Leveraging User Story Techniques to Quick-start an Agile Project
• **Brief Introduction**
• **Presentation Objective**
• **User Story Mapping**
  – Overview
  – Benefits
  – Roles / User Activities / Epics
  – Tasks / User Stories
  – Organizing the User Story Map
  – Prioritize & Test
  – Release Planning
• **Business Case Study # 1**
  – Inventory Management Application for a Federal Government Entity
• **Business Case Study # 2**
  – Dodd Frank Title VII Solution for a Commercial Financial Institution
• **Wrap Up**
• SENIOR AGILE CONSULTANT, Eliassen Group

• Passionate agile practitioner with a proven track record leveraging agile practices to consistently deliver exceptional results on behalf of Fortune 500 clients, start-ups and Federal Government entities.

• Credentials:
  Accredited Kanban Practitioner
  Certified Scrum Professional (pending)
  Certified Scrum Master
  PMIWDC Member
  MBA, University of Miami, Fl.

• Industry expertise: Financial Services, Internet, New Media, Cable & Telecommunications, Federal Government

• Agile Community: AgileDC 2013 Organizing Board Member, a role held for the last three years.
Introduce the overall concepts regarding, and constructs supporting, User Story Mapping, and provide recommendations for leveraging these techniques based on real-world application from both federal government and commercial experiences.
Overview of User Story Mapping
User Story Mapping Overview

• User Story Mapping is a set of techniques to organize and prioritize User Stories.
“I've been using a practice I [now] call story mapping. I first wrote about this approach in the article "How You Slice It." The article was published in January 2005 - but by the time it was written, I'd been using the practice for a couple years.”
– Jeff Patton
User Stories are laid out in a 2 dimensional map

**Horizontal Axis**: High level overview of the system being developed

**Vertical Axis**: Detailed User Stories organized into releases of the system’s functionality
Benefits of User Story Mapping

- Takes you beyond the stories
  - Makes the workflow visible
  - Visualize the relationship between Epics (large stories) and their sub-stories
  - Provides a structure for prioritization and identifying releases of valuable slices of functionality
Benefits of User Story Mapping

• Helps to address the concern…

“Have we captured everything?”
“Given a fully assembled map, I have something I can hang on a wall, or lay out on a tabletop and actually have a discussion with. I can walk the map from beginning to end with a user, stakeholder, or developer and tell a story about the users of the system and what they're doing. I can skim along the top of the map, and just touch on the high points. I can dig down into the map to discuss the details.”

– Jeff Patton
Roles / User Activities / Epics
• Start with understanding the user’s experience
  – Identify the users of the system
  – Develop personas for each user
  – Identify goals that the user wants to accomplish
  – The goals are good candidates for the Epics (User Activities)
“What do people do with this system?”

- Then answer this question, by defining the activities the user needs to perform to achieve his/her goals
  - An Activity is:
    - A substantial undertaking that a user performs
    - Is composed of many steps or tasks
    - Does not always have a precise workflow
    - Is defined for each user (“Role”) of the system
• In the context of Agile, these User Activities are considered “EPICS”
• The User Activities (“EPICS”) are laid out in sequential order left to right at the top of the Story Map
For each User Activity ("EPIC"), identify the collection of **TASKS**
- A User Task is what users do to accomplish each Activity.
- A User Task can then be written as **User Stories**.

#SS01 — Story Title [Name of the Story]

As a ... [Role / Type of User]

I need ... [Feature / Capability]

So that ... [Reason / Benefit]
Organizing the User Story Map
Organizing the User Story Map

- Arrange the EPICS from left to right in the order as you would explain it to someone
- Across the top you can “read” the big story of the system
• Organize your User Stories beneath the EPICS in workflow order from left to right. (User “does this **and then** does that”)
• If there are places where the order isn’t obvious or mandated, use the order in which you describe the process.
• When telling the story, “**and**” statements are the points at which you will place them horizontally
Organizing the User Story Map

- Stack User Stories vertically when the user may do one of several tasks at nearly the same time ("User does this **OR** that")
- When telling the story, "**OR**" statements are the points at which you will stack them vertically
Organizing the User Story Map

- Stack User Stories vertically when the user may do one of several tasks at nearly the same time (“User does this OR that”)
- When telling the story, “OR” statements are the points at which you will stack them vertically

User Stories are children of the Epic above them.
Organizing the User Story Map

• **Make Room!**
  – User Story Maps can take up a lot of space
  – Some maps can take up all the wall space in a room
Prioritize and Test
Prioritize and Test

- Add a Vertical Axis to the User Story Map
- The Vertical Axis represents “Necessity”

For a user to successfully engage in this Epic (activity), is it necessary they perform this User Story (task)?
• Adjust Stories up or down vertically to indicate how necessary they are to the EPIC
Prioritize and Test

• Test out your User Story Map
  – Choose an Epic to start with
  – Choose a persona to help tell the story
Release Planning
Our very first release should be the “**Walking Skeleton**” of our system

Alistair Cockburn developed this pattern in the late 90s and defines the **Walking Skeleton** as:

- A tiny implementation of the system that performs a small end-to-end function.

For more information:
http://alistair.cockburn.us/Walking+skeleton
Where is the Walking Skeleton in a User Story Map?

Hint: He’s right there isn’t the correct answer.
• The **Walking Skeleton** is the software that supports the least number of needed tasks across the span of user activities.

The walking skeleton will be those items across the top row with some items perhaps in the second row.
• Slice up your map to define Releases
  – Choose groups of features that span activities to create coherent pieces of business functionality
• User Story Maps help you visualize the priorities

All the items at the top are essential, we don’t need to prioritize them.

User Story priority moves Left to Right and Top to Bottom
Let’s Review

• Start with understanding the user’s experience
• Build a User Scenario
  – Tells a story about a persona with a goal
  – Describe how the persona reaches the goal
  – Capture the important facts
  – Include interesting details to help people understand and visualize the important aspects of the system
Let’s Review

• Read through, and review, the User Scenarios to identify and capture User Stories.
• Capture the user stories on index cards and add to the User Story Map
• Arrange the User Stories under their associated Epics
Business Case Study # 1
Inventory Management Application
Federal Government Entity
User Story Mapping: Federal Government

- Inventory Management Application Background
  - Customers would call a Federal Government Order Manager with their inventory requirements
  - Federal Government Order Manager would enter requirements into a database, and prioritize the order for shipment from distribution warehouses located across the country
  - Inventory could be ordered and shipped in tractor trailer quantities only
  - Customers would utilize and return the merchandise to the Federal Government distribution warehouses, either in truck load quantity or piece-mail
  - Merchandise would then be re-purposed for the next order
**Primary Challenges**

- High risk of customer orders being unfulfilled during peaks in their business cycle
  - Limited transparency with regard to inventory levels at distribution points
  - Merchandise hoarding by Customers

**Initial Project Scope**

- Develop an online order entry interface, and reporting capability, for an inventory management application that provided products to Customers on-demand
• Initial Agile Coach Assessment
  – Robust set of gold-plated requirements and associated artifacts… that was it!!!!
  – Relationship between IT and Business Customer was adversarial
  – Solution depended on different Technology Platforms that did not naturally integrate
  – Per the COO, Release 1 “will be deployed in 4 months time or else…”
• **Vision Statement:**
  
  - The application will provide Customers and Employees with an intuitive, informative and efficient online service for requesting and tracking inventory. Automating this service will optimize the flow of product through the distribution pipeline and minimize leakage, thereby helping a critical internal constituency be successful.
Define Roles / Value Drivers

1. Customer / End-User
   1. Intuitive and Efficient On-line Order Entry & Order Management
   2. Order Transparency

2. Federal Government Order Manager
   • Clear understanding of customer orders for which they are responsible
   • Reporting on-demand

3. Administrative User
   • Read-Only Access
   • Reporting on-demand
User Story Mapping: Federal Government

Login to User Application

Register for Business Account 2.1
OR Get Instructions for Requesting Access 2.2
OR Login Business Gateway 2.3

Creates User Roles 2.4
Accept Terms and Conditions 2.5
Authorize User 2.6
User Story Mapping: Federal Government

1. Login to User Application
   - Register for Business Account 2.1
   - Get Instructions for Requesting Access 2.2
   - Login Business Gateway 2.3
2. Create User Roles 2.4
3. Accept Terms and Conditions 2.5
4. Authorize User 2.6
5. View Dashboard 3.1
User Story Mapping: Federal Government

Withdraw Order
(Cannot be done after approved by Order Approvers)

View Orders that haven't been approved
4.1

Withdraw Order Request
4.2

Confirm Withdrawal Details
4.3

Receive Withdrawal Acknowledgement
4.4

Create Next Order
4.5

Redirect to Home Page
4.6

Logout
4.7
User Story Mapping: Federal Government

Point of Entry

R1.0 Critical Activities

Point of Exit
User Story Mapping: Federal Government

R1.0 Critical Activities

Point of Entry

Point of Exit
User Story Mapping: Federal Government

- **Release Backlog**
  - 4 Epics
  - 38 User Stories
  - 77 Acceptance Criteria

- **Roadmap**
  - 6 consecutive 2 week sprints

- **Project Outcome**
  - Deployed to production 4 months after starting the project
  - Delivered +85% of desired functionality
  - System Processed ~$15 million in new orders without error within the first 2 weeks of deployment
  - Customer became steadfast evangelist of Agile internally
  - Relationship between Business and IT was exceptional
Business Case Study # 2
Dodd Frank Title VII Solution
Commercial Financial Institution
• Dodd-Frank Title VII Background
  “On July 21, 2010, the Dodd-Frank Wall Street Reform and Consumer Protection Act (the “Dodd-Frank Act”) was signed into law by U.S. President Barack Obama. The law touches on nearly every facet of the financial sector. Title VII of the Dodd-Frank Act, entitled the Wall Street Transparency and Accountability Act of 2010, establishes a new framework for regulatory and supervisory oversight of the over-the-counter (“OTC”) derivatives market, which is estimated at more than $600 trillion.”

Source: “Dodd-Frank Act: Regulation of Over-the-Counter Derivatives(Title VII)”, Regulatory Practice Letter RPL Number 10-13, KPMG
• **Primary Challenges**
  – Government Regulations Incomplete / Subject to Change
  – Multiple Invested Stakeholders / SMEs
  – Two (2) Third-Party Vendors embedded in the proposed solution (not Agile), 1 sun-setting, 1 emerging
  – Solution must be Audit proof

• **Initial Project Scope**
  – Compliance Requirements fully-defined
  – Business Requirements 80% defined
  – Functional Requirements not yet defined
  – System Requirements not yet defined
• Initial Agile Coach Assessment
  – Constraints – “Iron Triangle”

  – Business and IT had an adversarial relationship top-down, and across the organizational matrix

  – No Actionable Requirements existed for the Technology Organization
• Vision Statement:
  – Provide an audit-proof technical reporting solution which would insure that the Financial Institution’s Derivatives Practice was Dodd-Frank compliant by the mandated deadline.
User Story Mapping: Commercial Institution

Define Roles

1. Back Office Manager
2. Front Office Manager
3. Middle Office Manager
4. Treasury Account Manager
5. Capital Markets Trader
6. Capital Markets Operations Manager
7. Derivatives Manager
8. Collateral Manager
9. Accounting Manager
10. Financial End User
“Life of a SWAP”

- Trade Execution
- Clear Trade
- Report to SDR
- Collateral Management
- Record Keeping (Retention and Retrievability)
User Story Mapping: Commercial Institution

**TIME >>>**

- Trade Execution
- Clear Trade
- Report to SDR
- Collateral Management
- Record Keeping (Retention and Retrievability)

**NECESSITY**

- Requesting For DTCC LEIs
- Register w/ DTCC (onboard)
- Report SWAP Continuation Data
- Historical Reporting
- Confirmation Data
- Enrichment of Trade Data in SOR
- Valuation Reporting (Quarterly)
- Document Message *.csv file, maps doc to trade
User Story Mapping: Commercial Institution

• **Release Backlog**
  - 6 Epics
  - 60 User Stories
  - 97 Technical Acceptance Criteria

• **Roadmap**
  - 7 consecutive 2 week sprints

• **Project Status**
  - Business Customer likes Agile so much, began using KANBAN to manager operational tasks
  - Relationship between Business and IT improving
    - Strategic partnership
    - Shared ownership and accountability in the project outcome
Wrap-up and Final Questions
User Story Mapping: Success Predictors

• **Agile Best Practices**
  – Understand User Story Mapping Fundamentals
  – Preliminary Vision Statement
  – Create Roles / Personas

• **Product Owner**
  – Subject Matter Expect (SME)
  – Dedicated availability up-front

• **Scrum Master**
  – Seasoned
  – Business Savvy
  – Inquisitive, comfortable asking leading questions

• **Communication Strategy**
  – User Story Map as Information Radiator in Scrum Room
  – Sprint 0 Demo / Conduct Brown Bags for Stakeholders
References


