Carnegie Mellon University

Center for Innovation and Entrepreneurship





Agile Innovation System

Lean Startup Concepts

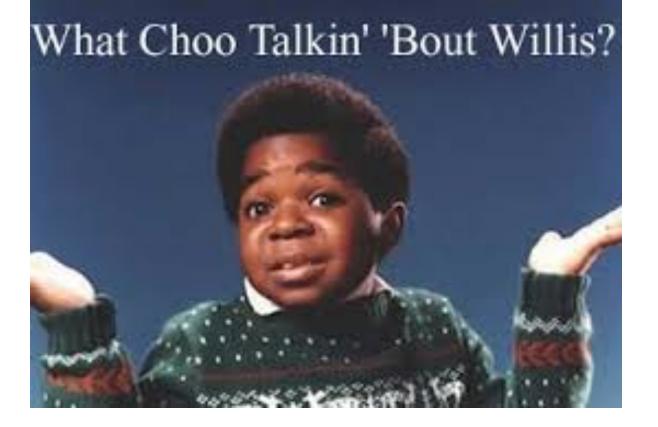
Agenda

- 1.) Introduction to Agile & Lean Startups Dave Mawhinney
- 2.) Video "The Lean Startup: Innovation Through Experimentation." Eric Ries, Web 2.0 San Francisco 2010
- 3.) Videos, "How We Validated Customer Need", Rob Daley, 4Moms





Dave Mawhinney
Serial Entrepreneur
June 2013



That Lean Startup Crap is just for lightweight Web 2.0

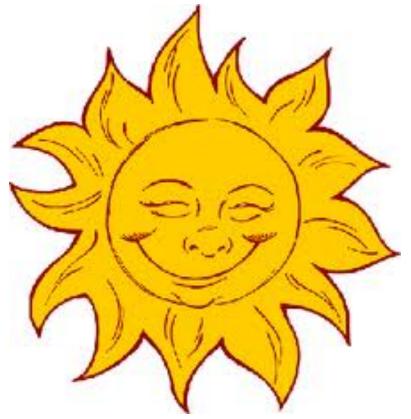
Elaine Chen "#Leanstartup — Hardware Edition" http://www.slideshare.net/chenelaine/lean-startup-hardware-edition-20563840

Mike Kuniavsky "Lean Hardware startups"

http://www.slideshare.net/mikek/lean-hardware-startups-elements-of-a-ubiquitous-computing-innovation-ecosystem



There is Nothing New Under the Sun!!



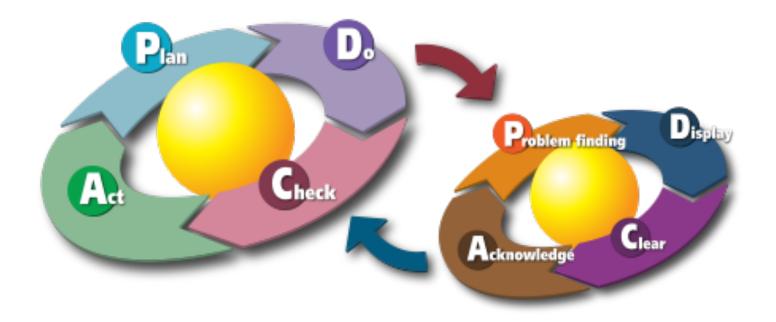








Kaizen!



Rapid, Continuous, Incremental, Improvement

Source: http://en.wikipedia.org/wiki/Kaizen

Origins of Kaizen, Lean & Agile

In 1951, as part of the United States effort to rebuild Japanese industry, the Civil Communications Section's (CCS) Economic and Scientific Section (ESS) developed the training film "Improvement in 4 Steps" (Kaizen eno Yon Dankai). This is the original introduction of "Kaizen" to Japan.

For the pioneering, introducing, and implementing Kaizen in Japan, the Emperor of Japan awarded the Second Order Medal of the Sacred Treasure to Dr. W. Edwards Deming in 1960.



2001: Agile Manifesto

We are uncovering better ways of developing software by doing it and helping others do it. Through this work we have come to value:

Individuals and interactions over processes and tools

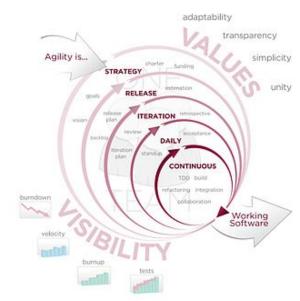
Working software over comprehensive documentation

Customer collaboration over contract negotiation

Responding to change over following a plan

That is, while there is value in the items on the right, we value the items on the left more.

AGILE DEVELOPMENT



ACCELERATE DELIVERY





Sutherland & Scwaber Fathers of Scrum

Why do most start-ups fail?

Will the dogs eat the dog food?



"A and C are a bit on the gritty side... B seems to have a bitter aftertaste... C has a good taste but a bit too mushy..."

They don't talk to customers early and often enough!

Another Evolution: MVP

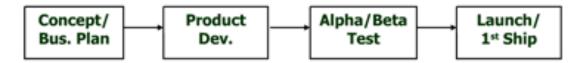


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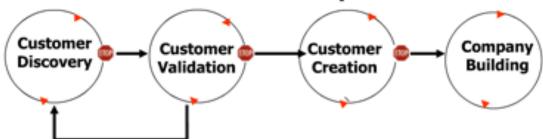
Minimal Viable Product – Lean Startups

Customer Development is as important as Product Development

Product Development



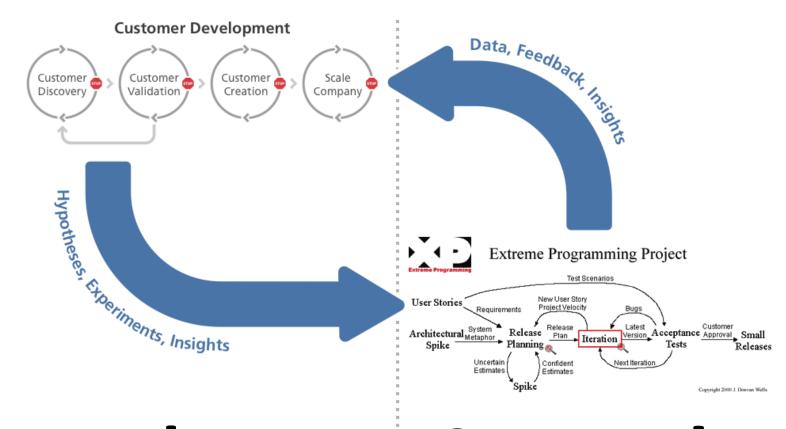
Customer Development





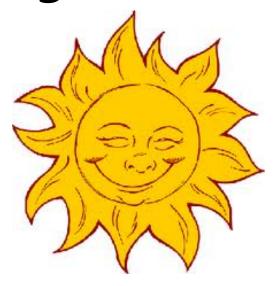
Blank, Reis, Eisenmann

Customer Development meets Agile Product Development

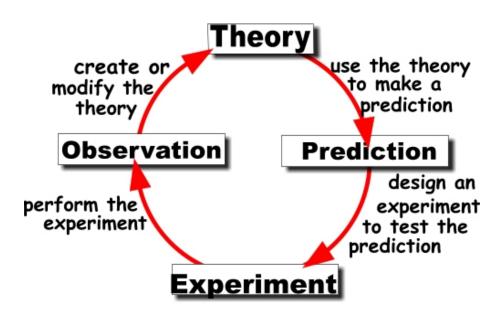


© Dave Mawhinney 2012 The Lean Startup!

There is Nothing New Under the Sun!!



The Scientific Method



Phases in the Embryonic Stage

2.Feasibility

- Benchscale Model
- Lab Tests
- Private Information G
- Preliminary Business .

3. Verification

- Prototype Product Design
- "Ouiet" Field Exposure

Evaluations

Ianagement Team

5.Commercialization

- Full Scale Production
- Explosive Market Development

4.Demonstration

- Produce First Production Quantity
- "Noisy" Customer Involvement
- Replicate Formula for Success
- "Seasoned" Management Team
- Detailed Plan of Attack



The Goodness Factor



Don JonesRobot
Entrepreneur
& VC

If you enter a market that has an existing solution and your product is the same "price", then you must be <u>THREE TIMES BETTER</u>.

Or, if you offer the same benefit, you must be **THREE TIMES CHEAPER**.

Why?

People are LAZY!!! The great HABIT FORCE is hard to break. So you must have a *GOODNESS*FACTOR to compel them to change!

The Goodness Factor



Don JonesRobot
Entrepreneur
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Quantitative Benefits

1. Saves Time



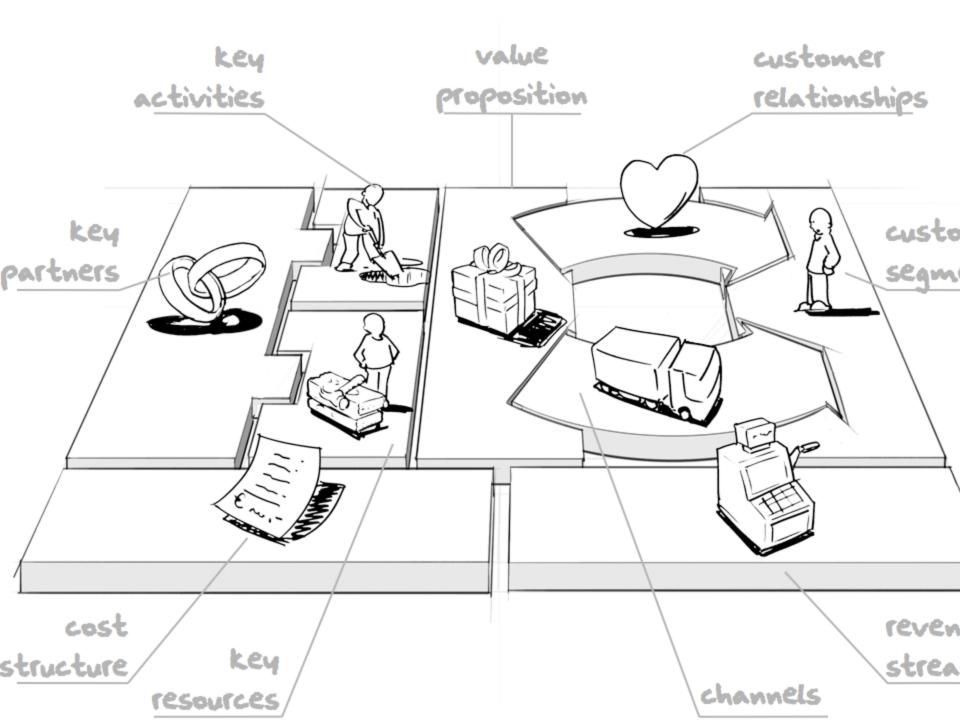
2. Saves/Makes Money



3. Hooks you up!



- 4. Fame/Recognition
- 5. Altruism/Doing Good



THE BUSINESS MODEL CANVAS

KEY PARTNERS	KEY ACTIVITIES	OFFER	CUSTOMER RELATIONSHIPS	CUSTOM
	KEY		CHANNELS	
COST STRUCTURE			REVENUE STRE	SE S

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