

Software Engineering Conference in Russia



Hotwire.com Waterfall to Agile

Roman Kaplun Denis Rogov

November 1st, 2012

Recap of the summer of 2011



Upside	Downside
 Business was improving Gaining momentum on recruiting Groups work really well together – supportive Great skill sets & hotwire product & travel/internet industry knowledge Everyone cares deeply about the business & its success 	 Business environment = uncertain Not working on the right things People were less engaged Retention was difficult Slow Lack of Impact Heavy Process - Project Based Risk Averse Lack of Innovation or Experimentation Teams Disengaged

Global Sourcing Initiative



- In 2006 Luxoft was selected as SWE outsourcing vendor
- By 2008 executed on project-based Waterfall model
- In August 2011 Hotwire ODC with Luxoft was about 50 people, closely resembling local SF set up
 - New Projects Software Development
 - Release routine (automated and manual regression, performance testing, build preparations)
 - Quality Management
 - Architecture
- Have grown to 60+ people to date



Goal for 2012



Dramatically improve the quality and quantity of the product we deliver to our customers

2011 – Forward Hotwire SDLC Process



AGILE

- This was our first, significant effort to **fundamentally** change Product Development Process in 10 years
 - Focus on business value
 - Shorter delivery cycles
 - Accelerate ROI
 - Improved visibility into product and progress
 - Reduce cost of project
 - Faster test new ideas
 - Continuous evaluation of the project
 - Reduce project risk

Road to Agile



- 2008 jointly with Luxoft team, experimented with iterative development process (within the Waterfall framework), mostly successfully
- 2009/2010 locally, in SF, experimented on two large projects with Agile. Produced mixed results.
- **2010** assigned first, interactive (agile like) front end project to Luxoft team. Produced positive results in terms of time to market, quality, customer value.
- 2011 established first Product Line, entirely outside of SF office HW Product in Geneva, Software Development in Kiev. Proved to be successful.
- Learned from other successful teams within Luxoft who ran Agile in the distributed teams set up.
- Fall 2011 Initiated company wide transition to Agile

Facts we knew about Transition



- Would not be Easy
- Required investment in training
- Required mind shift
- Expected Initial drop in Productivity
- Could create confusion
- We acknowledged not everyone would adopt and survive the change

Our Approach.



- We took this transition extremely seriously
 - The direction to change came from the TOP
 - Company President had done a number of sessions with teams in SF and Kiev
 - Significant Infrastructure and \$\$ Investment was being made
 - Initial sacrifice to Productivity and Profit Margin was expected
 - Significant amount of \$\$ was being spent on Consulting Services.
 - The best experts in the industry (Marty Cagan, Jeff Patton) was hired to conduct seminars for SF Teams
- The change was designed to take place for the entire company, including Engineering, Product, IT, Finance, Marketing, HR....
 - Hired a Consulting Firm <u>BigVisible Solutions</u>
 - Specialize in helping companies to move from Waterfall to Agile
 - Embedded Coaches in SF for up to 1 year
 - Luxoft assigned coaches traveled to SF to observe training provided by BigVisible
 - Worked with each team one-by-one
 - Luxoft assigned coaches to play similar training role in Kiev





The Customer

New (to Hotwire) Processes – Focus on a Customer

Engage With Our Customers

Customer Discovery

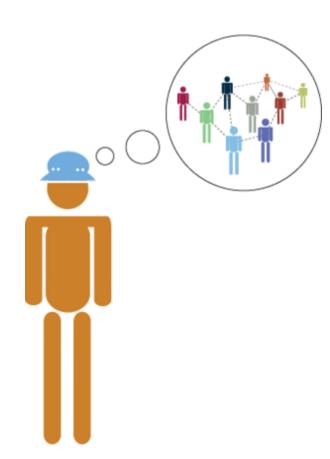
Discover a market of customers with a problem they need solved

Product Discovery

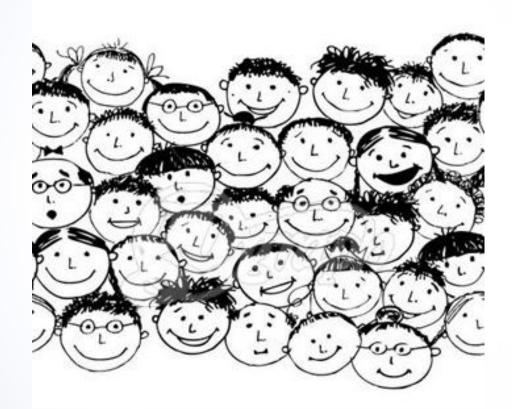
- Discover the minimum viable product that solves the customer's problem
- Identify a solution that is valuable, usable, and feasible
- As fast as possible
- As small as possible (minimum viable product)
- With evidence it will succeed

Successes: Discovery

- Discovery
- Established Listening Labs Launched November 18, 2011; labs every Friday
 - Now has over 6,000 participants!
- UserTesting.com
 - Completed 5 number of tests from Jan 2012
- Field Tests
 - Starbucks (Billing)
 - Westfield Mall (Hotel Consumer)
 - SFO Airport (Air)
- Voice of the Agent Program
 - Ability for agents to enter & vote on ideas regarding feedback for products, site, tools
 - Full launch to 500+ agents in May 2012
 - 332 ideas submitted to date w/some already implemented!







People

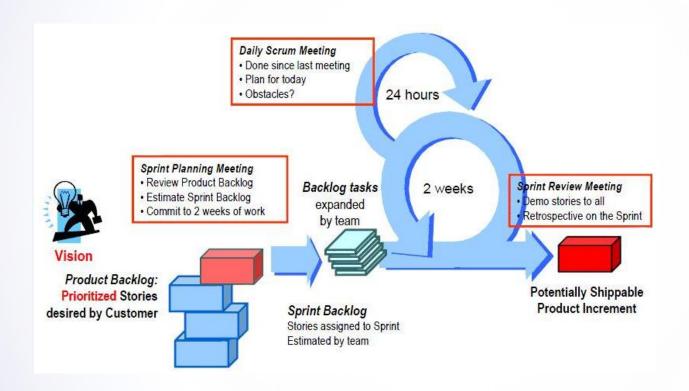
Recent Successes



Established Continuous Training

- BigVisible coaches on site & extended to end of year
- Luxoft Coaches in Kiev
- Jeff Patton sessions in SF
- Established Community of Practice: Engineering, Product, Scrum Masters
- Established Transformation Team to address cultural change issues weekly
 - How to make our culture less risk averse
 - Why we have a permission based culture
 - How we as a company can get in the way of the teams
 - Why some teams struggle and others succeed



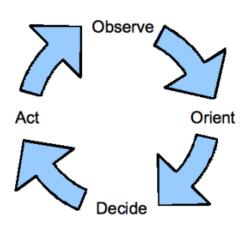


Process

Process



- 1. Build smaller chunks of functionality incrementally (MVP)
- 2. Test Early, Test Often
- 3. Entrance/Exit/Phase Acceptance Criteria and Code Branching
- 4. OODA Loops/Scientific Approach to Testing



Paradigm Shift



New Product management approach

- Focus on <u>experimentation</u> note hypotheses
- Validate idea at low cost before committing
 - Learn how much investment it's worth
 - If zero… You've "failed fast"
 - "Pixel-perfect" wastes time and resources
 - "Don't fall in love" be prepared to pivot
- Learning has business value
- Experimentation = freedom to be bold







Remote teams

Remote teams transformation



Challenges:

- 10 hours time difference
- Process synchronization between the teams
- Working on one large, single application

Addressed by:

- Introduction of new roles such as Proxy Product Owner and Scrum Masters
- Luxoft Agile Practice coaches involvement
- Tight cooperation on coaches level
- Common Communities of Practice