#### Pattern of Innovation

Riak Usage at BestBuy.com

# 10 Second Background Check

Joel Crabb, Chief Architect, BestBuy.com What I do:

- Build scalable business platforms
- Build developer-focused work environments
- Innovate (hopefully)



## Agenda

Define Innovation

Innovation is a Pattern

The Pattern at BestBuy.com

How Riak supported the Pattern

# "Lives are about imagination and what we can create."

~ Ed Freeman

Lecture on Corporate Social Responsibility

6/2011



### Innovation Defined

The products and/or technologies that change their industry or create new industries.

## What is Innovative?

Ideas are innovative

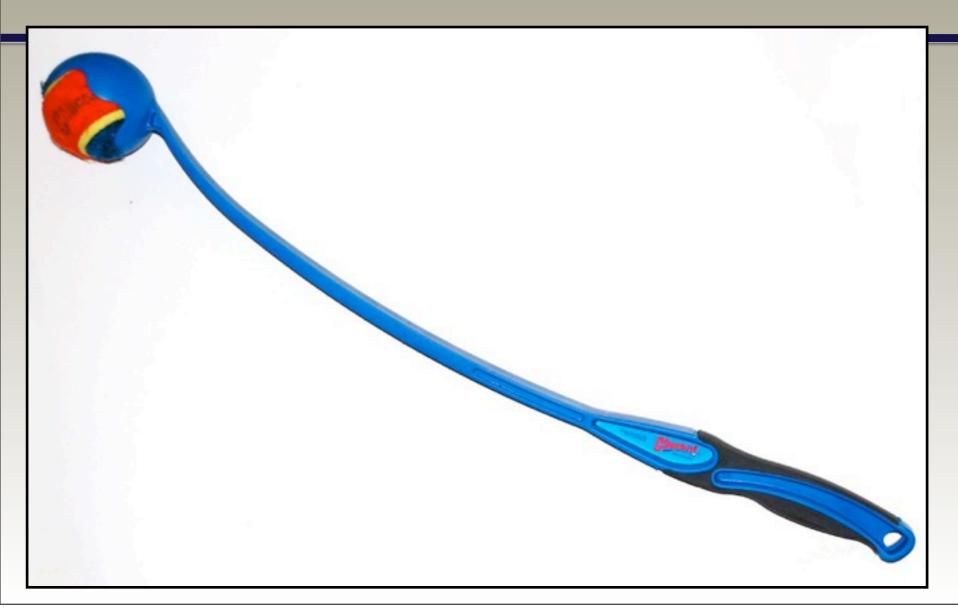
Products are the innovation

#### Innovative Ideas

Example:

Rethink the game of fetch with your dog

### Product Innovation



### What's Not Innovative?

Incremental Change

Category Expansion

Copying

## Indoor Chuckit - Category Expansion



#### Innovation

Innovation is scored by the marketplace

Innovation is defined after products are created

Innovation changes industries or creates new ones

# The Consumer Decides Which Products are Innovations





Sunday, October 7, 12

## Innovation Will Happen

At Best Buy, we've decided that we must differentiate ourselves in core ECommerce technology

We have been a retail company

We will be a technology company that does retail

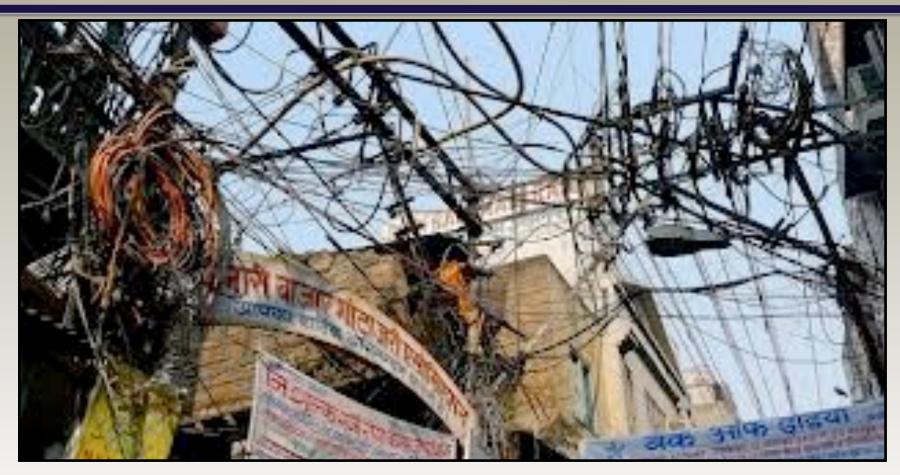
# Why Ecommerce Technology?

Clayton Christensen on architecture:

"Companies that compete with proprietary, interdependent architectures must be integrated"

~ Christensen, Clayton, The Innovator's Solution, p. 129

# Where do you start?



Recognize that innovation has a pattern

Look for the pattern inside your own company

### The Pattern of Innovation

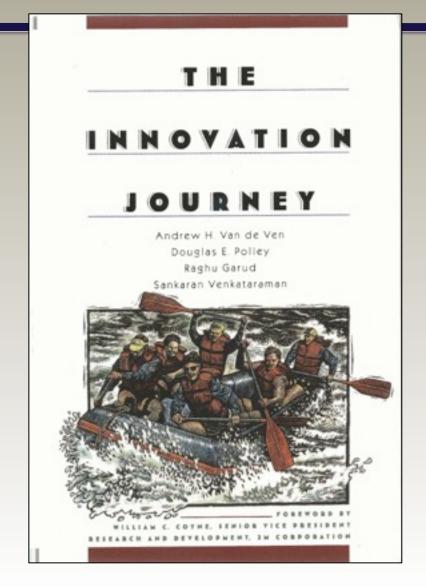
The Innovation Journey

Andrew Van de Ven

Douglas E. Polley

Raghu Garud

Sankaran Venkataraman



#### Innovation Periods

Initiation

Development

Implementation/Termination

#### Initiation Period

Gestation

Shock

**Plans** 

#### Initiation Period - Gestation

Particular ideas resurface and are rehashed for years, often with many variations

Multiple coincidental developments set the stage for an innovative product or business

## Gestation - BestBuy.com

The operations team had speculated for 5-6 years on how to remake its ECommerce systems

Development was extremely difficult

A Web Architecture team was formed in the business unit

## Finding the Pattern

What ideas constantly resurface in your company over the span of years?

"Many new innovative ideas may be generated but are not acted on in an organization until some form of shock occurs. Shocks served to concentrate attention and focus the efforts of diverse stakeholders in the organization."

~ Van de Ven, p. 28-29

#### Initiation Period - Shock

Shocks are incidents either internal or external that cause the company to change how it evaluates ideas

The company must change its business model and create new products to survive

## Shock - BestBuy.com

April 14, 2011, 3:31 PM







#### Article Tools 🖨 🖂 🖫 🖫

## Shock to the System

Innovative ldeas Emerge

#### Best Buy plans to double its e-commerce business

The retail chain projects hitting \$4 billion in web sales within five years.

Bill Briggs Senior Editor Topics: Best Buy, Best Buy growth plan, Best Buy in China, Best Buy Mobile, Best Buy web strategy, BestBuy.com, Brian Dunn, China, Five-Star stores, Shari Ballard

Best Buy Co. Inc. plans to double its annual web sales to \$4 billion within five years, while reducing bricksand-mortar store square footage in the next three to five years. The retail chain also plans to open more stores selling mobile phones and service plans.

CEO Brian Dunn and other executives laid out the electronics and appliances chain retailer's growth plan today at a presentation to Wall Street analysts at company headquarters in Richfield, MN.

Best Buy will expand its multichannel strategy based on what it has learned about the way shoppers want to engage with the company, Best Buy executive vice president Shari Ballard told analysts. "There's a new definition of convenience: the ability to interact with a company on your terms," Ballard said.



Mobile business also is set to grow.

## Finding the Pattern

Are you the champion?

"During opportune moments, these champions offered their organizations an idea or project as the vehicle to solve a crisis or exploit a commercial opportunity."

~ Van de Ven, p. 27

#### Initiation Period - Plans

Also called the Roadshow

or

Finding executive sponsorship

The idea has created enough momentum that you are now planning the budget and roadmap

## Plans - BestBuy.com

We developed financials and a roadmap to migrate off our proprietary system in 3 years

To get organizational commitment we promised to complete the project in 18 months

## Plans - Reality

"A second consequence of the initial investment process is that it created unattainable performance expectations for most innovation projects studied"

~ Van de Ven, p. 30

# Finding the Pattern

Are you truly passionate?

Reality check: this is difficult

Find anyone with organizational power and present your idea, budget, timeline and expected business benefit

## Development Period

#### Intertwined

**Phases** 

**Proliferation** 

**Setbacks** 

Criteria Shift

#### **Ongoing Concerns**

Wide Participation

Sponsors/Executives

Developing Relationships

Infrastructure Development

#### Intertwined Phases

Proliferation - ideas and scope multiply once you have funding

Setbacks - nothing goes smoothly the first time

Criteria Shift - redefine success

## Executing the Pattern

Can you focus in chaos?

The environment will try and force mediocrity on your idea, you must retain the innovative kernel and focus on industry changing innovation

## Ongoing Concerns

Wide Participation - individuals from all parts of business work on the project

**Sponsors/Executives** - frequent steering committee meetings

**Developing Relationships** - support needed throughout organization and externally

**Infrastructure Development** - key components are need both internal and external

#### Riak and the Pattern

#### Infrastructure Development

Key components and tools are needed

External partners co-develop infrastructure

## Infrastructure Development

Requires communication and community

"The industry infrastructure for an innovation system does not emerge and change all at once by the actions of one or even a few key individuals."

~ Van de Ven, p. 162

# Executing the Pattern

Identify infrastructure you can create and infrastructure others can create for you.

Infrastructure may be public, government established, or jointly with direct competitors.

# Infrastructure - BestBuy.com

Product Catalog was a proprietary system

Data is inaccessible outside of Dotcom

The product data is the fulcrum for moving BestBuy.com off the proprietary system

# Riak as Product Catalog

### We selected Riak in 2010 because:

- Designed for redundancy
- Masterless
- Scalable

However the main reason was we felt that Basho would work with us

## Basho - Infrastructure Partner

Worked with us to improve:

Search

Replication

Tuning

Co-Development occurred

## Final Period

## Implementation or Termination

Once in production or once the product launches, the market decides

Or, your management decides by terminating before launch

## Final Period

Harsh reality: you only get one shot.

"in no instances where innovations were judged as failures by top managers or investors were the innovation entrepreneurs offered another opportunity to manage a subsequent innovation."

~ Van de Ven, p. 63



Store Locator

Weekly Deals Credit Cards Reward Zone

**PRODUCTS** 

SERVICES

Search by Keyword, SKU # or Item #

**SHOPS & DEALS** 

**GIFTS** 

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FREE SHIPPING on everything at BestBuy.com. Exclusions apply. See details >

Best Buy > TV & Home Theater > TVs > All Flat-Panel TVs > Product Info



#### Insignia™ - 50" Class - LCD - 1080p - 60Hz -**HDTV**

Model: NS-50L240A13 SKU: 4882763

\*\*\* 4.8 of 5 (58 reviews)

Delivery: Most areas Check Dates

Store Pickup:

Check Stores



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- \$69.99 Home Networking Service: See How
- \$269.98-\$344.98 Mount & Service: See How
- Free Shipping



#### Best Buy Cardholder Offers:

18-Month Financing

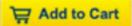


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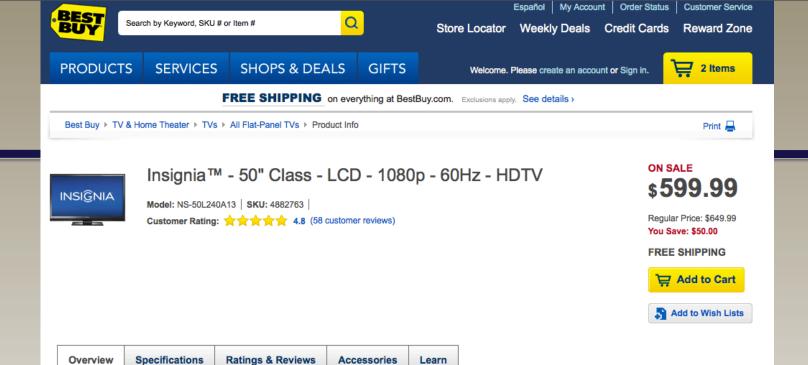
PROTECT YOUR PRODUCT 2-Year Protection Plan

\$69.99

4-Year Protection Plan \$99.99

INCLUDE PLAN

Specifications Customer Reviews Overview Leam Accessories





#### **Product Availability**





#### **Special Offers**



#### **Financing Offers**

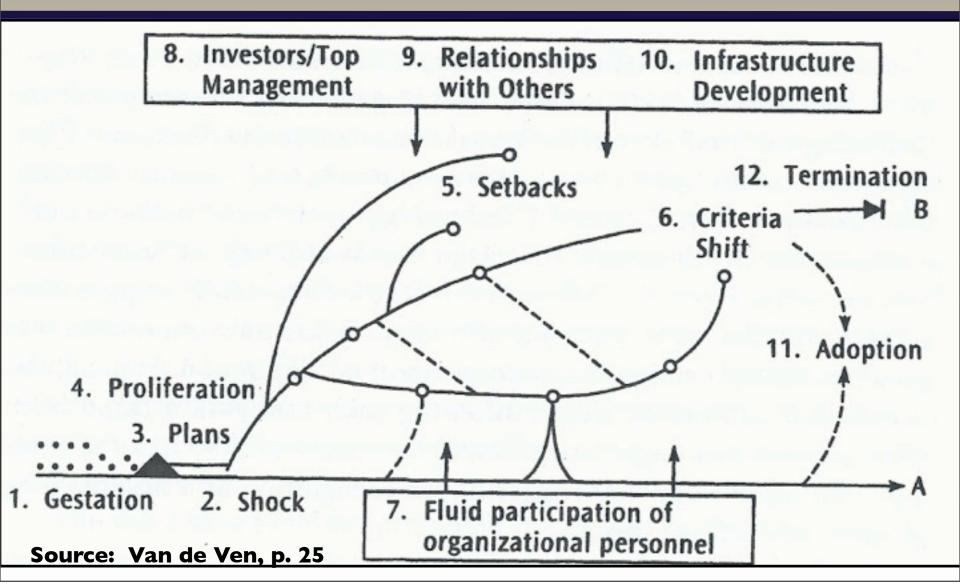
See all (2) financing Offers

## Innovation follows a pattern

# Infrastructure development requires partners

For Best Buy, Basho has supplied crucial infrastructure

## Pattern of Innovation



## Best Buy

We're Hiring!

Development centers opening soon in:

San Francisco, CA



Seattle, WA



# Joel Crabb

Chief Architect, BestBuy.com

joel.crabb@bestbuy.com

