc&mode=public](https://docs.google.com/previewtemplate?id=0AoBzAQ22ynH5dEpRRkNBVGRCVU1HMmk2enBMYUZZSGc&mode=public)

Product Backlog

Prioritized list or queue of requirements

Rough Estimates of level of effort to complete (not all estimates need to be equally thorough / higher priority can be more thorough)

Ultimately Product Owner sets the priority

Any one (customer, employee, board member, advisor) can add to product backlog

Should be shared with the full-team
# Product Wish List

<table>
<thead>
<tr>
<th>ID</th>
<th>Category</th>
<th>Total - Sprint 5</th>
<th>Effort Estimates</th>
<th>Planner</th>
<th>Difficult or Uncertain Issues</th>
<th>Abstract Requirement</th>
<th>Summary of Spec</th>
<th>Notes / Test</th>
</tr>
</thead>
</table>
| 73  | Tech     | 1.25             | 0.5d - Identify common patterns (Brian and Evan)  
0.75d - Factor out patterns | Evan           | Improve front-end server architecture | Improve front-end server architecture | Factor out common resource patterns                                           |              |
| 74  | Tech     | 2                | 1d research JUnit automated testing features  
1d automated test infrastructure development | Brian          | Improve Javascript unit testing | Improve Javascript unit testing |                                                                              |              |
| 96  | Tech     | 3                | 0.5d set up persistent Quartz environment  
1.0d configure Quartz  
0.5d other odds and ends  
1.0d test and rework | Dean            | Organize the software for automatic operation on multiple nodes; e.g. automatic input feed processing, personalized feed processing. Integration testing and debugging of the software running as a whole. | Organize the software for automatic operation on multiple nodes; e.g. automatic input feed processing, personalized feed processing. Integration testing and debugging of the software running as a whole. |              |
| 85  | Tech     | 2                | 1d - Rails Learning  
.5d - Testing  
.5d - First Migration | Brian          | Database Migration Infrastructure | Database Migration Infrastructure |                                                                              |              |
| 107 | Tech     | 1                | 1d - investigation | Evan       | Explore Tomcat redeployment issues | Explore Tomcat redeployment issues |                                                                              |              |
| 81  | IC       | 5                | 0.5d - Atom generation library research  
0.5d - Programmatic URL creation research  
1d - Implementation of Atom generation  
3d - manual testing | Evan           | The personalized feed URL should deliver feed content when pulled. | The personalized feed URL should deliver feed content when pulled. | Generate an atom feed on each request containing all Personalized feed items that were created in the last 72 hours. (This line item includes basic styling.) | Sample of manual test |
| 12  | II       | 5.5              | .5d test image maps in FRs and browsers  
2d badge generator API and algorithm design.  
2.5d development  
.5d manual test | Brian          | - logic and code to lay out and render the badge  
- Test to make sure image map at text works as planned in multiple feed-readers. | - logic and code to lay out and render the badge  
- Test to make sure image map at text works as planned in multiple feed-readers. | When an item is delivered in a personalized feed, it includes a visual representation of how relevant the system believes it is and possibly why. | Sample of manual test |
| 75  | II       | 4                | 2d design & HTML layout  
1.5d development  
0.5d manual test | Brian          | - Test to make sure image map at text works as planned in multiple browsers. | - Test to make sure image map at text works as planned in multiple browsers. | The user is able to provide “thorough” feedback on the preferences that drove the selection of a particular content item. | Sample of manual test |
| 36  | R        | 8                | 1d remaining tweaks from last round with Jamie  
1d first pass at improving scalability  
1d first pass at testing scalability  
1d finish scalability | Dean           | Memes can leverage topics | Memes can leverage topics | a subject such as “hurricane Katrina” or “the surge in Iraq” that lasts from a few days to a few months, and that is too ephemeral to reliably get an appealing human-readable name |              |

*Note: The table continues with more rows.*
# Product Backlog

## Product Wish List

<table>
<thead>
<tr>
<th>Category</th>
<th>Priority</th>
<th>Estimate</th>
<th>Effort</th>
<th>Notes</th>
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## Action Item List

- Item 1
- Item 2
- Item 3
- Item 4
- Item 5

## Timeline

- Week 1
- Week 2
- Week 3
- Week 4

## Stakeholder Input

- User A
- User B
- User C

## Requirements

- Requirement 1
- Requirement 2
- Requirement 3
# Product Wish List

<table>
<thead>
<tr>
<th>Category</th>
<th>Tech</th>
<th>Test</th>
<th>QA</th>
<th>Dev</th>
<th>(Other)</th>
<th>(Other)</th>
<th>Notes</th>
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**Product Description:**
- [Product Feature 1]
- [Product Feature 2]
- [Product Feature 3]

**Notes:**
- [Note 1]
- [Note 2]
- [Note 3]
Everyone on team should easily be able to see the backlog

I’ve found one “administrator” helpful logistically

If not using a full scrum tool, you can do this easily in a shared spreadsheet (eg Google Docs)
Each sprint:

- Lasts a defined number of days (time box)
- Has a specific set of requirements from backlog allocated to it (defined during “sprint planning meeting”)
- Has specific goals for the team to achieve (set up front) - “sprint goal”
Estimates

All estimates are **forward looking**

How much will it take to complete this feature / requirement?

Increasing an estimate based on learned complexity is accepted by the team

Sprint backlog estimates should be updated regularly
The average decrease in estimates for the total effort / time remaining is a sprint’s velocity.

Overtime velocity becomes very helpful for planning purposes.

The chart showing daily total of time remaining is called a burn down chart or sprint’s signature.
### Sprint Backlog

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<tbody>
<tr>
<td>Jim</td>
<td>Create QA environment in data center</td>
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<td>8</td>
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<td></td>
<td>Port JSP templates to Velocity</td>
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<td><strong>Improvements to thumbs-up and thumbs-down landing pages</strong></td>
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<td>Place 'powered by mSpoke' image on Left side nav bar</td>
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<td>Move page header above cred space on items membes page</td>
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<td>Change &quot;thanks for letting us know&quot; on thumbs-up</td>
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<td>Make &quot;Powered by Technorati&quot; image smaller</td>
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<td>Move &quot;Powered by Technorati&quot; icon underneath results on thumbs-up page</td>
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<td>Add box around Technorati results on thumbs-up page</td>
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<td><strong>Improve Thumbs Up / Down Interaction</strong></td>
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<td>John</td>
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<td>Fix / Improve</td>
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<td>#1896 should prioritize initial processing of new input feeds over re-processing of old ones</td>
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<td>#1908 - need user administration page for deleting a user and/or personalized feed</td>
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<td>#1977 Meme's Icon and Label below mouse pointer should resize accordingly on drag</td>
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<td>#2003 Meme display doesn't animate in NetNewsWire</td>
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<td>Better error handling implementation in the client across the board</td>
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<td>Centralized UI for error handling</td>
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<td>Develop useful messages for current errors thrown</td>
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<td>Better architecture for error handling between client and server in general</td>
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<td>Better passing of error context from server to client</td>
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<td>Strip out malicious HTML / JavaScript @ Our WWW Display (HTML)</td>
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<td>500 user load test</td>
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<td>#2032 Need to implement Status Edit link as spec'd</td>
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Velocity / Burn Down
Velocity / Burn Down
Sprint Review

At the end of the sprint, the team demonstrates what they have built.

Compares against the sprint’s goals.

Retrospective to look for improvements at the end of the sprint.
Thank you

Twitter: @SeanAmmirati

My 2x monthly newsletter
 seanammirati.com/email/