Integrating Usability in Agile Development Process

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Disclaimer and Acknowledgements

● This presentation reflects only my personal views and thoughts on how to integrate usability in an Agile development process.

● Agile is and will be one of the main challenges for us as usability professionals in the upcoming years – simply, the market demands the quick and efficient delivery of products and releases that Agile supports.

● It is our responsibility and mission as usability professionals to ensure we represent the users and help our organizations deliver useful, usable and accessible products to the target users.

● Acknowledgements
  ● Many thanks to Faisal, Henry, Louisa, Joey, Yuliyana and others who gave me feedback and took the time to discuss ideas about how to make usability essential part of an agile development process.
Introduction

- Agile is becoming the dominant choice for delivering product to the users

- Agile – 18,900,000 hits; Usability – 16,300,000

- Significant changes in the processes and stakeholders mindset require new approach of integrating usability methodology

- Time to market, quick delivery of new products and releases – all these are benefits, but also challenges for us as usability professionals
Usability professionals have had great success integrating efficient usability process in the traditional “Waterfall” development process.

It presents its own set of challenges for us: To name a few of the critical ones:
- Multi-stage process with many stakeholders
- Limited opportunity for changes once development has started
- Success depends on clear commitment for reaching usability objectives
- Measuring the impact

User Centered Design Processes and Methodology have become an essential part of the traditional development process.
User Centered Design

Alignment with the business objectives of the organization to ensure delivering highly usable products to the target users – by placing the user in the center of the design and development process.

**What are the top tasks?**
- Importance
- Frequency
- Satisfaction
- Level of difficulties

**What are the top scenarios we must support?**
- Importance
- Steps
- Tools
- Pain points

**Who are our target users?**
- Personas
- Background
- Responsibilities
- Objectives
- Experience

**Who are our competitors?**
- Strengths and weaknesses
- Opportunity to beat

**How successful are we in developing usable products?**
- Validation of the design
- Ongoing collaboration with target users to improve usability

**What design best suites the target users?**
- Iterative design
- Issues and resolution of usability defects
Typical UCD Alignment with the Traditional Development Process

UCD Activities

- Research and surveys
- Usability Planning
- Expert CE Analysis
- User Needs Assessment
- User Scenarios
- Group task/requirements analysis
- Concept Validation

- Concept Market Studies
- Scenario Development
- Lo-Fidelity Prototyping
- Iterative Testing
- Comparative Design Validation
- User interviews

- User Needs Analysis
- Focus Groups
- Persona Development
- Scenario Development
- Lo & Hi Fidelity Prototyping
- Comparative Design Validation

- Prototyping
- Iterative Usability Testing
- Card Sorting
- Heuristic Evaluation
- Design / Prototype
- Iterative Testing
- Terminology Validation
- User Style Guide

- Customer Surveys
- VOC Surveys
- Contextual Inquiry
- Post Release Evaluation
- Beta surveys
What about Agile?

As illustrated by the Agile Manifesto and Principles (www.agilemanifesto.org), Agile is a Philosophy, rather than a formulated design and development process:

<table>
<thead>
<tr>
<th>More important</th>
<th>Less Important</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individuals and interactions</td>
<td>Processes and tools</td>
</tr>
<tr>
<td>Working software</td>
<td>Comprehensive documentation</td>
</tr>
<tr>
<td>Customer collaboration</td>
<td>Contract negotiation</td>
</tr>
<tr>
<td>Responding to change</td>
<td>Following a plan</td>
</tr>
</tbody>
</table>
The Agile Challenge for Usability

● The good news
  ● Organizations with mature understanding and integrated UCD process will seek similar integration with the usability teams

● The bad news (i.e. the “challenge”):
  ● The manifesto – and the 12 principles do not mention:
    ● Usability / accessibility
    ● User in the context of user centered design process
  ● It does not offer insights about how to shift the traditional UCD to agile
But there is more “good” news:

- The iterative philosophy of Agile is in line with the iterative, user feedback oriented approach that is the fundamental philosophy of the traditional usability process.

- Quick search for images for Agile process diagram and Agile process produced thousands of diagram, and the vast majority were similar in the prominent use of a circle to signify the iterative nature of Agile with the scrums, sprints, etc.
Google Image Search for “Agile Process”
And Image Search for “User Centered Design Process”
“Simplified Agile” + Usability

Determine scope, features, time and budget

Prioritize and finalize the plan

Iterative Sprints (Typically 2-4 weeks)
- Planning
- Demos
- Incremental integration/change of features
- Daily Scrums

Validation of UX Objectives

Market/Customer

Profiles
- Personas
- Task Analysis
- Scenarios
- UX Objectives

Prioritization
- Task flow
- Information Architecture
- High Level Designs

Usability Issues and Recommendations from User Sessions

Is product ready for market?
How to Improve the Chance to Succeed?

- Engage early with the product owners, negotiate a “Cycle 0” for the project to perform the initial user research and provide input for establishing the requirements and determining the feature set:
  - UX Researcher needs to work a step ahead
  - UX Designer needs to work arm to arm with the rest of the development team
  - Challenge: Not all organizations have 2 separate UXR and UXD resources
  - Response: The UX generalist will need to “wear two hats”

- Negotiate a protocol and process for the UX work on the project, e.g.:
  - Achieve agreement on concrete development resources per sprint for the usability findings
  - Establish concrete user experience targets for the “ready for market” product
  - Create and lead UI sub-teams that can brainstorm for changes and features that can address the usability issues identified between sprints
  - Set up process to document and prioritize usability issues to make sure the unaddressed (in the sprint) problems can be addressed later
  - Demonstrate the benefit of integrating the usability activities in the Agile process by measuring the impact

- Continue to be the voice of the user in the process, ensure the team understands the impact of improving the usability for the success of the product
Future Challenges

- How to measure the efficiency of our work in Agile
- Where and how to document the deliverables so the Agile team can use them
- Do we need to change the interaction model with the project stakeholders
- Etc.
While a significant change from traditional development model, Agile does not eliminate the need of usability focused process.

More dynamic, with focus on quick response to market needs, addressing the identified issues in a timely and responsive manner, Agile requires the usability teams to revisit their planning and methodology practice.

The Agile philosophy requires even more attention to ensuring early involvement and flexibility combined with ability to look ahead at any cycle of the process.

The Agile iterative nature (in spite of the very quick cycles) does provide a great basis for integrating usability iterations and helping the organizations deliver usable, accessible and successful products to the market place.