



# The National Science Foundation Innovation Corps™

## Teaching Handbook

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# 1 The Lean LaunchPad® Manifesto

For the last decade, we've been teaching students how to write business plans. They were useful: 1) they provided a comprehensive way to help students envision the issues, 2) were a pedagogically simple paradigm, and 3) were what venture capitalists required. Yet time and again we watched as few of those plans survived first contact with customers. It took us some time until we recognized that business plans suffered from a fatal flaw: they assumed startups were just smaller versions of large companies. We now know that they're not.

Before the Lean Startup Method started to take hold, conventional wisdom stated that the first thing a founder must do is create a business plan—a static document that with a series of implicit hypotheses describes the size of an opportunity, the problem to be solved, and the solution that the new venture will provide. Typically, it includes a five-year forecast for revenue, profits, and cash flow. A business plan is essentially a research exercise written in isolation at a desk before an entrepreneur has even begun to build a product. The implicit assumption is that it's possible to figure out most of the unknowns of a business in advance, before you raise money and actually execute the idea.

The problem with this process is that it tends to build an increasingly false sense of certainty, in an environment that is fundamentally uncertain. In this conventional model, once an entrepreneur with a convincing business plan obtains money from investors, he or she feels compelled to execute the plan as presented. He or she embarks on developing the product. Developers invest thousands of man-hours to prepare it for launch with little, if any, customer input. Only after the product is built and launched does the product get substantial feedback from customers—when the sales force attempts to sell it. And too often, after months or even years of development, entrepreneurs learn the hard way that customers do not need or want most of the product's features.

After decades of watching thousands of startups follow this standard regimen, we've now learned at least three things:

- As business plans are full of untested assumptions, they rarely survive first contact with customers. As the boxer Mike Tyson once said about his opponents' prefight strategies: "Everybody has a plan until they get punched in the mouth."

- No one, aside from venture capitalists and the former Soviet Union, requires five-year plans to forecast a series of unknowns. These plans are generally fiction, and conceiving them is almost always a waste of time.
- Startups are not smaller versions of large companies. They do not unfold in accordance with master plans. Those that ultimately succeed go quickly from failure to failure, all the while adapting, testing new iterations, and improving their initial ideas as they continually learn from customers.

Existing companies *execute* a business model, startups *search* for one. This distinction is at the heart of the lean startup approach. It shapes the lean definition of a startup: a temporary organization designed to search for a repeatable and scalable business model.

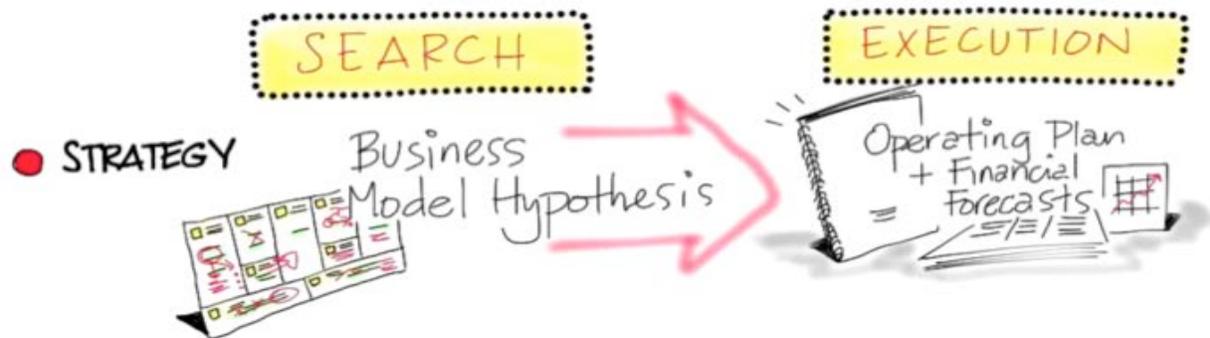
### The Lean Startup: Key Principles

First, rather than engaging in months of planning and research, entrepreneurs accept that all they have on day one is a series of untested hypotheses—basically, good guesses. The foundation of the Lean Startup is *evidence-based entrepreneurship*. Instead of creating an intricate business plan, founders summarize their hypotheses in a framework called a *Business Model Canvas*. Essentially, this is a diagram of how a company will create value for itself and its customers.

Second, lean startups use a “get out of the building” approach called *Customer Development* to test their hypotheses and collect evidence about whether they are true or false. They go out and ask potential users, purchasers, and partners for feedback on all elements of the business model, including product features, pricing, distribution channels, and affordable customer acquisition strategies. The emphasis is on nimbleness and speed; new ventures rapidly assemble minimum viable products (MVPs) and immediately elicit customer feedback. Then, using customers’ input to revise their assumptions, lean startups start the cycle over again, testing redesigned offerings and making further small adjustments (iterations) or more substantive ones (pivots) to ideas that aren’t working.

Third, lean startups practice something called *Agile Development*, which originated in the software industry. Agile Development works hand-in-hand with Customer Development. Unlike typical yearlong product development cycles that presuppose knowledge of customers’ problems and product needs, Agile Development eliminates wasted time and resources by developing the product iteratively and incrementally. It’s the process by which startups create the minimum viable products they test.

### Strategy: Business Model to Operating Plan



The emphasis on *search* for a business model versus *execution* of a plan is at the heart of the Lean LaunchPad® curriculum.

When first starting a new venture, the [business model](#) is *unknown*.<sup>1</sup> It is a set of untested hypotheses. Startup teams' key task is to test hypotheses, *searching* to verify the business model components; e.g., Customer Segments, value proposition, product features, channels, pricing, [Get/Keep/Grow](#) strategy.<sup>2</sup> Once the business model is *known*, new ventures benefit from creating a business plan to determine and communicate how the business will be executed.

The term "business model" first appeared around 50 years ago, but the concept didn't catch on [until the 1990s](#).<sup>3</sup> A business model describes how a company creates, delivers, and captures value. It became common to discuss business models, but without a standard framework and vernacular, confusion reigned. In 2010, when Alexander Osterwalder published his book, [Business Model Generation](#), he provided a visual ontology and a clear vernacular that was sorely needed, and it became obvious that this was *the* tool to organize startup hypotheses.<sup>4</sup>

The primary objective of a startup is to [validate its business model hypotheses](#) until it finds one that is repeatable and scalable (it continues to iterate and pivot until it does).<sup>5</sup> Then it moves into *execution* mode. It's at this point the startup needs a business plan, a document that articulates the model, market, competition, operating plan, financial requirements, forecasts, and other well-understood management tools.

<sup>1</sup> <http://businessmodelalchemist.com/2011/01/methods-for-the-business-model-generation-how-bmgen-and-custdev-fit-perfectly.html>

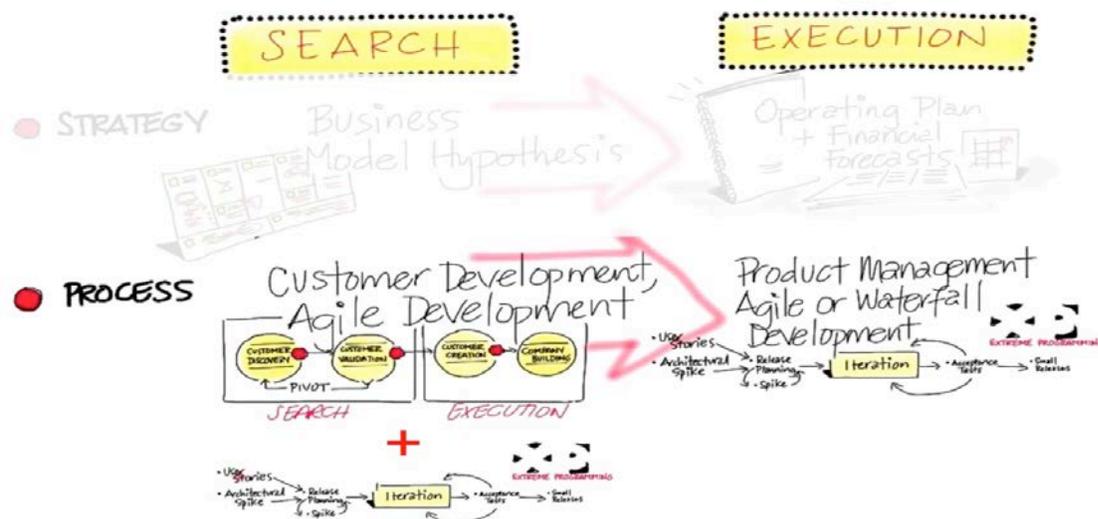
<sup>2</sup> <http://steveblank.files.wordpress.com/2012/02/full-mobile-color-copyright.jpg>

<sup>3</sup> <http://icc.oxfordjournals.org/content/11/3/529.short>

<sup>4</sup> [http://www.amazon.com/Business-Model-Generation-Visionaries-Challengers/dp/0470876417/ref=sr\\_1\\_1?s=books&ie=UTF8&qid=1312200974&sr=1-1](http://www.amazon.com/Business-Model-Generation-Visionaries-Challengers/dp/0470876417/ref=sr_1_1?s=books&ie=UTF8&qid=1312200974&sr=1-1)

<sup>5</sup> <http://steveblank.com/2010/10/25/entrepreneurship-as-a-science-%E2%80%93-the-business-modelcustomer-development-stack/>

## Process: Customer and Agile Development to Product Management



Yet as powerful as the [Business Model Canvas](#) (a template with the nine blocks of a business model) is, at the end of the day it was a tool for brainstorming hypotheses without a formal way of testing them.<sup>6</sup> The Lean LaunchPad® approach extends this process, providing a set of tools for testing hypotheses and enhancing the venture through experimentation and iteration.

The processes used to organize and implement the search for the business model are *Customer Development* and *Agile Development*. A search for a business model can occur in any new business—in a brand new startup or in a new division of an existing company.

The Customer Development model breaks out all the customer-related activities of an early-stage company into four easy-to-understand steps. The first two steps of the process outline the search for the business model. Steps three and four execute the business model that's been developed, tested and proven in steps one and two. The steps:

- *Customer Discovery* first captures the founders' vision and turns it into a series of business model hypotheses. Then it develops a plan to test customer reactions to those hypotheses and turn them into facts.
- *Customer validation* tests whether the resulting business model is repeatable and scalable. If not, you return to Customer Discovery.
- *Customer creation* is the start of execution. It builds end-user demand and drives it into the sales channel to scale the business.

<sup>6</sup> [http://en.wikipedia.org/wiki/Business\\_Model\\_Canvas](http://en.wikipedia.org/wiki/Business_Model_Canvas)

- *Company building* transitions the organization from a startup to a company focused on executing a validated model.

In the search steps, you want a process designed to be dynamic, so you work with a rough business model description, knowing it will change. The business model changes because startups use Customer Development to run experiments to test the hypotheses that make up the model (first testing their understanding of the customer problem and then solutions). Most of the time these experiments fail. *Search embraces failure as a natural part of the startup process.* Unlike existing companies that fire executives when they fail to match a plan, *we keep the founders and change the model.*

Once a company has found a business model (knows its market, product/service, customers, channel, pricing etc.), the organization moves from search to execution.

The product execution process—managing the lifecycle of existing products and the launch of follow-on products—is the job of the [product management](#)<sup>7</sup> and engineering organizations. It results in a *linear process* where you make operating plans and refine them into detail. The more granularity you add to a plan, the better people can execute it: a [Business Requirement Document](#)<sup>8</sup> (BRD) leads to a Market Requirements Document (MRD) and then gets handed off to engineering as a [Functional Specifications Document](#)<sup>9 10</sup> (FSD) implemented via agile or waterfall development.

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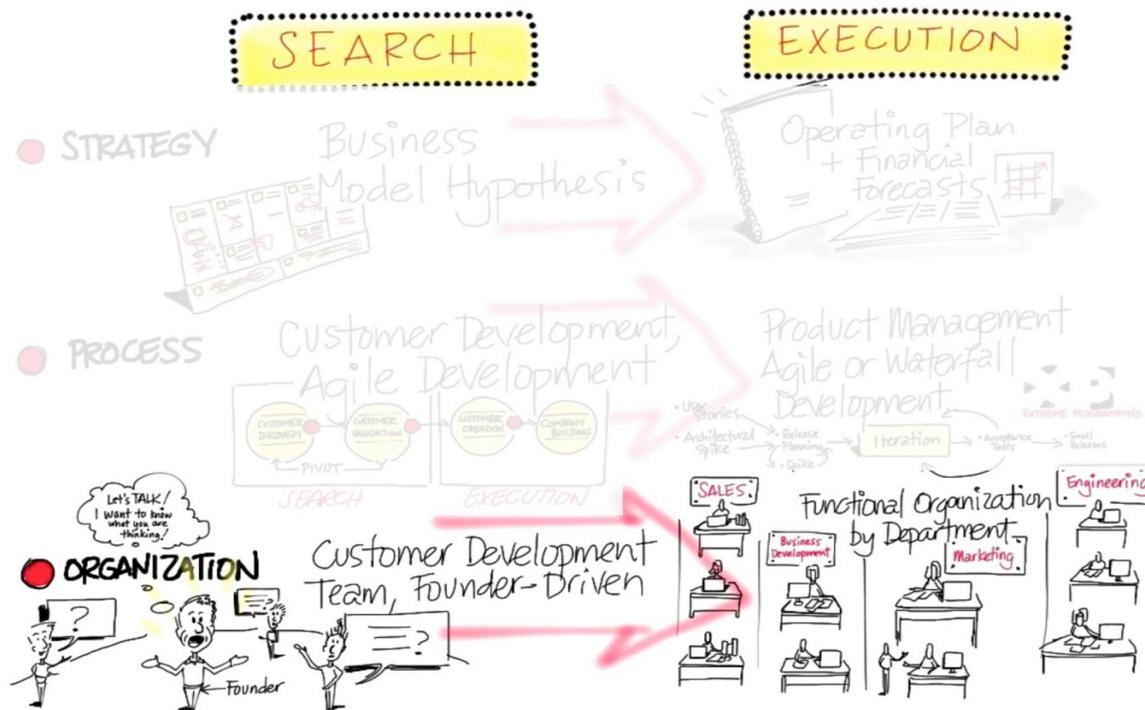
<sup>7</sup> [http://en.wikipedia.org/wiki/Product\\_management](http://en.wikipedia.org/wiki/Product_management)

<sup>8</sup> <http://www.isixsigma.com/implementation/project-selection-tracking/business-requirements-document-high-level-review/>

<sup>9</sup> <http://www.its-all-design.com/what-actually-goes-in-a-functional-specification/>

<sup>10</sup> <http://www.netsolutionsindia.com/blog/business-and-functional-requirements-what-is-the-difference-and-why-should-you-care/>

## Organization: Customer Development Team to Functional Organization



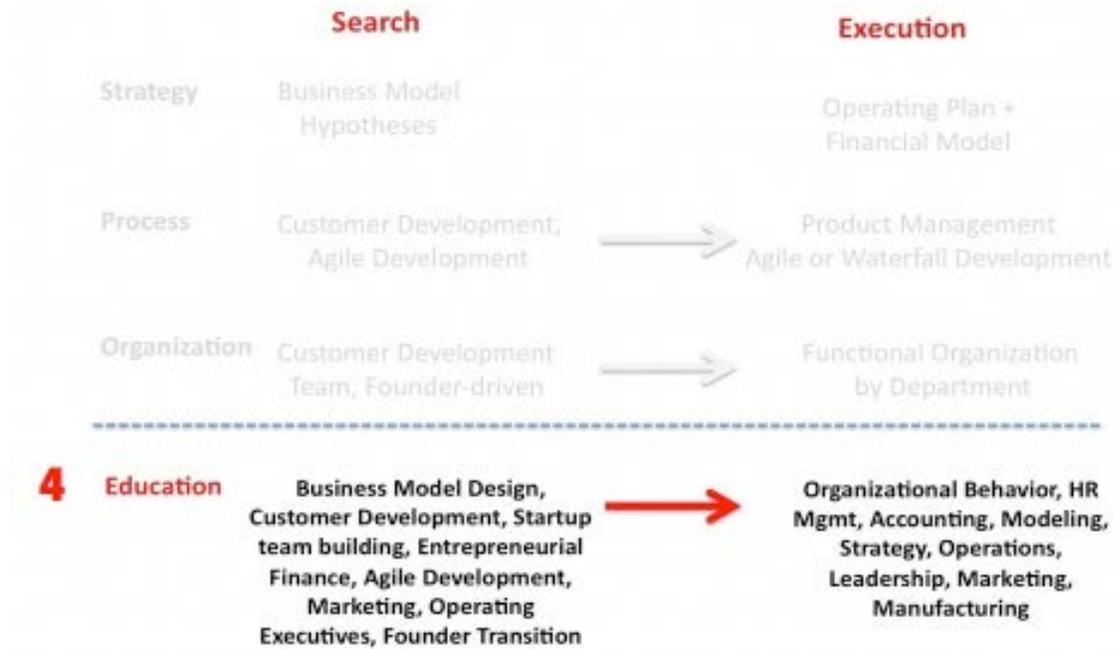
In a start-up, the search for a business model *requires a different organization*<sup>11</sup> than the one used to execute a plan. Searching requires the company to be organized around a *Customer Development team* led by the founders. It's only the founders who can make the strategic decisions to iterate and/or pivot the business model, and to do what they need to hear customer feedback directly. In contrast, execution (which follows search) assumes that the job specifications for each of the senior roles in the company can be tightly authored. Execution requires the company to be organized by function (product management, sales, marketing, business development, etc.).

Companies in execution suffer from a "fear of failure culture," quite understandable since they were hired to execute a known job spec. Startups with Customer Development teams have a "learning and discovery" culture for search. The fear of making a move before the last detail is nailed down is one of the biggest problems existing companies have when they need to learn how to search.

The idea of not having a functional organization until the organization has found a proven business model is one of the hardest things for new startups to grasp. *There are no sales, marketing or business development departments when you are searching for a business model.* If you've organized your startup with those departments, you are not really doing Customer Development. (It's like trying to implement a startup using Waterfall engineering.)

<sup>11</sup> <http://steveblank.com/2010/09/13/job-titles-that-can-sink-your-startup/>

## Education: Search to Execution



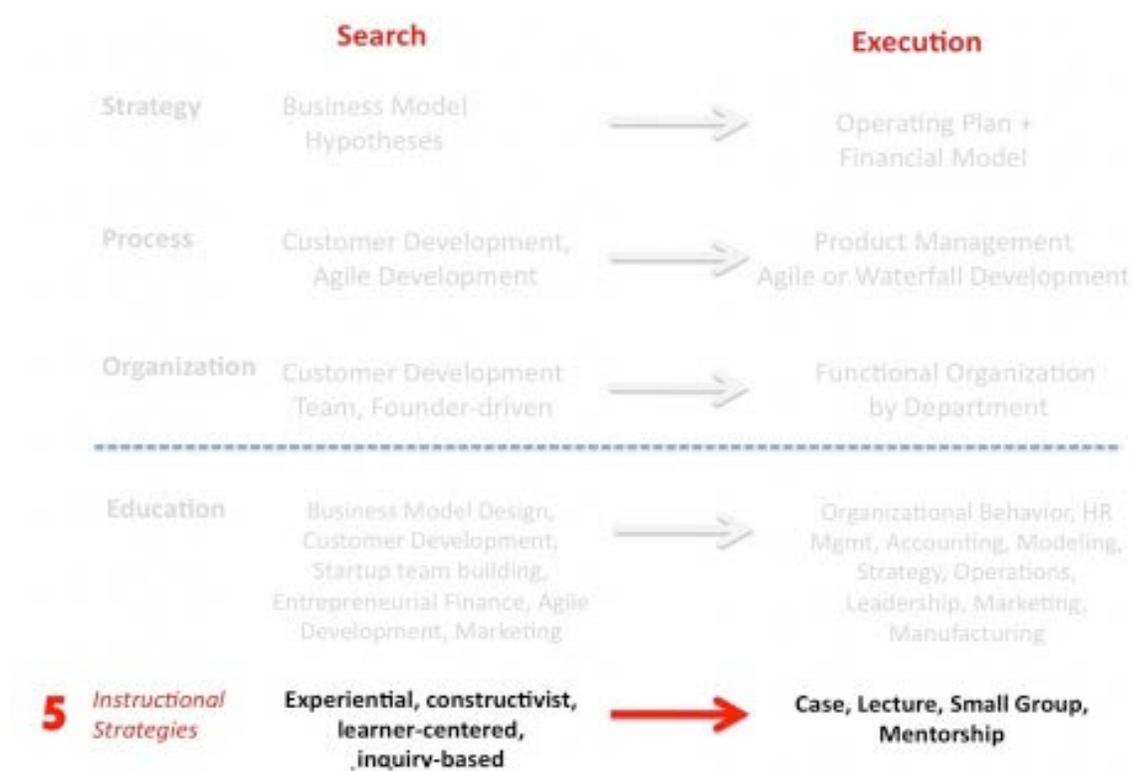
Entrepreneurship curricula are only a few decades old. First taught as electives and now part of core business school curricula, the field is still struggling to escape from the bounds of the business plan-centric view that startups are smaller versions of a large company. Venture capitalists who've watched as *no startup business plan survived first contact with customers* continue to insist that startups write business plans as the price of entry to venture funding. This continues to be the case even as many of the best venture capitalists (VCs) understand that *business planning, and not the plan itself*, is what is important.

The trouble is that, over time, this key message has gotten lost. As business school professors, many of whom lack venture experience, studied how VCs made decisions, they observed the apparently central role of the business plan and proceeded to make the plan, *not the planning*, the central framework for teaching entrepreneurship. As new generations of VCs with MBAs came into the business, they compounded the problem: "That's how we've always done it," or, "That's what I learned (or the senior partners learned) in business school."

Entrepreneurship educators have realized that a plan-centric curriculum may get by for teaching incremental innovation, but it won't turn out students prepared for the realities of building new ventures. Educators are now beginning to build their own E-school curricula with a new class of management tools built around search and discovery.

Business model design, product/service development, Customer Development, startup team building, entrepreneurial finance, marketing, founder transition, etc.: all provide the startup equivalent of the management tools MBAs learn for execution.

## Instructional Strategy: Static to Dynamic



Entrepreneurial education is also changing the focus of the class experience from **case method**<sup>12</sup> to hands-on experience. Invented at Harvard, the case method approach assumes that knowledge is gained when students actively participate in a discussion of a situation that may be faced by decision makers.

But the search for a repeatable business model for a new product or service does not follow a predictable pattern. An entrepreneur must start with the belief that all her assumptions are simply hypotheses that will undoubtedly be challenged by what she learns from customers. Analyzing a case in the classroom, removed from the realities of chaos and conflicting customer responses, adds little to an entrepreneur's knowledge.

Cases can't be replicated because the world of a startup is too chaotic and complicated. The case method is the antithesis of how entrepreneurs build startups—it teaches pattern recognition tools for the wrong patterns—and therefore has limited value as a tool for teaching entrepreneurship.

The replacement for the case method is not better cases written for startups. Instead, it

<sup>12</sup> <http://www.hbs.edu/mba/academic-experience/Pages/the-hbs-case-method.aspx>

is business model design; using the business canvas as a way to 1) capture and *visualize the evolution* of business learning in a company, and 2) see what *patterns* match real-world iterations and pivots. It is a tool that better matches the real-world search for the business model.

The Lean LaunchPad® method is best taught in a live case environment, where the cases being analyzed are the actual, real-time experiences of students (generally operating in teams) searching for repeatable and scalable business models for ventures they are seriously evaluating. This is done in a classroom where the students report on their experiences and receive real-time feedback from an instructional team of experienced practitioner-educators. The in-class discussion draws generalizable learning points from the specifics of each live case. These learning points are summarized and tied together to form the backbone of the pedagogical framework. In other words, the Lean LaunchPad® Method draws the general framework from the specific experiences of the students.

Such teaching presents challenges: It relies on a Teaching Team able to derive these lessons in real-time, without the benefit of knowing when the opportunities will arise, and it places a premium for using precious in-class time for reporting out and discussing student experiences. These pressures have given rise to several pedagogical innovations: first, to preserve class time, the Lean LaunchPad® class is typically taught with a “flipped classroom.” Here, the lectures are homework (such as interactive videos) and the homework (testing hypotheses in front of customers) is classroom discussion as all teams present. Second, to keep track of the students’ Customer Discovery progress, we use an online tool (Innovation Within) to record the week-by-week narrative of their journey and track the frequency of customer, mentor, and instructor interactions. And third, in class, students use the peer review tool in Innovation Within to record observations and advice for their fellow classmates. The Teaching Team integrates all these elements during class discussion and in individual team meetings.

A comprehensive entrepreneurial curriculum will obviously have more extensive core classes based on theory, lecture, and mentorship. However we believe this shift toward fundamentally experiential learning, emphasizing discovery as the core of the learning process, makes a significant contribution. There’s embarrassingly little research on entrepreneurship education and outcomes, but we do know that students learn best when they can connect with the material in a hands-on way, making their own mistakes and learning from them directly. We need to test the limits of bringing these methods to the fore.

As much as possible, the curricular emphasis ought to be on experiential, learner-centric, and inquiry-based classes that help to develop the mindset, reflexes, agility, and resilience an entrepreneur needs to search for certainty in a chaotic world.

## Lessons Learned

- The search for the business model is the front end of the startup process
- This is true in the smallest startup or the largest company
- The goal is to find a repeatable/scalable business model, and then execute
- Customer Development and Agile Development are the processes for searching and building the model
- Searching for the business model comes before executing it
- Execution requires operating plans and financial forecasts
- Product management is the process for executing the model
- Entrepreneurial education is developing its own management stack
  - Starting with how to design and search for a business model
  - Adding all the other skills startups need
  - The case method is the antitheses of an entrepreneurial teaching method

## 2 The NSF Lean LaunchPad® – Goals

The I-Corps™ Lean LaunchPad® has different goals than the same class taught in a university or incubator. In a university class, the goal of the Lean LaunchPad® is to impart a methodology the students can use for the rest of their careers. When taught in an incubator, the goal of the Lean LaunchPad® is a series of investor-funded startups.

When taught for the NSF I-Corps™, the goal of the class is to teach NSF-funded researchers how to move their technologies from university labs into the commercial world. Unlike a traditional incubator where a successful outcome is an angel or venture-funded startup, for the I-Corps™ the expected outcomes for Teams include:

New startups funded via:

- A NSF SBIR Phase 1 grant
- Angel/VC funding
- Patent or technology license to a U.S. company

If the Teams pursue a SBIR Phase 1 grant (\$150K), the NSF looks at the I-Corps™ project and asks: 1) Is this Team's product viable? Go/no go? 2) If it's a go, what's the transition plan to do so?, and 3) Is there a technology demonstration for potential partners?

### Winners and Losers

The I-Corps™ doesn't pick winners or losers. It doesn't replace private capital with government funds. Its goal is to get research the country has already paid for to the point where it can attract private capital. (It's why we teach the class with experienced venture capitalists.)

While many agencies use the Technology Readiness Levels to measure a project's *technical* maturity, there are no standards around *business* maturity levels. The output of the NSF I-Corps™ course provides a proxy for a minimum level of business maturity.

Our goal is to get the science out of the labs and into use by U.S. corporations. For the first time, private capital now can look at "business ready" technology.

We do this by rapidly helping the I-Corps™ Teams to personally discover that their idea is just a small part of what makes up a successful company.

Here's how we do it...

# 3 Lean LaunchPad® Pedagogy – Experiential Learning and a Flipped Classroom

The Lean LaunchPad® is a hands-on program that immerses Teams in testing their business model hypotheses outside the classroom. Inside the classroom, it deliberately trades off lecture time for participant/Teaching Team interaction.

The Lean LaunchPad® uses the Customer Development process and the Business Model Canvas to collapse the infinite possibilities of a startup into a solvable problem.

## Experiential Learning

Experiential learning has been around forever. Think of the guilds, apprentices, etc. Mentors were the master craftsmen. That's the core idea of this class.

This course uses experiential learning as the paradigm for engaging the participants in discovery and hypotheses testing of their business models. From the first day we meet, the Teams get out of the classroom and learn by doing.

This is very different from how a business school "how to write a business plan" class works. There, a valid business model is assumed. In this Lean LaunchPad® class, the Teams are *not* building a business (yet). What they learn from customers will validate/invalidate their hypotheses (theses), and they will modify the business model (iterate or pivot). This results in the Teams' bringing market needs forward. Then they can decide whether there's a business to be built.

What this class does not include is execution of the business model. In this course, implementation is all about discovery outside the classroom. Once discovery has resulted in a high degree of confidence that a viable business model exists, it is time to create an execution plan. If the Teams continue with their companies, they will assemble the appropriate operating plans (financial models, revenue plans, etc.).

## The Flipped Classroom

Rather than classroom lectures by an instructor in the weeks we are remote and online, the lectures have now become homework. Teams will watch a lecture on each component of the Business Model Canvas, take a short quiz and have access to a class forum for questions. Their homework for that week assumes they will use that new knowledge to test that specific part of the business model.

# 4 NSF I-Corps™ Teams

The National Science Foundation I-Corps™ Teams consist of three members: the Principal Investigator (PI), the Entrepreneurial Lead (EL) and the Mentor. The PI has to have received an NSF grant within the last 5 years. See requirements in the [NSF Grant Proposal Guide \(GPG\)](#).<sup>13</sup>

## Team Formation

The Principal Investigator (a professor who has had an active NSF award within the last 5 years) gets permission to submit a proposal from a NSF program director (ENG, CISE, BIO, GEO, EHR, MPS, SBE, and OCI).

Principal Investigators, average age of about 45, are tenured faculty. Most run their own labs. The PI forms the Team by selecting one of his/her graduate students to be the Entrepreneurial Lead (EL).

The Entrepreneurial Lead is a graduate student or post doc (average age of 28) who works in the PI's lab, and is within a year of graduating. If a commercial venture comes out of the I-Corps™, it is more than likely that the Entrepreneurial Lead will take an active role in the new company. The PI will stay on in his/her academic roles and typically continue as advisor.

The Mentor, average age of 50, is typically not part of the PI's school, but is an experienced or emerging entrepreneur near the institution who has experience in transitioning technology out of academic labs. Mentors may be recommended by the PI (they may have worked with the PI in the past) or they may be a member of the NSF I-Corps™ Mentor network. Some mentors volunteer for the role because they are planning to be an active participant in the startup that comes out of the class.

The proposal to the NSF includes the Team background and history together, a project plan, lineage of the proposed innovation, product/service concept and demo, potential commercial and market impact and time horizon to impact. It typically takes less than 45 days from proposal submission to a decision.

The Team interviews with the NSF program directors. The final selection interviews include the Teaching Team. Selected PIs are awarded \$50,000 I-Corps™ 6-month grants.

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<sup>13</sup> [http://www.nsf.gov/pubs/policydocs/pappguide/nsf11001/gpg\\_index.jsp](http://www.nsf.gov/pubs/policydocs/pappguide/nsf11001/gpg_index.jsp)

## Team Dynamics

Just like in a startup, the demands and pressure of the course can create conflicts within Teams. At times we've seen:

- PIs who won't listen to mentors' experience in how to talk to customers
- ELs who are afraid to contradict or speak up when they disagree with their PIs
- ELs who are ill-suited for entrepreneurship and avoid Customer Development
- Mentors who come in convinced they have "the answer" and ignore the process
- Mentor/PI conflict on direction and strategy

As the Teaching Team, your job is not to solve the Teams' problems but to help them diagnose their own and facilitate solutions. At times, all it takes is a conversation about roles, expectations and desired outcomes from the class. If the problem is more serious, make sure the lead NSF program director is aware of the issue.

Team Member	Characteristics	Role
<b>Principal Investigator (PI)</b>	<ul style="list-style-type: none"> <li>• Tenured researcher professor</li> <li>• Average age: 45</li> <li>• Has an active NSF award within the last 5 years in a field relevant to the proposed innovation</li> <li>• ¼ - ½ have participated in a startup</li> </ul>	<ul style="list-style-type: none"> <li>• Creator of the science / technology or research that is within striking distance to product or process demonstration</li> <li>• Technical lead and project manager</li> </ul>
<b>Entrepreneurial Lead</b>	<ul style="list-style-type: none"> <li>• Post-doc or student</li> <li>• Average age: 28</li> <li>• Typically, no prior entrepreneurial experience</li> <li>• Relevant knowledge of the technology and a deep commitment to investigate the commercial landscape surrounding the innovation</li> </ul>	<ul style="list-style-type: none"> <li>• Selected by the PI to support the transition of the technology, to leave the academic institution</li> </ul>
<b>Mentor</b>	<ul style="list-style-type: none"> <li>• A volunteer from the local area with relevant domain expertise</li> <li>• Average age: 50</li> <li>• May be an experienced entrepreneur and have worked transiting technology out of academic labs</li> <li>• May have worked with the PI and/or the NSF in the past</li> </ul>	<ul style="list-style-type: none"> <li>• Provide insight from the private sector. (Downside is that most grew up with the "how to write a business plan" mentality. Almost all get this. A few don't.)</li> <li>• The I-Corps™ Mentor will be responsible for guiding the Team forward and tracking progress through regular communication with the cognizant NSF I-Corps™ program director</li> </ul>

# 5 Course Logistics

**Kick-Off:** In week 1, participants attend 3 days of on-site training at a NSF-designated Node.

- A bit over half of the time is spent on Team presentations, critiques and in-person lectures
- The other time consists of getting out of the building and talking to customers

**Remote:** For the next 5 weeks, back at their universities,

- Teams spend ~15 hours a week talking to customers
- During the week, they watch an interactive lecture on a portion of the Business Model Canvas and engage in a 1-hour discussion with the Teaching Team and their peers
- In addition, each week, Teams spend two hours online as they present their findings via WebEx and hear their peers' presentations

**Closing:** In Week 7, they reconvene for two days at the same NSF-designated location

- One day dedicated to presentation training and what's next for Teams
- Another for the final "Lessons Learned" presentations

## Classes

For each weekly class session, there are:

- a. Pre-class readings
- b. A lecture (in-person or pre-recorded online)
- c. An in-class Team 10-minute presentation
- d. Weekly assignment to get out of the building and test one of the business model components with ~15 customers

Each week's class session is organized around:

- Team presentations on their "lessons learned" from talking with customers and iterating or pivoting their business models.
- Lectures:
  - For the first week (3 classes), three in-person business model lectures;
  - Online, in weeks 2-6 (classes 4-8), lectures are assigned as homework with quizzes

Week	Location	Lecture	Topic
Week 1	On-site	Lecture 1	Intro, Business Models, and Customer Development
	On-site	Lecture 2	Value Proposition
	On-site	Lecture 3	Customers
Week 2	Online, self paced	Lecture 4	Channels
Week 3	Online, self paced	Lecture 5	Customer Relationships Get/Keep/Grow
Week 4	Online, self paced	Lecture 6	Revenue Model
Week 5	Online, self paced	Lecture 7	Partners
Week 6	Online, self paced	Lecture 8	Resources and Costs
Week 7	On-Site	Lecture 9	Effectively Communicating Your I-Corps™
	On-Site	Lecture 10	Learning Journey Story Lessons Learned Presentations

The online lectures are delivered via Innovation Within:

The screenshot shows a web browser window with the URL <https://www.launchpadcentral.com/videos/series>. The page title is "How to Build a Startup". On the left, there is a list of lecture topics:

- Lecture 1: What We Now Know
- Lecture 1.5A: Business Models and Customer Development
- Lecture 1.5B: Business Models and Customer Development
- Lecture 2: Value Proposition
- Lecture 3: Customer Segments
- Lecture 4: Channels
  - ▶ Introduction
  - ✓ Distribution Channels Overview
  - Your Product
  - Your Product Solution
  - Web Distribution
  - Physical Distribution
  - Distribution Complexity

The main content area features a video player for "How to Build a Startup 4-1 Introduction". The video thumbnail shows a hand-drawn diagram with the text "3 CHANNELS" and "How does the product get from our company to the customer?". The diagram includes labels for "Physical channels", "WEB/Mobile Channels", and "Our Company". The video player shows a progress bar at 1:03 / 1:03.

## Office Hours

In addition to reviewing each Team's progress via the Innovation Within software, the Teaching Team has office hours that Teams are encouraged to take advantage of every week. Office hours help to provide course-correction and uncover the inevitable team dynamics issues.

## Textbooks

There are 2 required textbooks for this course:

BMG: Business Model Generation: A Handbook for Visionaries, Game Changers and Challengers (Alexander Osterwalder, Yves Pigneur, 2010)

SOM: The Startup Owner's Manual, The Step-by-Step Guide for Building a Great Company (Steve Blank and Bob Dorf, 2012)

Lecture Slides can be found here in the new faculty toolkit:

<http://venturewell.org/i-corps/newfaculty/>

Required Customer Discovery training videos and Online I-Corps™ lectures 4-8 can be found on Innovation Within:

Insert link

I-Corps™ Team presentation and video examples can be found:

<http://venturewell.org/i-corps/team-materials/>

Additional Team presentation examples can be found:

<http://www.slideshare.net/sblank/tagged/i-corps>

## Guidelines for Team presentations

Each Team is expected to speak to about ~15 customers every week to reach a total of 100 interviews. The 10-minute weekly Team presentations are summaries of the Team's findings during that week.

Slide 1	Cover slide (Team name, university, Team members/roles, number of customers spoken with, what the Team does)
Slide 2-n	What did you learn about "topic of the day" (Canvas block x) <ul style="list-style-type: none"><li>▪ Hypothesis: Here is what we thought</li><li>▪ Experiments: So here's what we did</li><li>▪ Results: So here's what we found</li><li>▪ Iterate: So here's what we are going to do next</li></ul> Diagram (if appropriate) of what you learned this week (e.g., customer workflow, payment flows, distribution channel diagram)
Final Slide	Updated Business Model Canvas

Feedback from the Teaching Team during oral presentations is where the most learning occurs. Due to the pace and tempo of the course, participants must be held accountable to the material for the specific class.

# 6 Instructor Pre-Course Preparation

## Objective:

Have a basic understanding of:

- a. The Lean LaunchPad®
- b. Business Model Canvas
- c. Customer Development

## Instructor Reading Material:

1. Textbooks
  - Alexander Osterwalder & Yves Pigneur, Business Model Generation (BMG)  
[https://strategyzer.com/books?\\_ga=1.46001700.1834901164.1420475223](https://strategyzer.com/books?_ga=1.46001700.1834901164.1420475223)
  - Steven Blank, The Startup Owners Manual (SOM)  
[http://www.stevenblank.com/startup\\_index\\_qty.html](http://www.stevenblank.com/startup_index_qty.html)
  - Watch the Osterwalder video at:  
<http://ecorner.stanford.edu/authorMaterialInfo.html?mid=2875>
2. Read Customer Development Manifesto (Chapter 2, SOM)
3. Review the lectures:
  - All PowerPoint decks: <http://venturewell.org/i-corps/newfaculty/>
  - Online Lectures (videos) 4-8: <https://www.launchpadcentral.com>
4. Review the Lean Launch Pad class background:
  - <http://steveblank.com/category/lean-launchpad/>
  - <http://steveblank.com/2010/12/07/the-lean-launchpad---teaching-entrepreneurship-as-a-management-science/>
  - <http://steveblank.com/2011/05/10/the-lean-launchpad-at-stanford---the-final-presentations/>
  - [http://steveblank.com/2012/02/16/who-dares-wins-the-2<sup>nd</sup>-annual-international-business-model-competition/](http://steveblank.com/2012/02/16/who-dares-wins-the-2nd-annual-international-business-model-competition/)

5. Look at Business Model Canvas:
  - [http://www.businessmodelgeneration.com/downloads/businessmodelgeneration\\_preview.pdf](http://www.businessmodelgeneration.com/downloads/businessmodelgeneration_preview.pdf)
6. Watch the Customer Discovery videos:
  - <https://www.launchpadcentral.com>
7. Previous I-Corp Final Presentations:
  - <http://venturewell.org/i-corps/team-materials/>
8. Read the *Course Handbook* regarding your role with course administration:
  - <http://venturewell.org/i-corps/newfaculty/>

# 7 Student/Instructor Success Criteria

The success of this curriculum is dependent on a consistent set of beliefs and culture by the students (i.e., I-Corps™ Teams) and instructors. The fundamental principles of the course are:

## *Process*

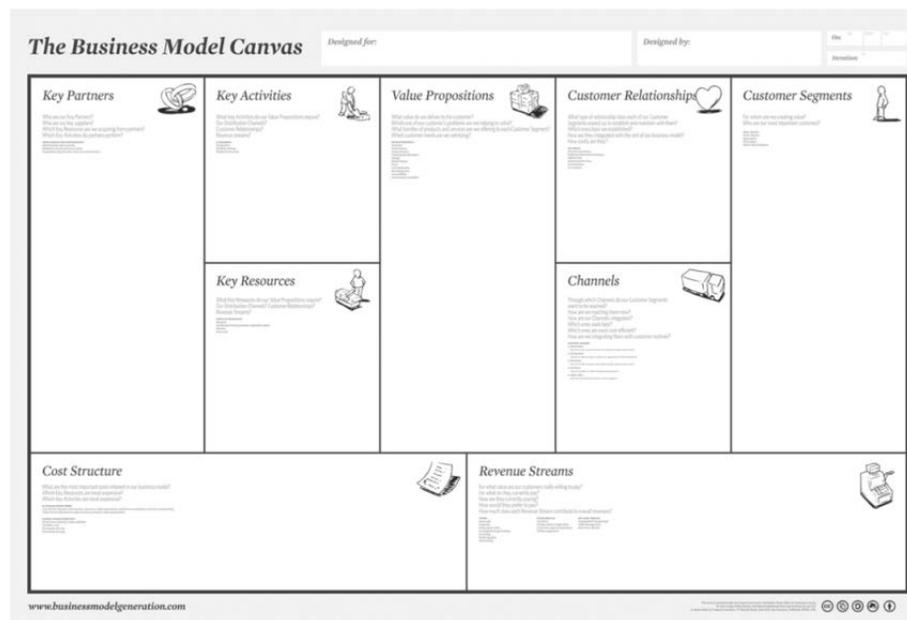
1. There are no facts inside your lab or building, so get the heck outside
2. Your idea/invention is not a company, it's one of the 9 building blocks
3. We use the Business Model Canvas to articulate our hypotheses
4. We use Customer Development to test those hypotheses
5. We use the Business Model Canvas to keep track of what we learned
6. We expect that many of our initial hypotheses are wrong
7. Iterations and pivots are the expectation

## *Culture*

1. A mindset of hypotheses-testing, *not* execution
2. Active participation by all Team members
3. All of you are held accountable for your Team performance
4. High-speed pace and tempo
5. Teams average 100 customer contacts (not including focus groups and surveys)
6. Bring your sense of humor—without it, you will suffer

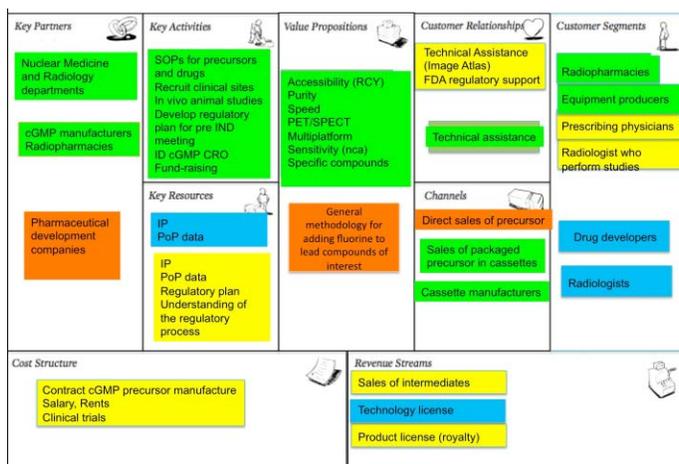
# 8 The Business Model Canvas

There's often a lack of a shared and clear understanding of the business model throughout a company. This class uses the Business Model Canvas to diagrammatically illustrate how a company intends to make money.



The canvas represents any company in nine boxes, depicting the details of a company's product, customers, channels, demand creation, revenue models, partners, resources, activities and cost structure.

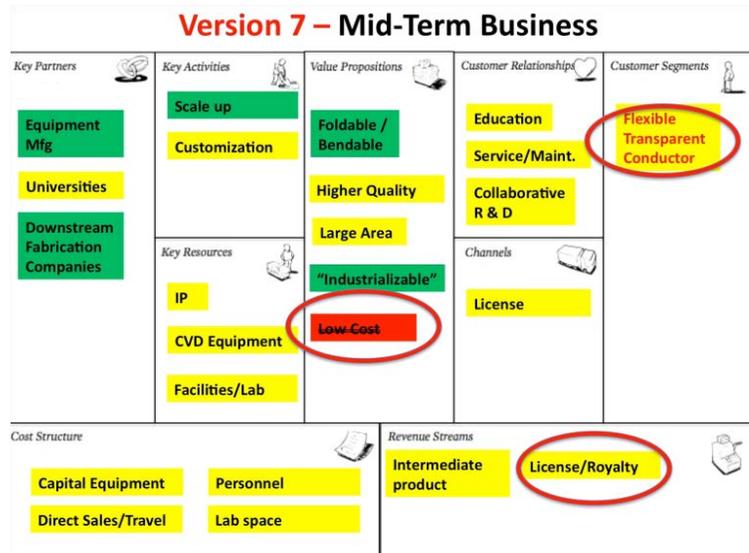
When Teams draft their initial hypotheses, their canvas begins to fill up, like this:



But the canvas is more than a static snapshot of the business at a moment in time. Through Customer Development—and this class—it is extended and used as a scorecard for tracking the progress of the search for a business model.

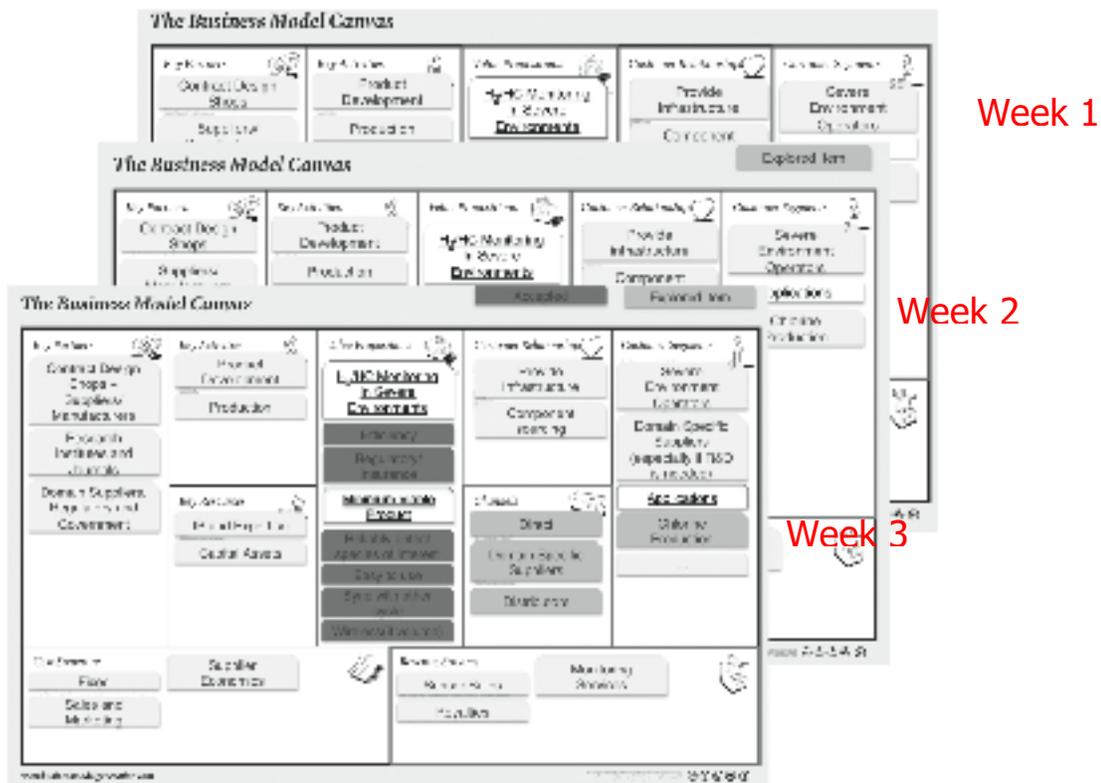
Every week the Teams update their canvas to reflect any pivots or iterations, highlighting in red the changes from the last week.

Then, after the Team agrees to the business model changes, they integrate them into what becomes the new canvas for the week (the accepted changes go from red to black). During the next week any new changes are again shown in red. The process repeats each week, with new changes showing up in red.



By the end of the class, each Team will have at least eight canvases. When clicked through one at a time, they show something never captured before: the entrepreneurial process in motion.

## The Business Model Canvas as a Weekly Scorecard

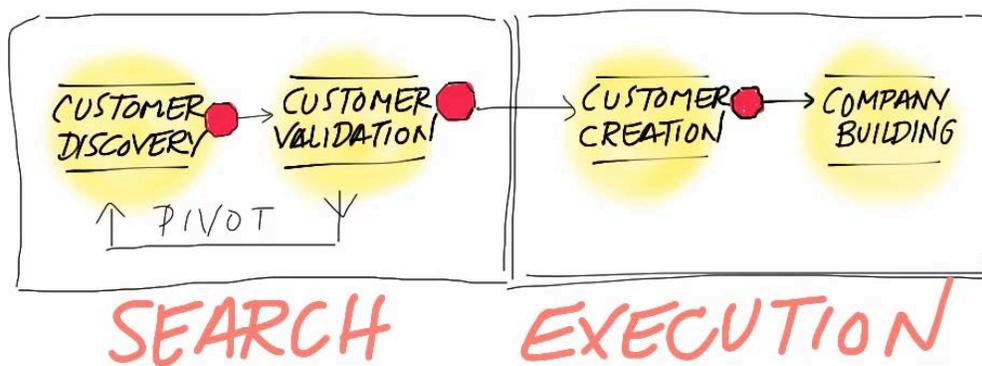


# 9 Customer Development

The Business Model Canvas is, at the end of the day, a tool for brainstorming hypotheses without a formal way of testing them.

The *process* used to organize and implement the search for the business model is *Customer Development*.

The Customer Development model breaks out the customer-related activities into four steps. The first two steps of the process outline the “search” for the business model. Steps three and four “execute” the business model that’s been developed, tested, and proven in steps one and two.



The Lean LaunchPad® class focuses on the two search steps.

- *Customer Discovery* first captures the founders’ vision and turns it into a series of business model hypotheses. Then it develops a plan to test customer reactions to those hypotheses and turn them into facts.
- *Customer validation* tests whether the resulting business model is repeatable and scalable. If not, you return to Customer Discovery.

# 10 Detailed Class Curriculum

## Before the Teams Show Up in Class

<b>Learning Objectives</b>	<p>Teams should come to class able to answer the following questions:</p> <ul style="list-style-type: none"> <li>• What’s the difference between search and execution?</li> <li>• What is a business model versus business plan?</li> <li>• What is the Business Model Canvas?</li> <li>• What are the 9 components of the Business Model Canvas?</li> <li>• What is a hypothesis?</li> <li>• What is Customer Development?</li> <li>• What are the key tenets of Customer Development?</li> </ul>
<b>Why?</b>	<p>These are the fundamental principles of the course. Having the Teams prep on their own time allows us to go into full-immersion on day one, first lecture.</p>
<b>How?</b>	<ul style="list-style-type: none"> <li>• Assign readings before the class starts. Inform Teams that knowing these concepts is required.</li> <li>• To test their knowledge, we have each Team prepare its first pass of its Business Model Canvas prior to the first class (see section 10 for description and figures).</li> <li>• Teams will present their canvas as the introduction to their cohort. But more importantly so that the Teaching Team can assess how adequately they prepared for the course.</li> </ul>
<b>Assignments for day 1 of the class</b>	<p>Read pages 14–51 [loc. 268-842] of <i>Business Model Generation; Definition of a Business Model</i></p> <p>Read pages 22–84 [19-83] and 195-199 [189-199] of <i>The Startup Owner’s Manual; The Customer Development Model; Prepare for Customer Contacts</i></p> <p>Giff Constable, “12 Tips for Early Customer Development Interviews”  <a href="http://giffconstable.com/2010/07/12-tips-for-early-customer-development-interviews/">http://giffconstable.com/2010/07/12-tips-for-early-customer-development-interviews/</a></p> <p>Watch Introduction to BMC Part I and II (1.5 A &amp; 1.5 B) Value Proposition, Customer Segments and all of the Customer Discovery Best Practice videos: at <a href="https://www.launchpadcentral.com;">https://www.launchpadcentral.com;</a></p> <p>Review presentations from previous I-Corps Teams to assist you in your own preparation: <a href="http://venturewell.org/i-corps/team-materials/">http://venturewell.org/i-corps/team-materials/</a> and <a href="http://www.slideshare.net/sblank/tagged/i-corps">http://www.slideshare.net/sblank/tagged/i-corps</a> (note also the number of customer contacts each Team made over the course)</p> <p>See also <a href="http://steveblank.com/category/lean-launchpad/">http://steveblank.com/category/lean-launchpad/</a> for background and</p>

blog posts on the Lean LaunchPad method and classes.

<b>Team Assignment for day 1</b>	<ul style="list-style-type: none"><li>• Prepare your Team’s business model using the Business Model Canvas</li><li>• Come prepared with a customer contact/visit list that will last 3 days</li></ul>
<b>Assignment Objective</b>	<ul style="list-style-type: none"><li>• We don’t expect Teams to get the canvas right. We just want them thinking hard about what it means. They will be living with the canvas for the next few months.</li><li>• Get the Teams accustomed to a cover-slide that provides us with a 1-page summary of who they are, number of customers talked to that week, what their Team does.</li></ul>
<b>Presentation Guidelines</b>	Prepare a 2-slide presentation to present your Team to the cohort: Slide 1: Title Slide Slide 2: Business Model Canvas See below for the presentation format

# Team Cover Slide for Weekly Presentations

*fluid  
synchrony*

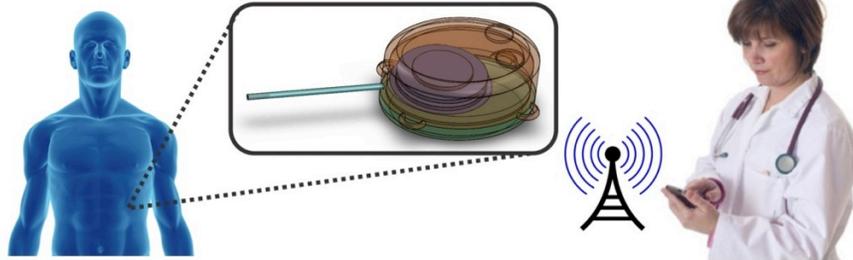
Team Name



63

Team Number

University



Number of  
Customers this  
Week

0

TOTAL 0

Number of customers  
talked to this week.  
Total number to date

What your team does  
(2 lines or less )

implantable drug infusion pumps  
with remote physician control

Team Members and Roles



Yis Meng  
(PI)



Christian Gutierrez  
(EL)



Tuan Hoang  
(FE)



Carol Christopher  
(IM)

**TEAM NAME HERE**

**FILL OUT ALL 9 BOXES OF THE CANVAS IN ORDER 1 THUR 9**

<p>Key Partners  <b>7</b></p> <p>Who are our Key Partners?</p>	<p>Key Activities  <b>5</b></p> <p>What Key Activities do our Value Propositions require?</p>	<p>Value Propositions  <b>1</b></p> <p>Which one of our customer's <i>problems</i> are we helping to solve? or Which customer <i>needs</i> are we satisfying?</p> <p>What is the specific product/service?</p> <p>What are the <i>features</i> that match customer needs?</p>	<p>Customer Relationships  <b>4</b></p> <p>How will we Get, Keep and Grow customers?</p>	<p>Customer Segments  <b>2</b></p> <p>For who are we solving a problem or fulfilling a need?</p> <p>Who are the customers?</p> <p>Does the value proposition match their needs?</p> <p>Is this a single-sided or multi-sided market?</p>
<p>Key Resources  <b>6</b></p> <p>What Key Resources (suppliers, etc.) do our Value Propositions require?</p>		<p>Channels  <b>3</b></p> <p>Through which Channels do our Customer Segments want to be reached?</p>		
<p>Cost Structure  <b>9</b></p> <p>What are the most important costs in our business model?</p>		<p>Revenue Streams  <b>8</b></p> <p>What is the revenue model? What are the pricing tactics? For what value are our customers willing to pay?</p>		

## Class 1: Intro & Business Models and Customer Development

### Summary:

- In Person Lecture 0: Class Introduction
- 1<sup>st</sup> Team Presentation based on Pre-class reading
- In Person Lecture 1: Business Models and Customer Development
- Training on Innovation Within and Customer Discovery
- Panel on “How to Succeed in I-Corps”
- Mentor session delivered by NSF

<b>Team Presentations &amp; Instructor Critiques Teaching Objective</b>	<ul style="list-style-type: none"> <li>• Assess each Team’s level of preparation and understanding.</li> <li>• Introduce the Business Model Canvas development principles.</li> <li>• “Shock and Awe” immersion in the “present/critique” teaching method.</li> <li>• Fast-paced, in-depth instructor critique and analysis of each Team’s initial business models is critical during this session to emphasize the level of preparation necessary by the Teams.</li> <li>• Have Teams understand that there is no such thing as “spare time” and they need to be out of the building talking to customers.</li> </ul>
<b>Why?</b>	<p>These are the fundamental principles of the course.</p> <ul style="list-style-type: none"> <li>• The format of all the classes will be:             <ul style="list-style-type: none"> <li>○ Teams present in front of their peers</li> <li>○ Teaching Team critiques each Team</li> <li>○ Instructors lecture on a component of the Business Model Canvas</li> </ul> </li> <li>• Having the Teams present on day one gives them full-immersion on day one, first lecture.</li> <li>• It also gives the Teaching Team the ability to provide remedial help for any Team after the first day of class             <ul style="list-style-type: none"> <li>○ In almost every class, one or two need coaching</li> </ul> </li> </ul>
<b>How?</b>	<p>Have Teams start by presenting their Business Model Canvases as their introduction to the class</p> <ol style="list-style-type: none"> <li>1. Have the Teaching Team immediately start offering critiques of the models and Team members. An interactive dialogue is encouraged</li> <li>2. These first critiques should focus on value prop, customers, channels, customer relations and revenue model.             <ol style="list-style-type: none"> <li>a. They’re usually wrong.</li> <li>b. Don’t go deep on one Team. It’s the sum of the comments across the Teams that is important.</li> <li>c. When you see a common error, announce, “This is a big idea. It’s one you will all encounter.”</li> <li>d. Have Teaching Team &amp; TA start by grading and offering first impressions of each Team’s business model.</li> <li>e. Have the participants provide feedback and input for their peers using Innovation Within.</li> </ol> </li> </ol>

<p><b>Common Team errors on their 1<sup>st</sup> presentation</b></p>	<p>3. Have Teaching Team present lectures 1-3 face-to-face to get command of the class (lectures 4-8 are recorded).</p> <ol style="list-style-type: none"> <li>1. Business Model ignorance</li> <li>2. Not understanding the difference between a value prop and features</li> <li>3. Not understanding any detail about their customers</li> <li>4. No understanding of a channel</li> <li>5. Fantasy revenue model</li> <li>6. Business Model Canvas looks like a business plan</li> <li>7. Thinking that they're in the class to "execute" their plan, not search for one</li> </ol>
<p><b>Lecture Learning Objectives</b></p>	<ul style="list-style-type: none"> <li>• Start with Lecture 0, Introduction to the class and Teaching Team</li> <li>• Next have the Teams present their Business Model Canvases</li> <li>• Finish with Lecture 1, Business Models/Customer Development</li> <li>• Teams will understand the level of hypotheses testing their business model will require</li> </ul> <p>Lecture slides can be found in the assigned Dropbox folder for the course (Instructors can access templates at <a href="http://venturewell.org/i-corps/newfaculty/">http://venturewell.org/i-corps/newfaculty/</a>)</p> <p><b>Teams should understand the concepts of:</b></p> <ul style="list-style-type: none"> <li>• 9 parts of a Business Model</li> <li>• Hypotheses versus facts</li> <li>• Getting out of the building</li> <li>• Web/Mobile versus Physical</li> <li>• Problem/Solution</li> <li>• Product/Market Fit</li> <li>• Hypotheses/Experiment design/Test/Insight</li> <li>• Iteration versus Pivot</li> </ul> <p>Focus on the right half of the canvas</p> <p>Teams should understand the relationship between canvas components:</p> <ul style="list-style-type: none"> <li>• Value proposition/customer segments – product/market fit</li> <li>• Customer relationships: get/keep/grow</li> <li>• Revenue/costs – making money</li> </ul> <ul style="list-style-type: none"> <li>• Many startups spend years attacking a small market. Having them think about size of the opportunity early helps them keep asking, "How big can this really be? Is it worth doing?"</li> <li>• See key lecture concept diagrams below.</li> </ul>

**Lecture 0:  
Class  
Introduction**

Introduce the Teaching Team. Key concepts:

1. Start by saying they are the domain experts in their fields. We will not be questioning their expertise.
2. But we are the domain experts in building companies. We have a model that works, is intensive and will make all of you, including the PIs, feel like you're back in grad school. It's nothing personal, but we have minimal time to turn you into entrepreneurs.

Key Points

- The class is all about "getting out of the building"
- The program is intensive and fast-paced
- The importance of actively grading their peers
- Your technology is ONE of the many critical pieces necessary to build a company and is part of the value proposition – customers do not care about your technology, they are trying to solve a problem

Difference in Customer Development between web/mobile vs. physical channels

**Lecture 1:  
Business Model  
Canvas &  
Customer  
Development**

- Intro of the Business Model Canvas and Customer Development
- Definition of hypotheses
- Definition of minimum feature set
- Description of experiments
- Definition of "getting out of the building"
- Definition of market size
- How do you determine whether a business model is worth doing?
- In Part 3 of the lecture, pick any one I-Corps™ final Team presentation you feel most comfortable with from <http://venturewell.org/i-corps/team-materials/>

**Reading for  
tomorrow**

- *BMG*, pp. 86-111, 135-145
- *SOM*, pp. 51-84, market size, value proposition and MVP, 188-199 getting out of the building, 457-459 market type
- What's a Startup? First Principles: <http://steveblank.com/2010/01/25/whats-a-startup-first-principles>
- Make No Little Plans – Defining the Scalable Startup: <http://steveblank.com/2010/01/04/make-no-little-plans---defining-the-scalable-startup/>
- A Startup is Not a Smaller Version of a Large Company: <http://steveblank.com/2010/01/14/a-startup-is-not-a-smaller-version-of-a-large-company/>
- 12 Tips for Early Customer Development Interviews: <http://giffconstable.com/2010/07/12-tips-for-early-customer-development-interviews>

## Assignment for tomorrow

- Presentation
  - Identify your market size
  - Identify your type of business (IP/licensing/startup/unknown)
  - Propose experiments to test your value proposition, customer segment, channel and revenue model of your business model
  - What constitutes a pass/fail signal for each test?
- Talk to at least 5 potential customers
- Post first Customer Discovery narratives

## Tomorrow's Presentation Guidelines

**Slide 1:** Cover slide (Team member names, Team name, Team number, your business thesis (who is my customer, what is my product, why will they buy it) AND number of customer interviews completed since you last presented.

**Slide 2-n** What did you learn about your value proposition from talking to your first customers?

*Hypothesis:* Here's What We Thought

*Experiments:* So Here's What We Did

*Results:* So Here's What We Found

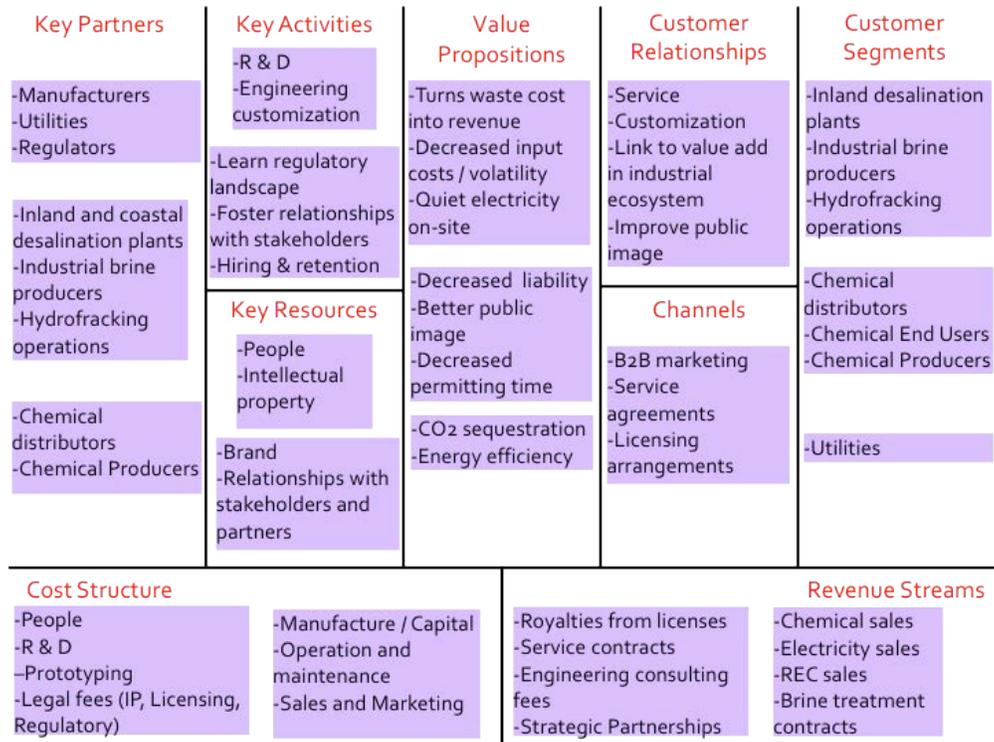
*Iterate:* So Here's What We Are Going to Do Next

**Slide 3:** Current business model canvas with any changes marked.

**Slide 4:** Tell us about your Market size (TAM/SAM/Target)

**Slide 5:** What type of path will you take to commercialization? (IP/licensing/startup/unknown)

**Slide 6:** What are your proposed experiments to test customer segment, value proposition, channel and revenue model of the hypotheses: What constitutes a pass/fail signal for each test (e.g. at what point would you say that your hypotheses wasn't even close to correct)?



**Typical Class 1 Student Business Model Canvas – a business plan in small type**

## Class 1 - 3: Presentation Agenda and Teaching Assistant Activities

### Team Presentation Agenda for Classes 1 - 3

**For Class 1** all Teams will present for 3 minutes in the same room.

**For Class 2** Teams will spilt into two groups and present in two different rooms.

**For Class 3** Teams will spilt into three groups and present in three different rooms.

Therefore at least three instructors and three adjunct faculty are needed for class 3.

### Teaching Assistant Activities for Classes 1 - 3

***See the TA Guide in the Node Handbook for a comprehensive list of TA responsibilities.***

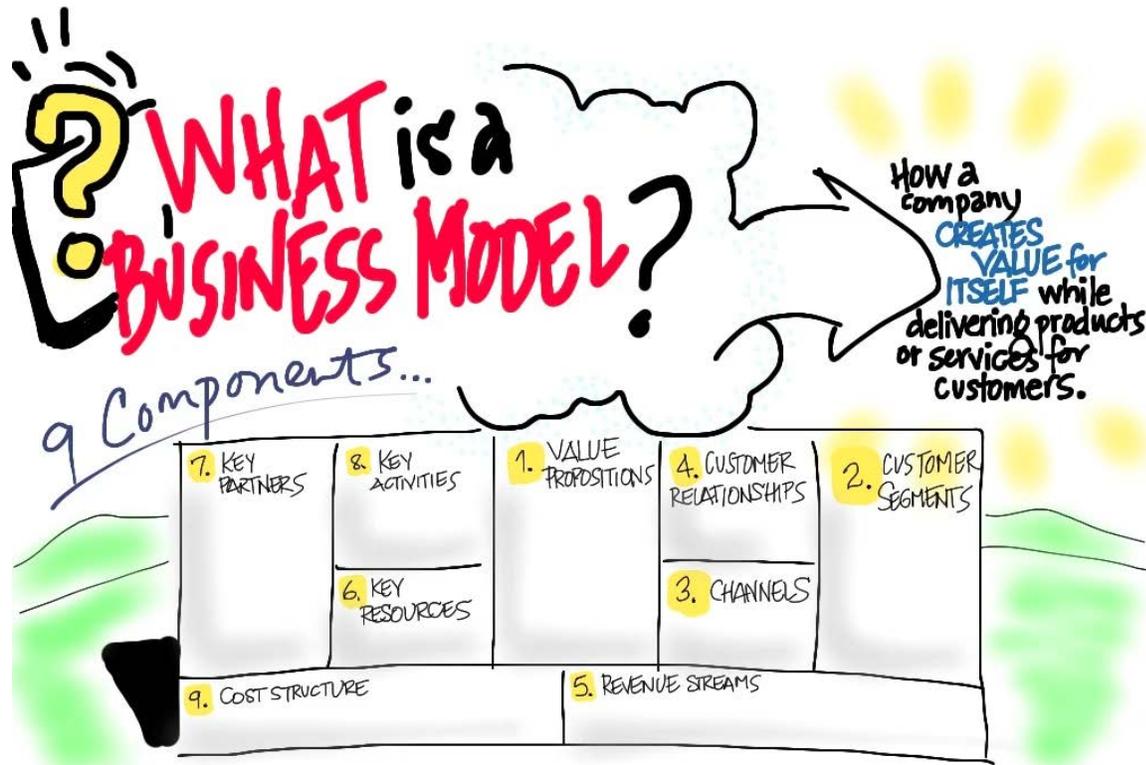
#### **Before Each Class**

- Communicate with Teams:
  - Topic to be addressed for class
  - Presentation Assignment
  - When presentations should be uploaded to Dropbox
  - Allotted time for presentation
  - Location of presentation
- 1. Preflight logistics – projectors, screens, Wi-Fi, break rooms, etc.
- 2. Collect student slides beforehand so no individual computer setup is necessary.
  - Then load them on a single presentation computer
  - TA to keep the clock on Team presentation time – announce 1 minute to go
- 2. Prepare the instructors and adjuncts
  - Convey room assignments
  - Update and share Instructor Grading Sheet
- 3. TA should capture the verbal Teaching Team critiques in a Key Learnings Google Doc – this should be shared with all the Teams
- This should be repeated for all classes

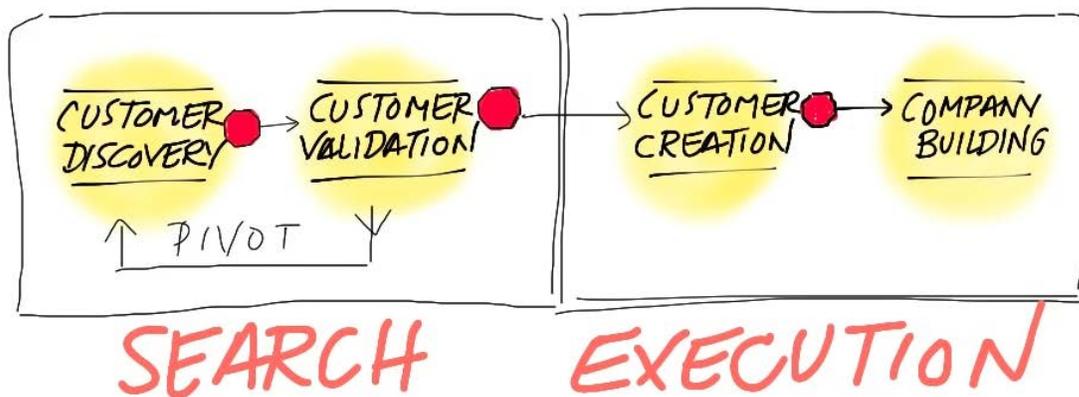
#### **During Each Class**

- Time all presentations
- Give Teams 3 and 1 minute warnings of time expiring

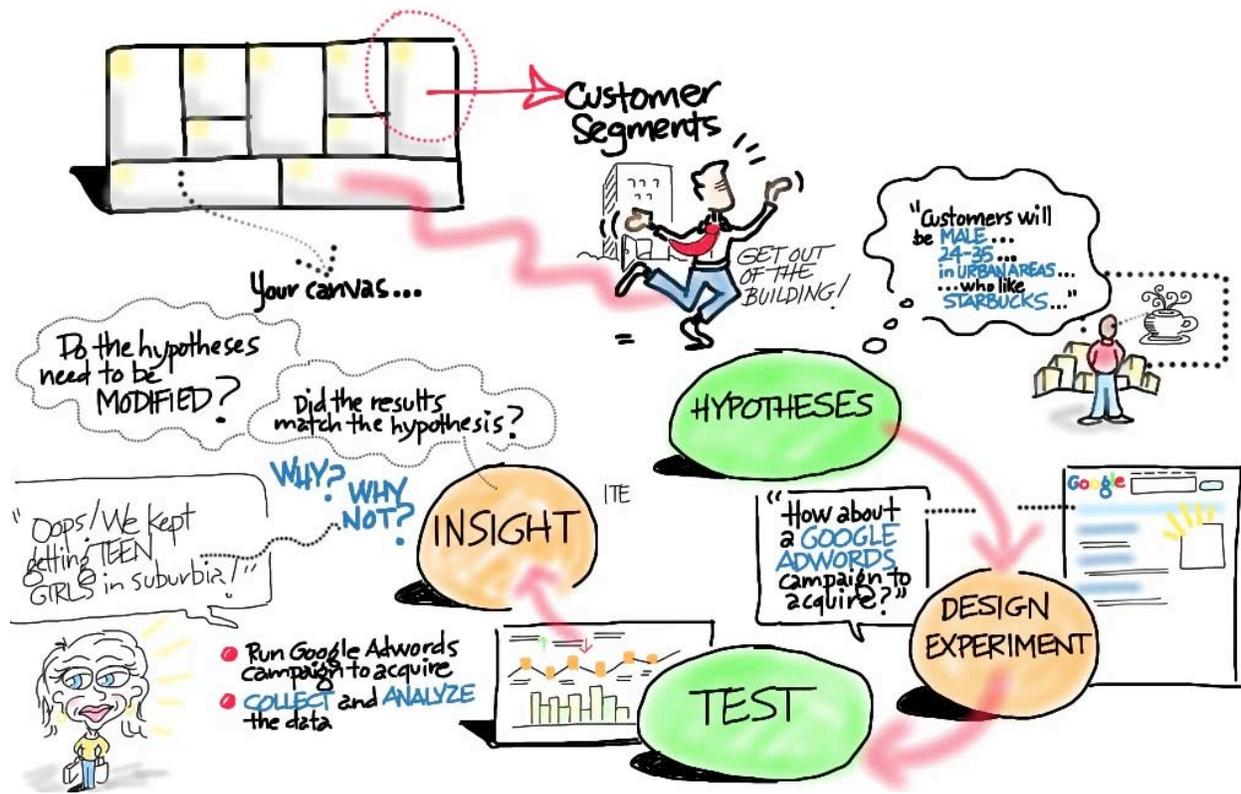
## Lecture 1: Key concept diagrams



**Ensure Teams understand all the parts of the Business Model Canvas**



**Ensure Teams understand the Four Steps of Customer Development**



**Ensure Teams understand the Hypotheses>Design>Test>Insight Loop**

## Class 2: Value Proposition

### Summary:

- Team presentation based on Business Model Canvas and Customer Development lecture
- In Person Lecture 2: Value Proposition

<p><b>Team Presentations &amp; Instructor Critiques Teaching Objectives</b></p>	<ul style="list-style-type: none"> <li>• Set expectations for:             <ul style="list-style-type: none"> <li>○ Customer Discovery: quantity, speed and insight</li> <li>○ Annotation of the Business Model Canvas updates</li> <li>○ Their Customer Discovery narrative on Innovation Within</li> </ul> </li> <li>• Remind them:             <ul style="list-style-type: none"> <li>○ Customer contacts are not optional. They need to be continuous</li> <li>○ Hypotheses need to be turned into facts. There are no facts inside their university/lab</li> <li>○ This class is not about the execution of their original idea</li> </ul> </li> </ul>
<p><b>How?</b></p>	<ul style="list-style-type: none"> <li>• The Teams have spoken to <u>at least X customers</u> (5 is the target; 2-3 is often a minimum in order to present) after class yesterday. They were supposed to set up meetings before they arrived.</li> <li>• Hang a Team publically who did not call on anyone. (There's always one.)             <ul style="list-style-type: none"> <li>• Stop their presentation. Have them leave to make phone calls.</li> <li>• Tell them if they have something to add before the rest of the presentations are over they can present.</li> <li>• Make the point clearly that this is what the class is about.</li> </ul> </li> <li>• In today's presentations, Teams explain what they learned in those calls             <ul style="list-style-type: none"> <li>○ Have them annotate the canvas with new learning each week.</li> </ul> </li> <li>• Make comments to show you've read their Customer Discovery narrative &amp; it's critical to update</li> <li>• Make sure they are articulating their hypotheses of what they expected to learn versus what they found. Without that it's just a bunch of random customer interviews             <ul style="list-style-type: none"> <li>○ This "hypothesis&gt;experiment&gt;data&gt;insight" loop is the core of the process and class</li> </ul> </li> </ul>
<p><b>Common Team errors on their 2<sup>nd</sup> presentation</b></p>	<ul style="list-style-type: none"> <li>• Not enough customer calls</li> <li>• Vague data from the calls</li> <li>• Little to no insight from the data</li> <li>• No clue about market size or overly optimistic</li> <li>• Not clear whether they're IP/licensing/startup/unknown</li> <li>• Did not articulate experiments to test their hypotheses</li> <li>• Did not articulate pass/fail tests for each hypothesis</li> </ul>

<p><b>Lecture 2</b> <b>Value</b> <b>Proposition</b> <b>Learning</b> <b>Objectives</b></p>	<p><b>Teams should understand:</b></p> <ul style="list-style-type: none"> <li>• The smartest Teams believe “it’s all about my <i>invention</i>”</li> <li>• Your goal is to teach them “it’s all about the <i>business model</i>”</li> <li>• The majority of product features are never used by customers</li> <li>• The MVP and Customer Development eliminate waste in time/cash</li> <li>• Engineers love to add features</li> <li>• The goal of the MVP is to find the <i>minimum</i> feature set</li> <li>• The difference in an MVP for a physical product versus the Low and High Fidelity MVP’s for a web/mobile product</li> <li>• Explain why Customer Development can’t be done with Waterfall engineering but needs an Agile Development process</li> <li>• See key lecture concept diagrams below.</li> </ul>
<p><b>Lecture 2</b> <b>Value</b> <b>Proposition</b></p>	<ul style="list-style-type: none"> <li>• Defining your product or service</li> <li>• How does it differ from an idea</li> <li>• The role of pain killers, gain creators, problems/needs</li> <li>• Identifying the competition and how your customers view these competitive offerings</li> <li>• What’s the minimum viable product?</li> <li>• What’s the market type?</li> <li>• Insight into market dynamics or technological shift that makes this a fresh opportunity?</li> </ul> <p><b>Instructors should emphasize:</b></p> <ul style="list-style-type: none"> <li>• The difference between value proposition and feature sets.</li> <li>• The goal is to find the <i>minimum</i> viable product.</li> <li>• That value proposition and customers are integrated = product/market fit.</li> <li>• The value of annotating the Business Model Canvas.</li> <li>• The need to be open to changing initial Business Model Canvas hypotheses.</li> </ul>
<p><b>Reading for tomorrow</b></p>	<ul style="list-style-type: none"> <li>• <i>BMG</i> pp. 146-150, 161-168 and 200-211</li> <li>• <i>SOM</i> pp. 85-97, 112-125, 203-217 problem understanding, 218-221 gain customer understanding, 260-266 product/market fit</li> </ul>

**Assignment for tomorrow**

- Presentation
  - What are the Pain Relievers, Gain Creators and key features?
  - What is the resulting MVP?
  - Propose experiments to test your value proposition
  - What constitutes a pass/fail signal?
- Talk to at least 5 potential customers
- Post discovery narratives to Innovation Within

**Presentation Guidelines**

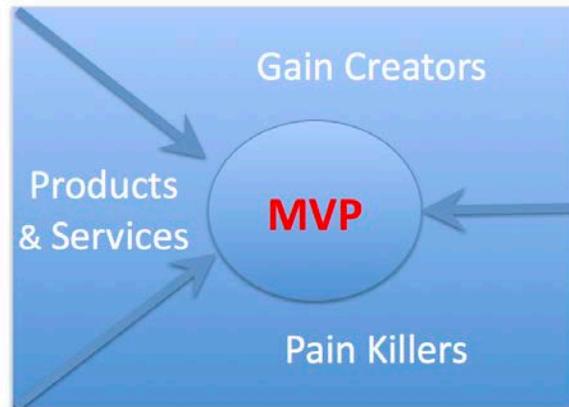
Slide 1: Cover slide (see syllabus for details)

Slide 2-n What did you learn about your value proposition from talking to your first customers?

- Hypothesis: Here's What we Thought
- Experiments: So Here's What we Did
- Results: So Here's What we Found
- Iterate: So Here's What we Are Going to Do Next

Final Slide: Current Business Model Canvas with any changes marked

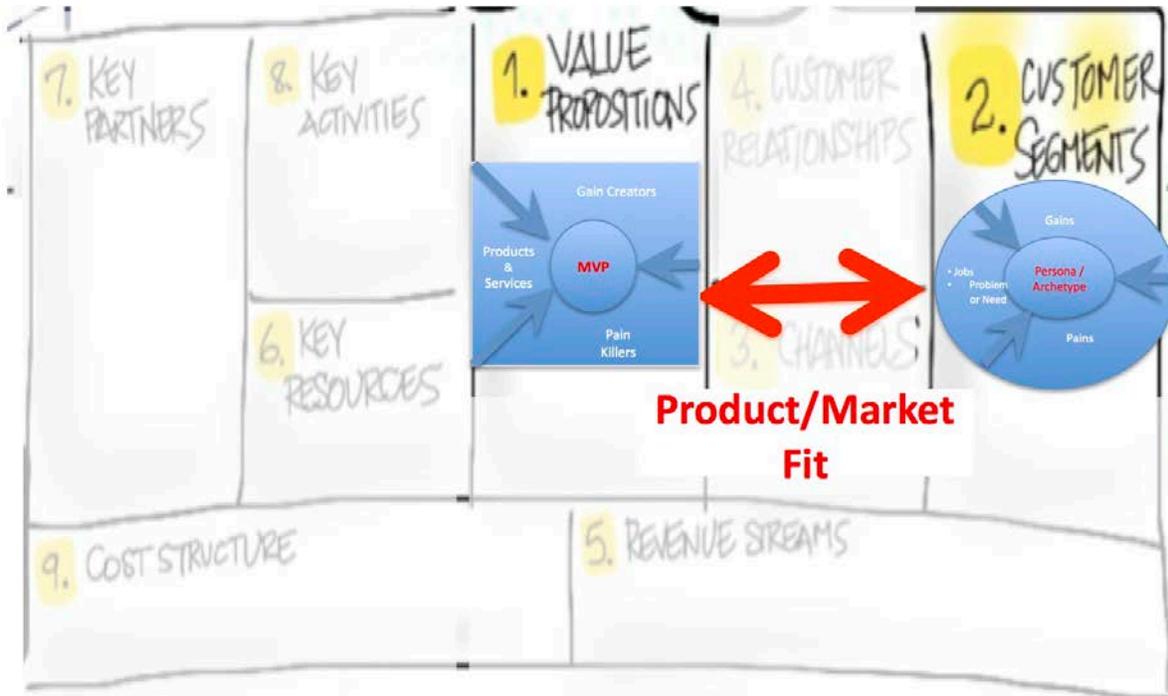
## Lecture 2: Key concept diagrams



**Ensure Teams understand the 3 components of the Value Proposition**



**Casually introduce the 3 components of the Customer Segment**



**Ensure that Teams understand that product/market fit = Value Proposition + Customer Segment**

### Hypothesis

- Existing prepaid cards add value to a subset of the population
  - Underpenetrated opportunity
  - We can find a better channel to reach this customer segment and convert them
- Existing prepaid cards are flawed *and* can be improved
  - We can do something clever to shake up the fee structure and/or build in a new feature (e.g., rewards)
- Solution = prepaid + loyalty card
  - Distributed at retail POS

### Test

- Interviewed supermarket executives, payment processors, private label card manufacturers, prepaid program managers, loyalty consultants, and data analytic firms



### Results

- User acquisition is critical → user engagement is everything
- Underpenetrated opportunity because people:
  - Don't understand the value of the card
  - Don't know about the card
  - Haven't bought one yet
- Potential customers are aware of and understand prepaid, but:
  - Hate the fees
  - Haven't bought one yet

**Ensure that Teams understand they have to articulate their hypotheses, design experiments, test and hopefully get insights**

## Class 3: Customer Segments

### Summary:

- Team Presentation based on Value Proposition Lecture
- In Person Lecture 3: Customer Segments
- Training on Online Class participation

<b>Team Presentations &amp; Instructor Critiques Teaching Objectives</b>	<ul style="list-style-type: none"> <li>• Continue the pace of discovery, customer calls, insights &amp; critiques</li> <li>• Make sure Teams continue to:             <ul style="list-style-type: none"> <li>◦ Annotate the Business Model Canvas with updates</li> <li>◦ Update their Customer Discovery narrative on Innovation Within</li> </ul> </li> <li>• Focus your main critique on their understanding of the value proposition             <ul style="list-style-type: none"> <li>◦ Acknowledge you've read their Customer Discovery narrative</li> </ul> </li> <li>• Comment on other egregious parts of the canvas as necessary</li> <li>• Before they leave, make sure you solve any apparent Team dysfunctions</li> </ul>
<b>How?</b>	<ul style="list-style-type: none"> <li>• Most Teams start with a value proposition equal to the feature set</li> <li>• Make sure they've articulated pain killers, gain creators, MVP</li> <li>• Use your critiques to drive them to understand what pains their value proposition is solving, what gains is it creating?             <ul style="list-style-type: none"> <li>◦ Which features will do that?</li> <li>◦ What is the MVP to prove the value proposition?</li> </ul> </li> <li>• Start emphasizing the importance of diagrams for each component of the business model</li> </ul>
<b>Common Team errors on their 3rd presentation</b>	<ul style="list-style-type: none"> <li>• Not enough customer calls</li> <li>• Vague data from the customer calls ("they like our features...")</li> <li>• Little to no insight from the data – "we called on 12 customers and here's what they said..."</li> <li>• Team thinks the purpose of the class is the execution of their idea versus testing their hypotheses</li> <li>• Still confused about the difference between a value proposition versus features</li> <li>• Confusing features with pain killers or gain creators (the Value Prop is not a spec sheet)</li> <li>• Did not articulate experiments to test their hypotheses</li> <li>• Did not articulate pass/fail tests for each hypothesis</li> </ul>

<p><b>Lecture 3 Customer Segments Learning Objectives</b></p>	<p><b>Teams should understand:</b></p> <ul style="list-style-type: none"> <li>• Value proposition + customer segment = product/market fit</li> <li>• Customer pains and gains</li> <li>• Customer “Jobs to be done”</li> <li>• Customer archetypes/personas and why they are useful</li> <li>• Problem versus Needs</li> <li>• The difference between users, influencers, recommenders, decision makers, economic buyers and saboteurs</li> <li>• Market Type – explain the difference between Existing, re-segmented, New and Clone markets <ul style="list-style-type: none"> <li>- Explain why it matters to know which one you are in</li> </ul> </li> <li>• The difference between single- and multi-sided markets</li> <li>• Following the lecture, slides will be posted to the assigned Dropbox folder for the course (Instructors can access templates at <a href="http://venturewell.org/i-corps/newfaculty/">http://venturewell.org/i-corps/newfaculty/</a>)</li> <li>• See key lecture concept diagrams below.</li> </ul>
<p><b>Why?</b></p>	<ul style="list-style-type: none"> <li>• Scientists and engineers usually have a vague sense of who will buy</li> <li>• Get them started with talking to their peers, others at conferences, etc.</li> <li>• Remind them that customers are the critical difference between an idea and a successful company</li> <li>• Getting out of the building is about first testing their value proposition versus customer hypotheses. At first it’s hard and awkward.</li> <li>• Market Type influences how much customers can teach them</li> </ul>
<p><b>Lecture 3 Customer Segments</b></p>	<p><b>Instructors should emphasize:</b></p> <ul style="list-style-type: none"> <li>• Customers need to match their value proposition</li> <li>• Customer knowledge leads to an archetype/persona</li> <li>• In a multi-sided market, each side of a market has its own value proposition, customer segment, revenue model and may have its own channel and customer relationships</li> <li>• Introduce the Petal Diagram</li> </ul>
<p><b>Reading for next week</b></p>	<ul style="list-style-type: none"> <li>• BMG pp. 127-133</li> <li>• SOM pp. 98 – 111, and 332-343, 406-412-Distribution Channels</li> </ul>

**Assignment for  
next week**

**Lecture**

- Watch Lecture 4 Distribution Channels – take the quiz
  - Available through Innovation Within

**Presentation**

- What are the Pains, Gains and Jobs to be done?
- What is the resulting MVP?
- Draw a diagram of the customer workflow
- Draw a diagram of your customer archetypes
- Create a petal diagram of your ecosystem
- How do they solve this problem(s) today? Does your value proposition solve it? How?
- What was it that made customers interested? excited?
- If your customer is part of a company, who is the decision maker, how large is their budget, what are they spending it on today, how are they individually evaluated within that organization, and how will this buying decision be made?
- Talk to ~15 potential customers
- Post discovery narratives

**Presentation  
Guidelines**

Slide 1: Cover slide (see syllabus for details)

Slide 2-n What did you learn about your customer segments from talking to your customers?

- Hypothesis: Here's What we Thought
- Experiments: So Here's What we Did
- Results: So Here's What we Found
- Iterate: So Here's What we Are Going to Do Next

Final Slide: Current Business Model Canvas with any changes marked

### Lecture 3: Key concept diagrams

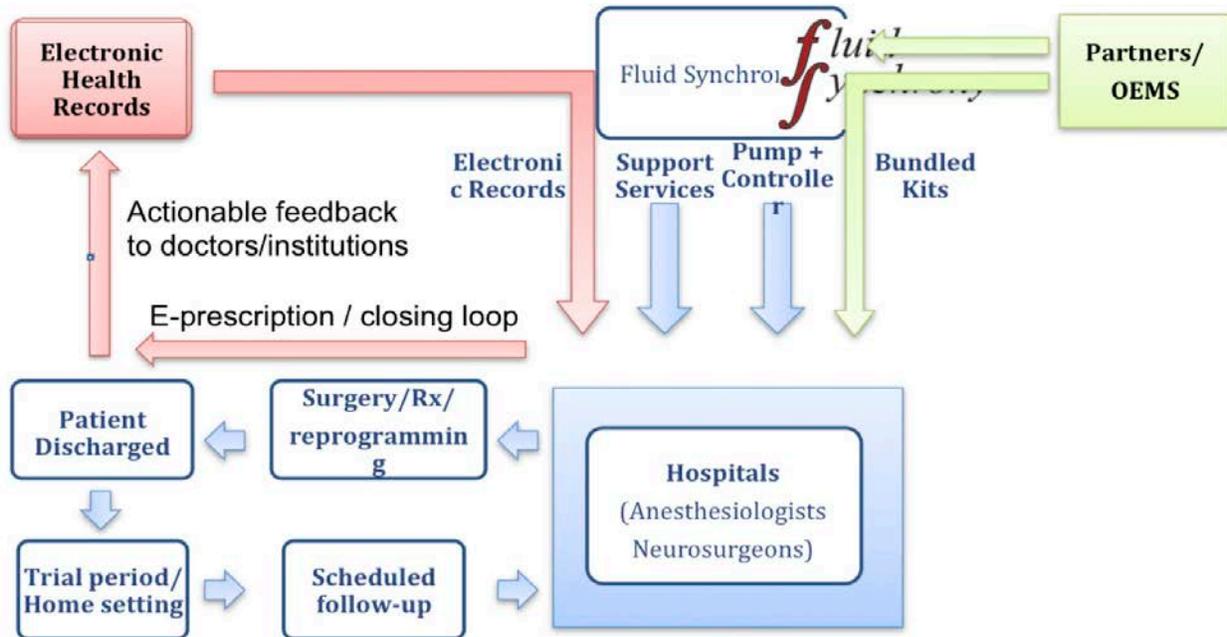


**Ensure Teams understand the 3 components of The Customer Segment**



**Ensure Teams understand the 4 Market Types**

# What We Found: Patient Care Flow



**Example of a Customer Flow Diagram**

**Customer Segment:** Professional-class consumers shopping frequently online

## Pat the Professional

Upwardly mobile professional (some Grad Students)  
 Salary: \$40,000 – 150,000/year  
 Finance, Consulting, PR, Marketing  
 Follows fashion/technology trends  
 Spends \$1-15K on discretionary items online  
 Purchased online in last 30 days

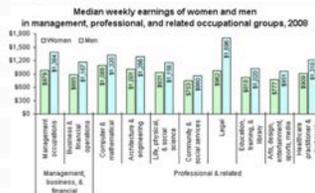
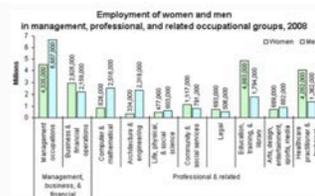
- Demographics**
- Male/female, aged 18-35
  - Minimum bachelors from expensive school
- Traits:**
- Ideas from blogs & shopping websites
  - Values celebrity trends & friends' opinions
  - Wants high ticket items at lowest price
  - Event-driven shopper—new release or sale
- Motivation**
- Craves new products
  - Hates tedious work
  - Identifies as influencer among friends
  - Fears being cheated online

- Behavior**
- Spends 5 hour+ monthly hearing about products
  - Shares online and in person about products he loves
- Budget**
- \$2-10K+/year in discretionary online purchases

"The XXX is awesome, I really want one. I know I just bought the YYY, but it's probably time to upgrade."

## ~5.9M "Pat the Professionals" in US

Drawn from top 1/3 of 17.8M frequent online shoppers  
 17.8M based on 40.2M Professionals (2008 Census) \* 0.762 US Internet Penetration (Nielsen 2010Q1) \* 0.58 consumers shopping online in last month (Nielsen 2010Q1)



Source: US Bureau of Labor Statistics



### Online Recommendation Market Opportunity (conservative strawman #s)

Assuming 10% share, 5% affiliate fees

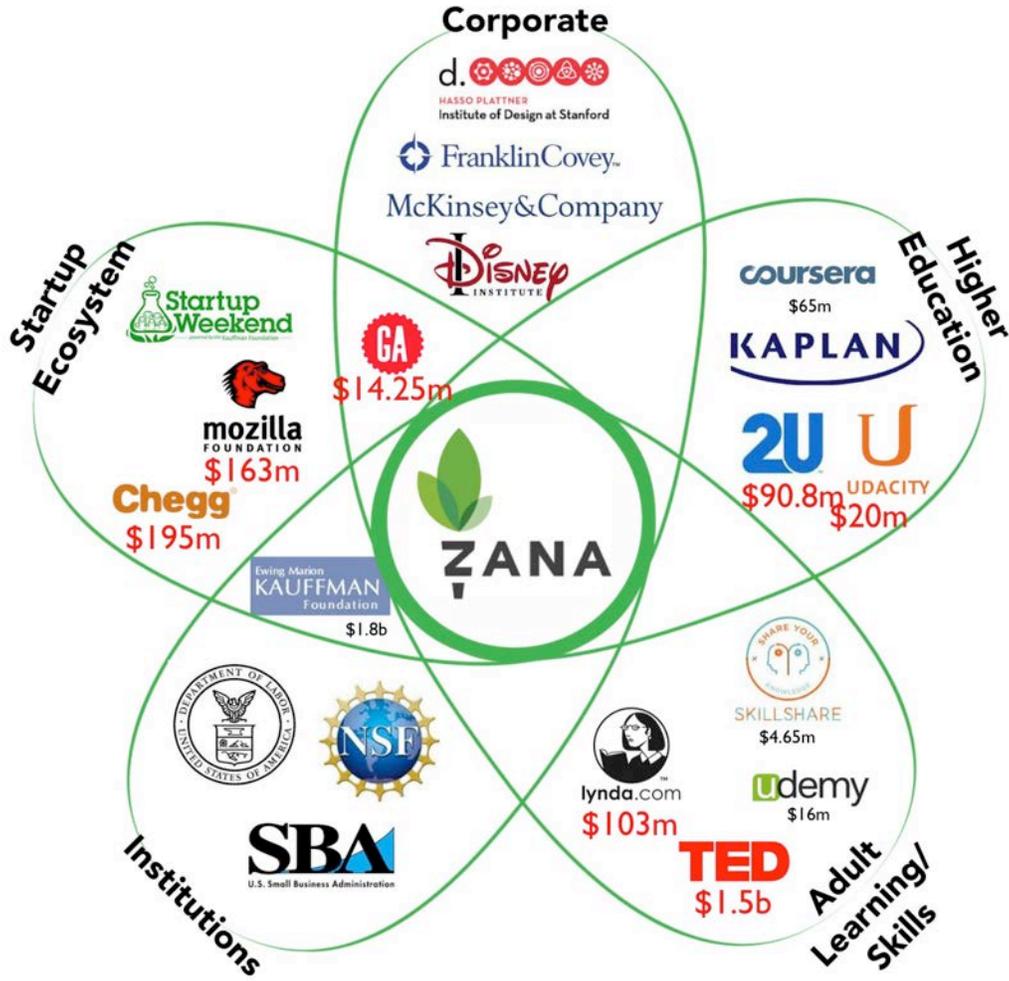
**Top Shoppers**  
 (~\$7B/year spend): ~\$35M/year

**Professional-class frequent shoppers**  
 (~\$1.8B/year): ~\$9M/year

**Other Professional-class shoppers**  
 (\$0.7B/year): ~\$3.5M/year

## Example of a Customer Archetype/Persona

## Example of a Petal Diagram of an Ecosystem:



## Class 4: Distribution Channels

### Summary

- Team Presentation based on Customer Segments Lecture
- Remote Lecture 4: Distribution Channels

<b>Team Presentations &amp; Instructor Critiques Teaching Objectives</b>	<ul style="list-style-type: none"> <li>• Continue the pace of discovery, customer calls, insights &amp; critiques</li> <li>• Make sure Teams continue to:             <ul style="list-style-type: none"> <li>○ Annotate the Business Model Canvas with updates</li> <li>○ Include diagrams of each part of the hypothesis</li> <li>○ Update their Customer Discovery narrative on Innovation Within</li> </ul> </li> <li>• Focus your main critique on their understanding of customer segments             <ul style="list-style-type: none"> <li>○ Acknowledge you've read their Customer Discovery narrative</li> </ul> </li> <li>• Comment on other egregious parts of the canvas as necessary</li> </ul>
<b>How?</b>	<ul style="list-style-type: none"> <li>• Most people usually think of customers as the users of the product             <ul style="list-style-type: none"> <li>○ Make sure they understand there might be multiple customer segments (users, payers, etc.)</li> </ul> </li> <li>• Make sure their presentation includes a customer archetype slide and a customer workflow diagram             <ol style="list-style-type: none"> <li>a. Ask them if they can draw a day in the life of customer. If not, tell them they don't know enough</li> </ol> </li> <li>• Use your critiques to drive them to understand what pains their customers have, what gains they are looking for and what jobs do they want done?             <ul style="list-style-type: none"> <li>○ Which features from the value prop will do that?</li> </ul> </li> <li>• Who specifically is (are) the archetype(s)</li> <li>• Give complements to Teams who drew archetypes and customer flow</li> <li>• Do not be polite to those who haven't. If you can't draw it you don't understand it.</li> </ul>
<b>Common Team errors on their 4th presentation</b>	<ul style="list-style-type: none"> <li>• Not enough customer calls</li> <li>• Vague data from the calls</li> <li>• PI appears to be doing all the customer calls</li> <li>• Mentors driving the Team to an early conclusion rather than learning</li> <li>• Little to no insight from the data</li> <li>• Most entrepreneurs start with a vague statement such as "customer segments are end users"</li> <li>• Did not articulate pass/fail tests for each hypothesis</li> </ul>

**This Lecture is pre-recorded. Teams need to watch it before class**

<p><b>Lecture 4 Distribution Channels Learning Objectives</b></p>	<p><b>Teams should understand:</b></p> <ul style="list-style-type: none"> <li>• Definition of a distribution channel             <ul style="list-style-type: none"> <li>◦ Direct, indirect and OEM</li> </ul> </li> <li>• Difference between physical and virtual channels</li> <li>• Types of physical and virtual channels</li> <li>• Distribution channel versus product complexity</li> <li>• Distribution Channel economics</li> <li>• See key lecture concept diagrams below.</li> </ul>
<p><b>Why?</b></p>	<ul style="list-style-type: none"> <li>• Scientists and engineers think of sales as a tactic a salesperson uses.</li> <li>• Most entrepreneurs confuse channels with customers.</li> <li>• They do not understand the impact a channel can have on its revenue streams.</li> <li>• The more complex the channel, the smaller the margins will be. There is a cost benefit analysis made when choosing channels.</li> <li>• Channels are a strategy. Discovering the right channel fit is an art.</li> </ul>
<p><b>Lecture 4 Distribution Channels</b></p>	<p><b>Instructors should emphasize:</b></p> <ul style="list-style-type: none"> <li>• Channels need to match their customer segments</li> <li>• Channels need to match the product (and support) complexity</li> <li>• Channel economics need to match revenue goals</li> <li>• Founders need to sell and close the first few orders to “prove” the channel</li> </ul>

<p><b>Reading for next week</b></p>	<ul style="list-style-type: none"> <li>• <i>SOM</i> pp. 126-168 customer relationships hypotheses, pp. 296-351 Get/Keep/Grow</li> </ul>
<p><b>Assignment for next week</b></p>	<p><b>Lecture</b></p> <ul style="list-style-type: none"> <li>• Watch Lecture 5 Customer Relationships – take the quiz Available through Innovation Within</li> </ul> <p><b>Presentation</b></p> <ul style="list-style-type: none"> <li>• What is the distribution channel? Are there alternatives?</li> <li>• Draw the channel diagram             <ul style="list-style-type: none"> <li>◦ Annotate it with the channel economics</li> </ul> </li> <li>• What were your hypotheses about who/what your channel would be? Did you learn anything different?</li> <li>• What was it that made channel partners interested? excited?</li> <li>• Did anything change about Value Proposition or Customer segment?</li> </ul>

<b>Presentation Guidelines</b>	<ul style="list-style-type: none"> <li>• Talk to ~15 potential customers and channel partners (Salesmen, OEM's distributors, etc.)</li> <li>• Post your discovery narratives on Innovation Within</li> </ul>
	<p>Slide 1: Cover slide (see syllabus for details)</p> <p>Slide 2-n What did you learn about your channel from talking to potential channel partners?</p> <ul style="list-style-type: none"> <li>○ Hypothesis: Here's What we Thought</li> <li>○ Experiments: So Here's What we Did</li> <li>○ Results: So Here's What we Found</li> <li>○ Iterate: So Here's What we Are Going to Do Next</li> </ul> <p>Final Slide: Current Business Model Canvas with any changes marked</p>

## Class 4 - 8: Presentation Agenda and Teaching Assistant Activities

<b>Team Presentation Agenda for Classes 4 - 8</b>	<ul style="list-style-type: none"> <li>• Teams will split into three groups of 7-9 Teams each and present in three different WebEx "classrooms."</li> <li>• Therefore at least three instructors are needed for classes 4-8</li> <li>• The Teams will be mixed and reassigned every two weeks, ensuring that the Teams get the feedback of multiple instructors and see variety in their peers' presentations. <ul style="list-style-type: none"> <li>○ We are consciously trading off consistency of instructor/Teams for diversity of opinions</li> </ul> </li> </ul>
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<b>Teaching Assistant Activities For Classes 4-8</b>	<p><b><i>See the TA Guide in the Node Handbook for a comprehensive list of TA responsibilities.</i></b></p> <p><b>Before the First Online Class</b></p> <ul style="list-style-type: none"> <li>• Ensure that all Teams have: <ul style="list-style-type: none"> <li>○ Tested the online WebEx software (during the kick-off training)</li> <li>○ Teams all have headsets (given during the kick-off)</li> <li>○ Gone online and tested their PowerPoint and audio with the TA (during the kick-off training)</li> <li>○ Can see and hear other Teams' slides</li> </ul> </li> <li>• The TA will organize the class into three groups <ul style="list-style-type: none"> <li>○ This information is programmed into Innovation Within</li> <li>○ Organize and email instructors and adjunct faculty with group assignments and instructions for logging in</li> <li>○ Organize and e-mail other WebEx hosts their group assignments and instructions</li> </ul> </li> </ul>
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- Update and distribute the Instructor Grading Sheet and maintain the Office Hours sign-up on Google docs.

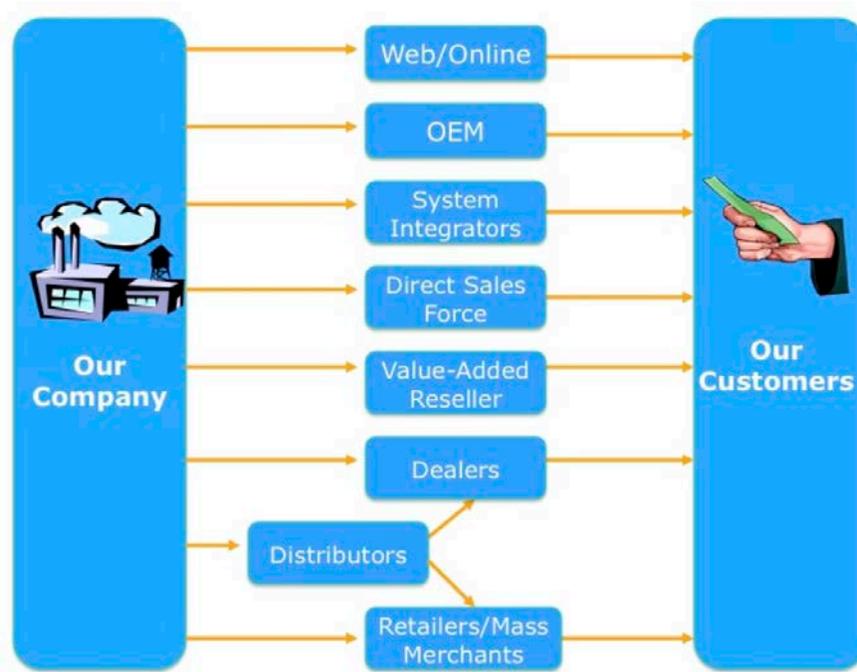
### **Before Each Online Class**

- Communicate with Teams:
  - Topic to be addressed for class
  - Presentation assignment
  - When presentations should be uploaded to Dropbox
  - Presentation order and group assignments
  - Allotted time for presentation
  - Link for presentation sessions
  - Link for lecture session
  - Reminder that all participants must use their provided headset
- Check video and audio on WebEx
- Take attendance and advise the Teaching Team, VentureWell and NSF of any absences or late arrivals
- Upload Team presentations and any lecture discussion slides to WebEx
- Make a reminder about using the Peer input feature on LPC

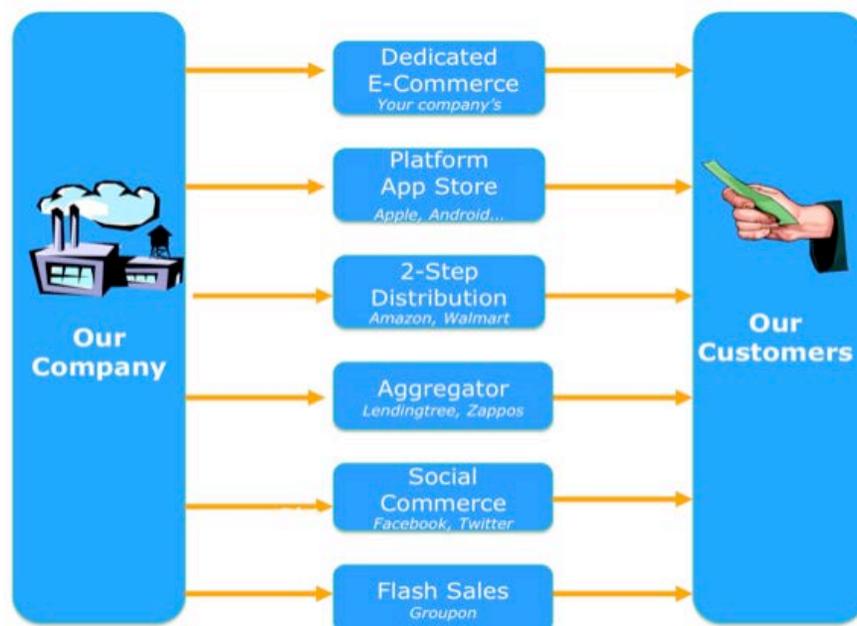
### **During Online Presentations**

- Time Team presentations
- Give Teams 3 and 1 minute warning
- Capture the verbal critiques from the Teaching Team

Lecture 4: Key concept diagrams



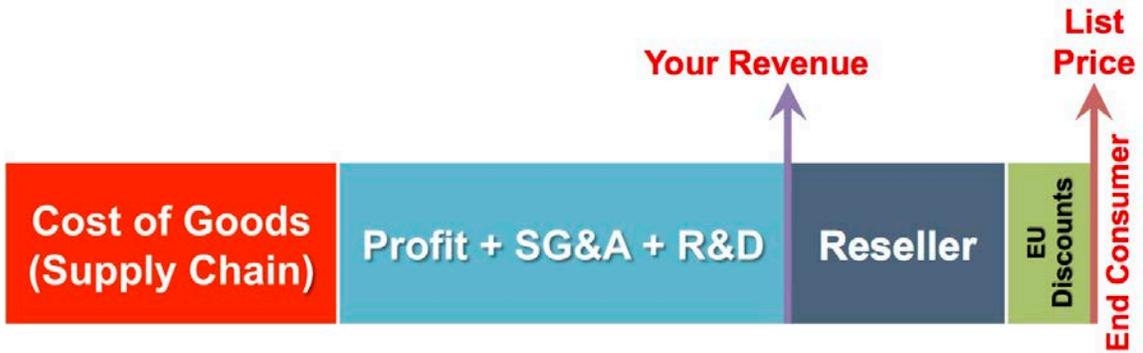
**Ensure Teams understand the Physical Distribution Channel alternatives**



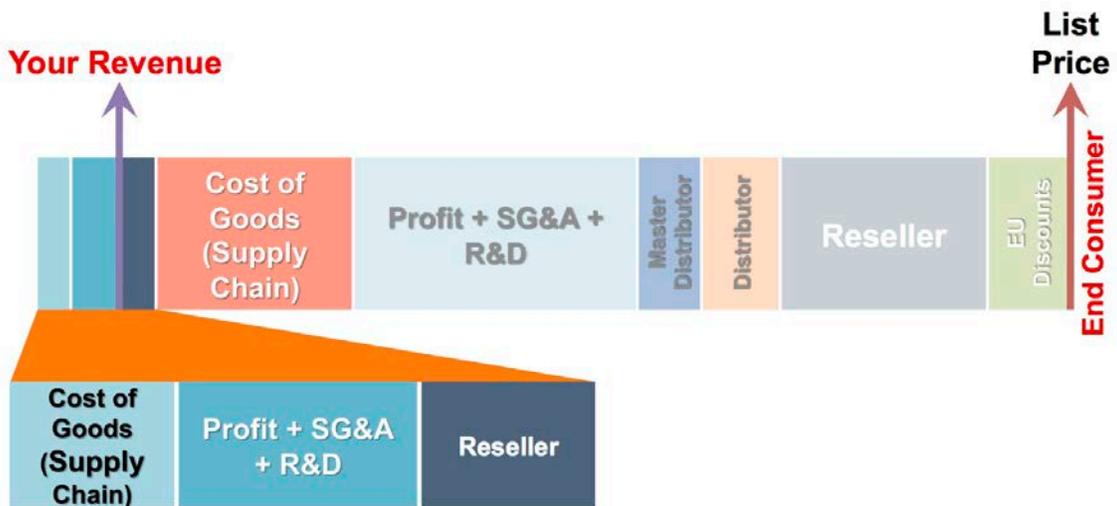
**Ensure Teams understand the Web/Mobile Distribution Channels**



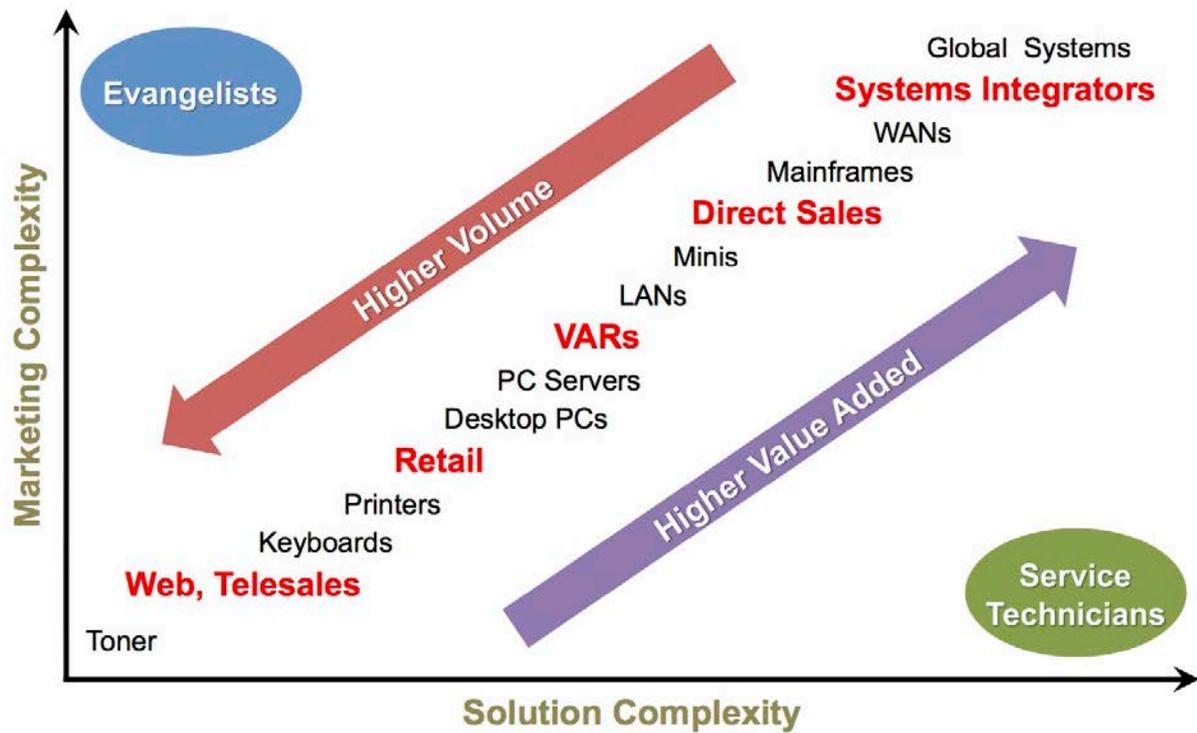
**Ensure Teams understand Direct Sales Channel Economics**



**Ensure Teams understand Reseller Channel Economics**



**Ensure teams understand OEM Sales Channel Economics**



**Ensure Teams understand Channel versus Product complexity**

## Class 5: Customer Relationships (Get/Keep/Grow)

### Summary:

- Team Presentation based on Distribution Channels Lecture
- Remote Lecture 5: Customer Relationships (Get/Keep/Grow)

<b>Team Presentations &amp; Instructor Critiques Teaching Objectives</b>	<ul style="list-style-type: none"> <li>• Pick up the pace of discovery, customer calls, insights &amp; critiques</li> <li>• Make sure Teams continue to:             <ul style="list-style-type: none"> <li>○ Annotate the Business Model Canvas with updates</li> <li>○ Include diagrams of each part of the hypotheses</li> <li>○ Update their Customer Discovery narrative on Innovation Within</li> </ul> </li> <li>• Focus your main critique on their understanding of distribution channel             <ul style="list-style-type: none"> <li>○ Acknowledge you've read their Customer Discovery narrative</li> <li>○ Realize some Teams are in the "trough of despair"</li> </ul> </li> <li>• Comment on other egregious parts of the canvas as necessary</li> </ul>
<b>How?</b>	<ul style="list-style-type: none"> <li>• Most people confuse the channel with the users of the product</li> <li>• Make sure their presentation includes a channel diagram</li> <li>• Make sure the channel diagram has the economics on it</li> <li>• Use your critiques to drive them to understand:             <ul style="list-style-type: none"> <li>○ What type of channel they'd use</li> <li>○ Why would they pick that one</li> <li>○ How much will it cost them to use it</li> </ul> </li> <li>• Ask, "Can you draw your channel map, showing how the product moves from your startup to its end user, along with the costs and marketing/sales roles of each step in the channel?"             <ul style="list-style-type: none"> <li>○ Make sure they've diagrammed it</li> </ul> </li> <li>• Do they understand the sales cycle and customer acquisition process             <ul style="list-style-type: none"> <li>a. Is it repeatable and scalable? Can they prove it?</li> </ul> </li> <li>• What is the length of the sales cycle?             <ul style="list-style-type: none"> <li>a. What are the critical points within that process?</li> </ul> </li> <li>• Is your sales funnel predictable?</li> </ul>

**Common Team errors on their 5th presentation**

- They may be stuck on their original customer segment or value prop
  - By now some might need encouragement to pivot
- Some might be making lots of calls, getting lots of data but not have a clue what it means
- People often do not ask for an order or know what it takes to get an order from the customer in their contact
  - This info/feedback is key data for defining sales cycle
- Most first-time entrepreneurs confuse channels with customers
- They may not understand:
  - The relationship between a channel and its revenue streams
  - The more complex the channel the smaller the margins will be
  - The cost benefit analysis for choosing channels
  - Did not articulate experiments to test their hypotheses
 Did not articulate pass/fail tests for each hypothesis

**This Lecture is pre-recorded. Teams need to watch it before class**

**Lecture 5  
Customer Relationships  
  
Get/Keep/  
Grow  
Learning Objectives**

- Teams should understand:**
- How Teams *get* customers into their sales channel and move them successfully through the sales cycle.
  - How to *keep* them as customers and
  - How to *grow* additional revenue from those customers over time.
  - Teams should understand how to develop “get customer” experiments to determine tactics that move customers into and through the sales funnel in a repeatable and scalable way.
  - Ensure that the Teams have an understanding of the concept of “Lifetime Value of a Customer” and how to calculate this figure and incorporate it into their customer acquisition strategies.
  - See key lecture concept diagrams below.

**Why?**

- “Get, Keep and Grow” are among the most important hypotheses for any startup to test
- Customer relationships are the result of a complex interplay among customers, sales channel, value proposition and budget for marketing
- Businesses that successfully “Keep” their customers focus heavily on retention strategies, tactics and metrics such as purchase patterns, cohort analysis, complaints, participation in “Grow” efforts, amongst others
- Multi-sided markets need separate “Get, Keep and Grow” strategies (e.g., users and payers)

**Lecture 5  
Customer  
Relationships  
Get/Keep/  
Grow**

**Instructors should emphasize:**

- Get/Keep/Grow needs to match their channel and customer segments. Emphasis on *repeatable and scalable* relationship strategies
- 1. Sales Funnel (Customer Relationship Life Cycle)
  - a. Awareness → Interest → Consideration → Purchase → Keep Customers ← Unbundle/Upsell ← Cross sell ← Referrals
  - b. Startups need to understand the sales cycle to “Get, Keep & Grow” a customer for their relevant market.
- 2. Demand creation – drives customers to chosen sales channels
  - a. Tactics: earned and paid media & marketing, online tools
- 3. Customer Acquisition Costs (CAC) and how to model/calculate
- 4. Customer Lifetime Value (LTV)
- 5. Retention strategies and tactics
  - How to create end user demand
  - Difference between web and other channels
  - Evangelism vs. existing need or category
- How demand creation differs in a multi-sided market

**Reading for  
next week**

- *SOM* pp. 180-188 revenue and pricing hypotheses, 260-269 verify business model, 438-456 metrics that matter
- Watch: Mark Pincus, “Quick and Frequent Product Testing and Assessment”:  
<http://ecorner.stanford.edu/authorMaterialInfo.html?mid=2313>

**Assignment for  
next week**

**Lecture**

- Watch Lecture 6 Revenue Streams – take the quiz
  - Available through Innovation Within

**Presentation**

- Talk to ~15 potential customers
- Build demand creation budget and forecast.
- Create objective pass/fail metrics for each “Get” test/methodology
  - What is your customer acquisition cost?
  - What is your customer lifetime value?
- Did anything change about Value Proposition, Customers/Users, Channel?
- Update your Customer Discovery narrative and canvas.

**Presentation  
Guidelines**

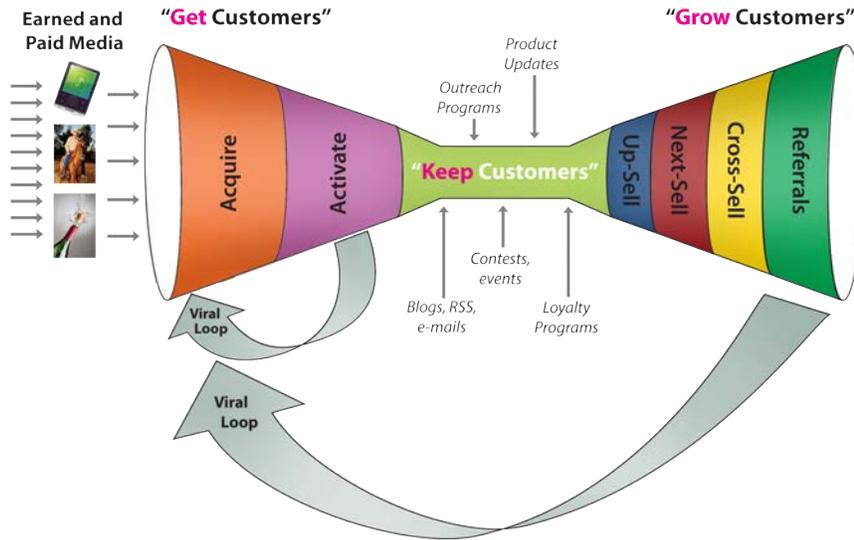
Slide 1: Cover slide (see syllabus for details)

Slide 2-n What did you learn about how to Get, Keep and Grow your customers?

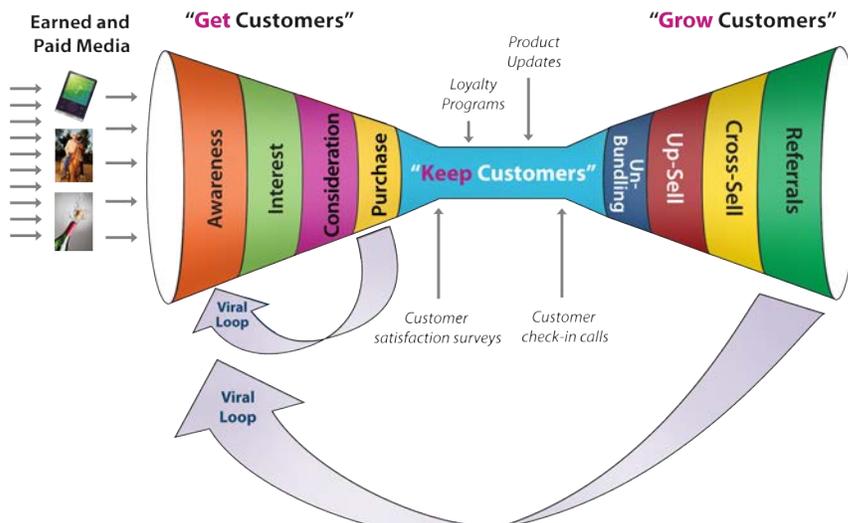
- Hypothesis: Here's What we Thought
- Experiments: So Here's What we Did
- Results: So Here's What we Found
- Iterate: So Here's What we Are Going to Do Next

Final Slide: Current Business Model Canvas with any changes marked

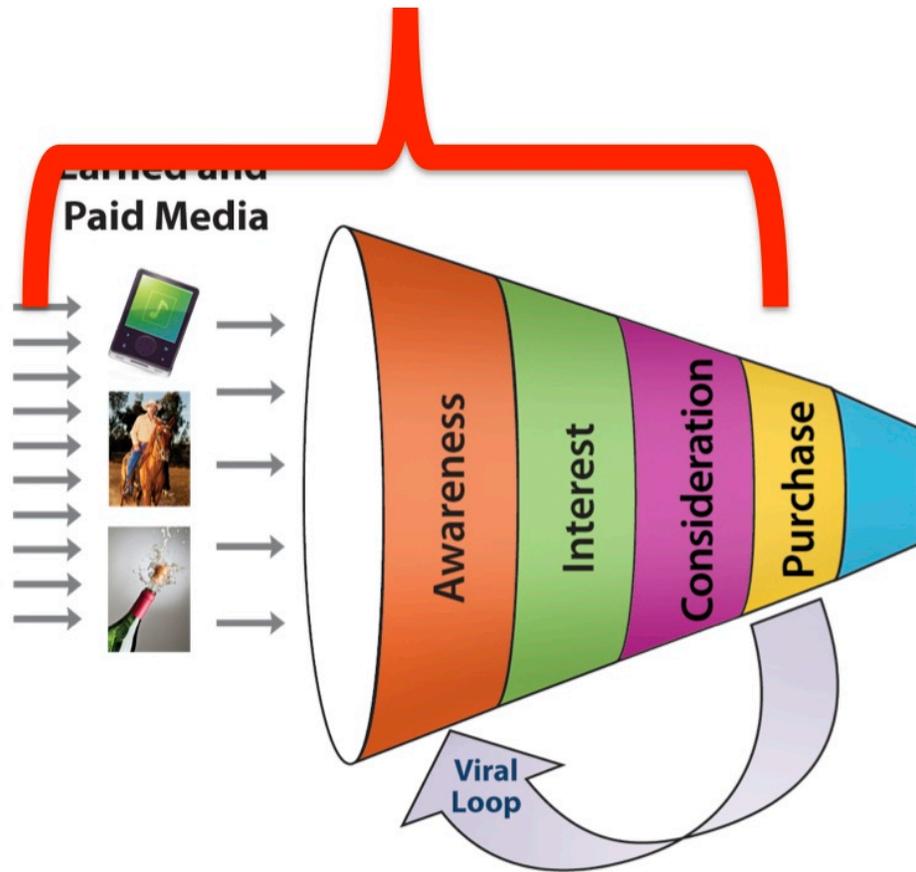
## Lecture 5: Key concept diagrams



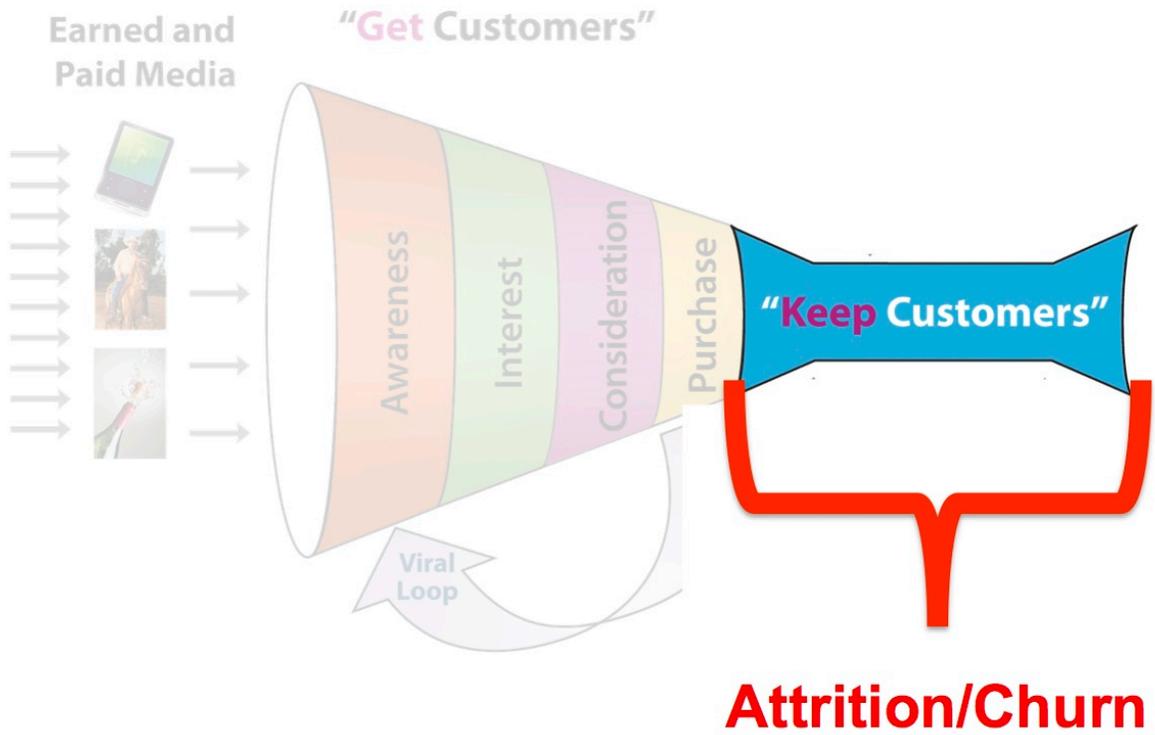
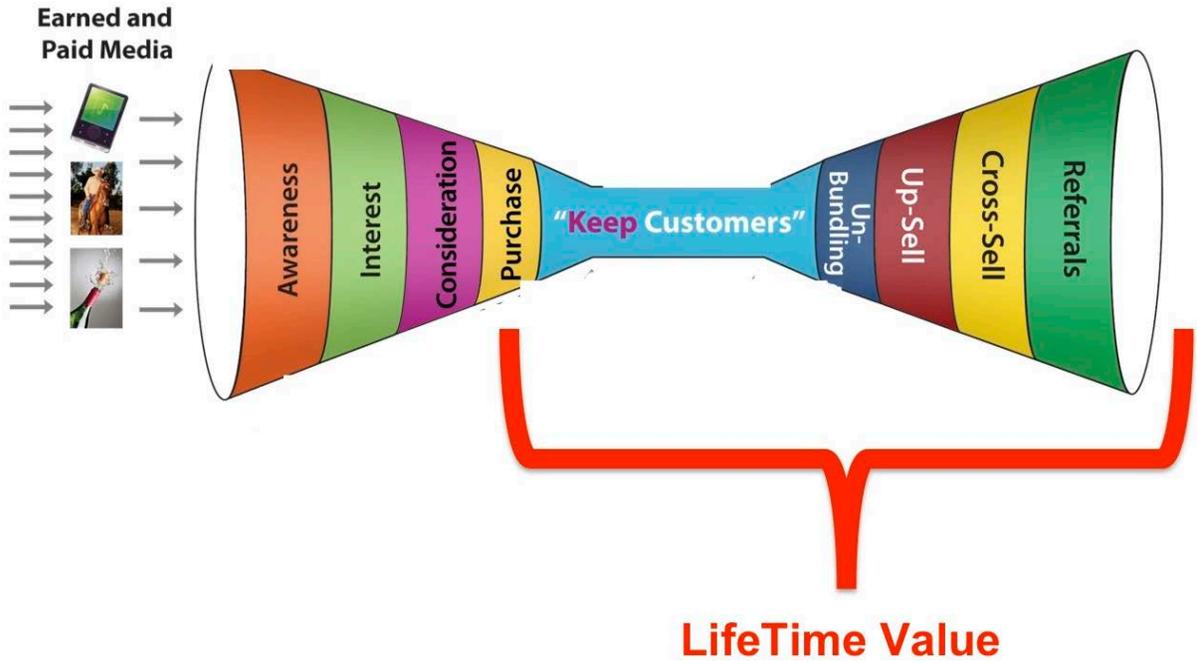
**Ensure Teams understand Get/Keep/Grow Customers on the Web**



**Ensure Teams understand Get/Keep/Grow Customers for Physical Channels**



**Ensure Teams understand Customer Acquisition Cost (CAC)**



## Class 6: Revenue Streams

### Summary:

- Team Presentation based on Customer Relationships Lecture
- Remote Lecture 6: Revenue Streams (30 minutes)
- Mentor meeting (30 minutes)

<p><b>Team Presentations &amp; Instructor Critiques Teaching Objectives</b></p>	<ul style="list-style-type: none"> <li>• Teams should be showing some real progress.             <ul style="list-style-type: none"> <li>◦ Realize some Teams are in the “trough of despair”</li> </ul> </li> <li>• Do not give up on the ones who seem lost, about half of those surprise you</li> <li>• Don’t let them slow down the pace of discovery and customer calls</li> <li>• Make sure Teams continue to:             <ul style="list-style-type: none"> <li>◦ Annotate the Business Model Canvas with updates</li> <li>◦ Include diagrams of each part of the hypotheses</li> <li>◦ Update their Customer Discovery narrative on Innovation Within                 <ul style="list-style-type: none"> <li>▪ Acknowledge you’ve read their Customer Discovery narrative</li> </ul> </li> </ul> </li> <li>• Focus your main critique on their understanding of customer relationships</li> <li>• Comment on other egregious parts of the canvas as necessary</li> </ul>
<p><b>How?</b></p>	<ul style="list-style-type: none"> <li>• Ask, “What earned media activities do you plan to do for your startup? What do you hope to achieve?”</li> <li>• Even though they won’t have time to do real demand creation they need to grasp the concepts of Get/Keep/Grow, CAC, &amp; LTV</li> <li>• Ensure their diagrams show funnel and real \$’s for costs</li> <li>• Ask, “Do you know what your customers read, what trade shows they attend, gurus they follow, and where they turn for new product information?”</li> </ul>
<p><b>Common Team errors on their 6th presentation</b></p>	<ul style="list-style-type: none"> <li>• To most, marketing is even more of a mystery than sales</li> <li>• Let them know that the funnel is their magic decoder ring to marketing</li> <li>• People often do not understand the difference between customer “acquisition” and customer “activation” for web/mobile startups</li> <li>• Online marketing is important, even if the product and sales channels are physical</li> </ul>

<b>Lecture 6 Revenue Streams Learning Objectives</b>	<b>Teams should understand:</b> <ul style="list-style-type: none"> <li>• Revenue model = the strategy the company uses to generate cash from each customer segment <ul style="list-style-type: none"> <li>○ Direct Sales, Licensing, Subscription</li> </ul> </li> <li>• Within the revenue model – how do I price the product? <ul style="list-style-type: none"> <li>○ Pricing is a tactic</li> <li>○ Revenue model is the <i>strategy</i></li> </ul> </li> <li>• This is not about income statement, balance sheet and cash flow. Those are operating details that are derived after a proven Revenue Model and pricing.</li> <li>• See key lecture concept diagrams below</li> </ul>
<b>Lecture 6 Revenue Streams</b>	<b>Instructors should emphasize:</b> <ul style="list-style-type: none"> <li>• Types of revenue streams</li> <li>• Revenue models</li> <li>• Pricing Tactics</li> <li>• Physical versus Web/Mobile Revenue models and Multi-sided market revenue models</li> </ul>
<b>Mentor Meeting</b>	<b>Mentor meeting (mentors only – no PIs or ELs):</b> This is an opportunity for the Teaching Team to check in with the mentors (following up from the mentor meeting at the kick-off workshop), review their role and responsibilities, and engage them regarding the health and progress of the Teams.

<b>Assignment for Next Week</b>	<b>Lecture</b> <ul style="list-style-type: none"> <li>• Watch Lecture 7 Partners – take the quiz <ul style="list-style-type: none"> <li>○ Available on Innovation Within</li> </ul> </li> <li>• Watch the David Riemer series of videos on using storytelling to communicate your I-Corps™ learning journey <a href="http://venturewell.org/i-corps/llpvideos/david-riemer/">venturewell.org/i-corps/llpvideos/david-riemer/</a></li> <li>• Watch sample videos from previous cohorts, which are available for your reference at <a href="http://venturewell.org/i-corps/team-materials/">venturewell.org/i-corps/team-materials/</a></li> <li>•</li> </ul> <b>Presentation</b> <ul style="list-style-type: none"> <li>• Talk to ~15 potential customers.</li> <li>• What's the revenue model strategy?</li> <li>• What are the pricing tactics?</li> <li>• Draw the diagram of payment flows.</li> <li>• What are the metrics that matter for your business model?</li> <li>• Did anything change about Value Proposition, Customers/Users, Channel, Customer Relations?</li> <li>• Update your Customer Discovery narrative and canvas.</li> </ul>
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**Presentation  
Guidelines**

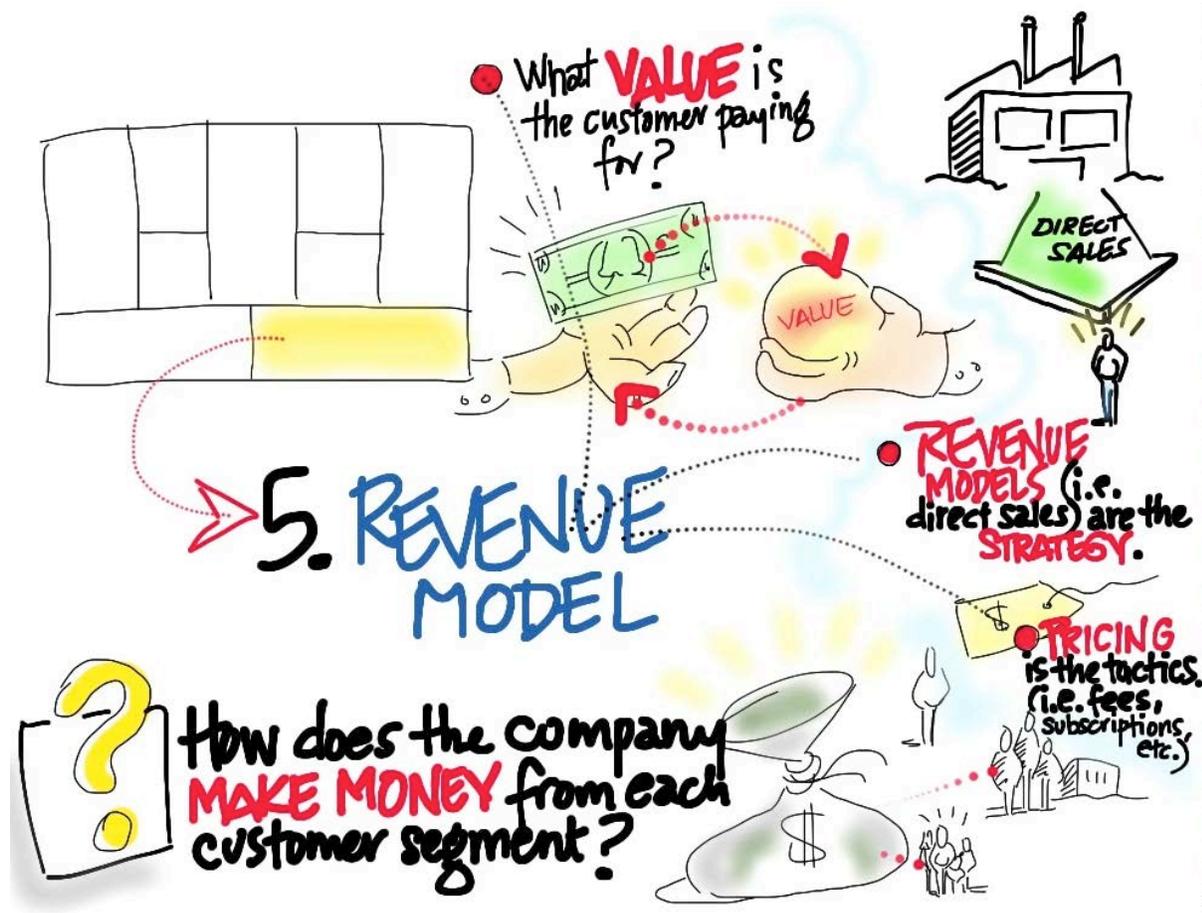
Slide 1: Cover slide (see syllabus for details)

Slide 2-n What did you learn about your revenue model?

- Hypothesis: Here's What we Thought
- Experiments: So Here's What we Did
- Results: So Here's What we Found
- Iterate: So Here's What we Are Going to Do Next

Final Slide: Current Business Model Canvas with any changes marked

## Lecture 6: Key concept diagrams



**Revenue Model** = the strategy the company uses to generate cash from each customer segment

**Pricing Model** = the tactics you use to set the price in each customer segment

## Revenue Model Choices Channel

		Web	Physical
<b>Product</b>	<b>Bits</b>	<ul style="list-style-type: none"> <li>■ Direct Sales               <ul style="list-style-type: none"> <li>■ Products</li> <li>■ License</li> <li>■ Subscription</li> <li>■ Upsell/Next Sell</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>■ Direct Sales               <ul style="list-style-type: none"> <li>■ Products</li> <li>■ Subscription</li> <li>■ Add-on services</li> <li>■ Upsell/Next Sell</li> </ul> </li> <li>■ Referrals</li> </ul>
	<b>Physical</b>	<ul style="list-style-type: none"> <li>■ Ancillary Sales:               <ul style="list-style-type: none"> <li>• Referral revenue</li> <li>• Affiliate revenue</li> <li>• E-mail list rentals</li> <li>• Back-end offers</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>■ Direct Sales               <ul style="list-style-type: none"> <li>■ Products</li> <li>■ Service</li> <li>■ Upsell/Next Sell</li> </ul> </li> <li>■ Referrals</li> <li>■ Leasing</li> </ul>

## Class 7: Partners

### Summary:

- Team Presentation based on Revenue Streams Lecture
- Remote Lecture 7: Partners
- Address Lessons Learned video and presentation expectations in discussion

<b>Team Presentations &amp; Instructor Critiques Teaching Objectives</b>	<ul style="list-style-type: none"> <li>• Teams should be showing some real progress.             <ul style="list-style-type: none"> <li>◦ Realize some Teams are in the “trough of despair”</li> </ul> </li> <li>• Do not give up on the ones who seem lost, about half of those surprise you</li> <li>• Don’t let them slow down the pace of discovery and customer calls</li> <li>• Make sure Teams continue to:             <ul style="list-style-type: none"> <li>◦ Annotate the Business Model Canvas with updates</li> <li>◦ Include diagrams of each part of the hypotheses</li> <li>◦ Update their Customer Discovery narrative on Innovation Within                 <ul style="list-style-type: none"> <li>▪ Acknowledge you’ve read their Customer Discovery narrative</li> </ul> </li> </ul> </li> <li>• Focus your main critique on their understanding of revenue models and pricing</li> <li>• Comment on other egregious parts of the canvas as necessary</li> </ul>
<b>How?</b>	<p>Ask:</p> <ul style="list-style-type: none"> <li>• What is your revenue model?</li> <li>• Why did you select it?</li> <li>• How do customers buy today?</li> <li>• What do they pay today?</li> <li>• What do competitors charge?</li> <li>• Does it result in a large company? Sufficient profit?</li> </ul>
<b>Common Team errors on their 7th presentation</b>	<ul style="list-style-type: none"> <li>• People confuse pricing <i>tactics</i> with revenue model <i>strategy</i></li> <li>• Teams price on cost versus value</li> <li>• No appreciation of competitive pricing or offerings</li> <li>• Revenue adds up to a small business</li> <li>• Business too small for a company should focus on licensing</li> </ul>

**This Lecture is pre-recorded. Teams need to watch it before class**

<p><b>Lecture 7 Partners Learning Objectives</b></p>	<p><b>Teams should understand:</b></p> <ul style="list-style-type: none"> <li>• What is a Partner?</li> <li>• Types of Partners</li> <li>• Risks associated with having a Partner and how to manage them</li> <li>• Suggestions related to selecting a Partner as a startup</li> <li>• See key lecture concept diagrams below</li> </ul>
<p><b>Lecture 7 Partners</b></p>	<p><b>Instructors should emphasize:</b></p> <ul style="list-style-type: none"> <li>• Who are Partners</li> <li>• The difference between strategic alliances, competition, joint ventures, buyers, suppliers and licensees</li> <li>• While Partners are critical for large companies (most companies do not do everything by themselves) Strategic alliances and joint partnerships are not needed to serve Earlyvangelists. They are needed for Mainstream customers</li> <li>• For startups, Partners can monopolize your time</li> <li>• Partners must have aligned goals and customers</li> <li>• Some examples:             <ul style="list-style-type: none"> <li>○ Partnership disasters: Boeing 787</li> <li>○ Strategic Alliances: Starbucks partners with Pepsi, create Frappuccino</li> <li>○ Joint Business Development: Intel partners with PC vendors</li> <li>○ Co-opetition: Automotive suppliers create AIAG</li> <li>○ Key Suppliers: Apple builds iPhone from multiple suppliers</li> </ul> </li> </ul>
<p><b>Additional discussion content</b></p>	<p><b>Final Lessons Learned</b></p> <p>The Teaching Team should take a few minutes to address requirements for the final Lessons Learned video and presentation and address Q&amp;A.</p>
<p><b>Reading for Next Week</b></p>	<ul style="list-style-type: none"> <li>• <i>SOM</i> pp.169-175 resources, 180-188 revenue and pricing</li> </ul>
<p><b>Assignment for Next Week</b></p>	<p><b>Video</b></p> <ul style="list-style-type: none"> <li>• Prepare your final 2-minute Lessons Learned video (see course syllabus for guidelines)</li> <li>• Watch the David Riemer series of videos on using storytelling to communicate your I-Corps™ learning journey  <a href="http://venturewell.org/i-corps/llpvideos/david-riemer/">http://venturewell.org/i-corps/llpvideos/david-riemer/</a> Watch sample videos from previous cohorts, which are available for your reference at <a href="http://venturewell.org/i-corps/team-materials/">http://venturewell.org/i-corps/team-materials/</a></li> </ul> <p><b>Lecture</b></p> <ul style="list-style-type: none"> <li>• Watch Lecture 8 Resources, Activities and Costs – take the quiz             <ul style="list-style-type: none"> <li>○ Available on Innovation Within</li> </ul> </li> </ul>

<b>Presentation Guidelines</b>	<p><b>Presentation</b></p> <p>Talk to ~15 potential customers including potential partners</p> <ul style="list-style-type: none"> <li>• What partners will you need?</li> <li>• Why do you need them and what are risks?</li> <li>• Why will they partner with you?</li> <li>• What's the cost of the partnership?</li> <li>• Draw the diagram of partner relationships with any dollar flows</li> <li>• Did anything change about Value Proposition or Customers/Users, Channel, Demand Creation or Revenue Streams?</li> <li>• What are the incentives and impediments for the partners?</li> <li>• Update your Customer Discovery narrative and canvas</li> </ul>
	<p>Slide 1: Cover slide (see syllabus for details)</p> <p>Slide 2-n What did you learn about your partners?</p> <ul style="list-style-type: none"> <li>○ Hypothesis: Here's What we Thought</li> <li>○ Experiments: So Here's What we Did</li> <li>○ Results: So Here's What we Found</li> <li>○ Iterate: So Here's What we Are Going to Do Next</li> </ul> <p>Final Slide: Current Business Model Canvas with any changes marked</p>

## Lecture 7: Key concept diagrams



## Class 8: Resources, Activities and Costs

### Summary:

- Team Presentation based on Partners Lecture
- Remote Lecture 8: Resources, Activities and Costs
- Preparation for final presentations

<b>Team Presentations &amp; Instructor Critiques Teaching Objectives</b>	<ul style="list-style-type: none"> <li>• This is the last presentation</li> <li>• Teams will want to slow down or stop calling customers. Don't let them slow down the pace of discovery and customer calls</li> <li>• Focus your main critique on their understanding of partners</li> <li>• Comment on other egregious parts of the canvas as necessary</li> </ul>
<b>How?</b>	<p>Ask:</p> <ul style="list-style-type: none"> <li>• How many partners have you spoken to?</li> <li>• What alignment does this partner have with your customers?</li> <li>• What need do you solve for this partner and how important is it to the partner?</li> <li>• What economic benefit does this partner provide your business?</li> <li>• How many partners are there like this?</li> </ul>
<b>Common Team errors on their 8th presentation</b>	<ul style="list-style-type: none"> <li>• Teams think their business has to do everything and don't realize the value of a partner in their value delivery</li> <li>• Teams assume getting a partner is a relatively easy process</li> <li>• Teams confuse partnership interest with successful closing of a partnership deal</li> <li>• Teams confuse partnership closing with successful executing of a partnership</li> </ul>

### **This Lecture is pre-recorded. All Teams need to watch it before class**

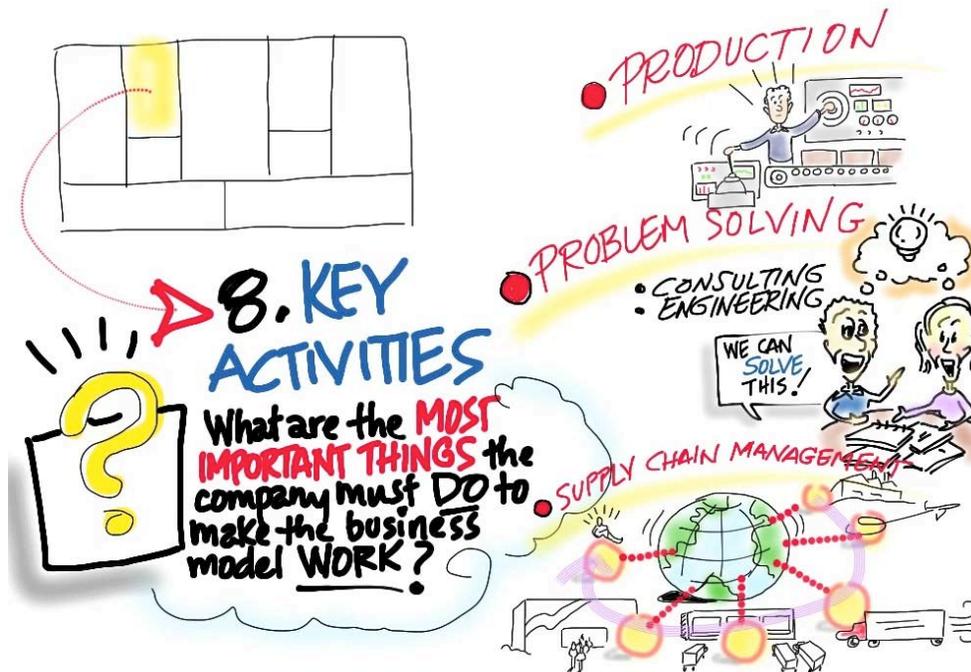
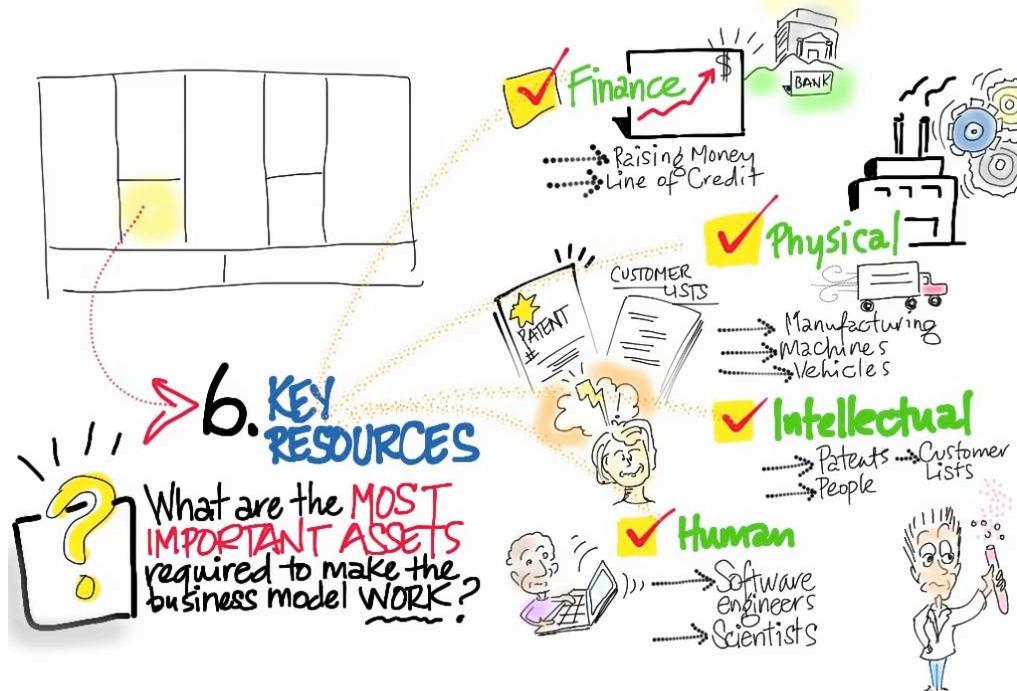
<b>Lecture 8 Resources, Activities and Costs Learning Objectives</b>	<p><b>Teams should understand:</b></p> <ul style="list-style-type: none"> <li>• Cover the four categories of resources</li> <li>• Cover the types of activities</li> <li>• Talk about the effect of people upon the culture of the startup</li> <li>• Enumerate the ways in which a startup's intellectual property can be protected</li> <li style="padding-left: 20px;">Add up all the costs. Is this a business?</li> <li>• See key lecture concept diagrams below</li> </ul>
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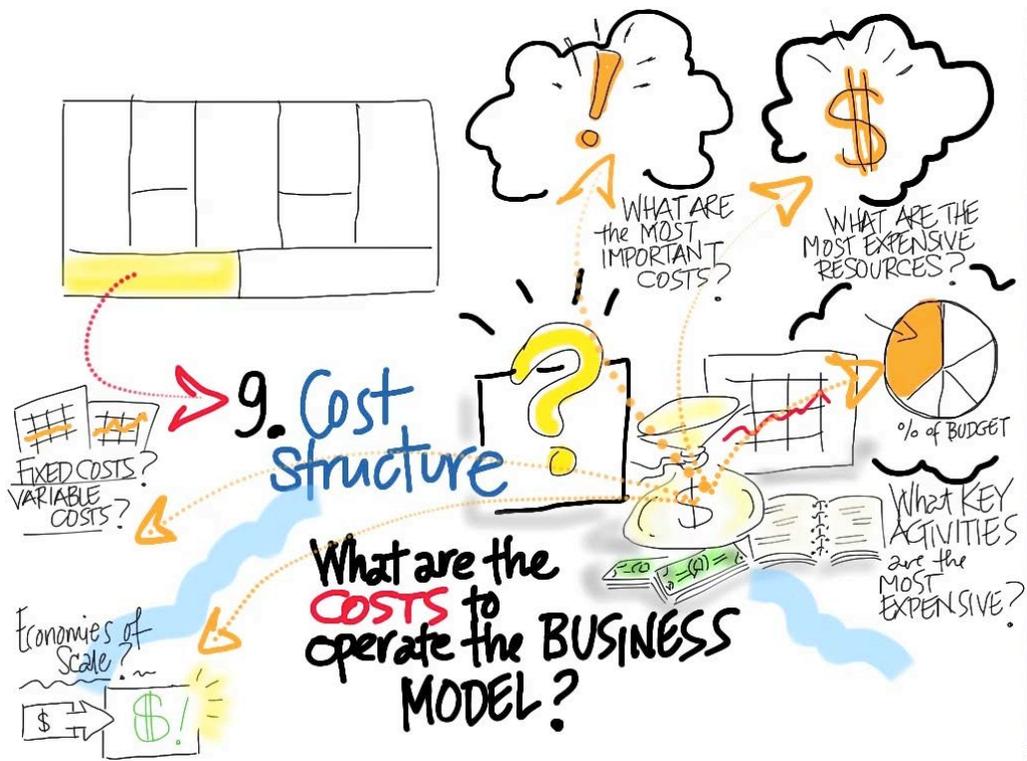
<b>Lecture 8 Resources, Activities and Costs</b>	<p><b>Teams should understand:</b></p> <ul style="list-style-type: none"> <li>• Resources: Financial, Physical, Intellectual, Human Capital</li> <li>• Intellectual property protection. The assumptive path (patents) may not be the right one to choose at this stage.</li> <li>• Activities: Manufacturing? Supply Chain? Problem Solving?</li> <li>• Costs: Fixed costs? Variable Costs?</li> </ul>
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<b>Additional Discussion Content</b>	<p><b>Go/No Go Decision</b></p> <p>This is a guide to the “Go/No-Go” decision. This is always a challenging assessment. We recognize that this is an interim assessment, for even as you complete the I-Corps program, you have most likely not completed all the customer discovery required to totally assess your venture. Nor have you likely had the time to explore every potential market for, or application of, your technology. This is true of even the most promising opportunities. The key at this point is to make an evidenced based decision, based on the evidence you gathered in the customer discovery process.</p> <p>The criteria for a “Go” decision is that you have validated clear “Product &gt; Market Fit.” Ask yourself: “have we identified a business worth pursuing?” If the answer is yes, then you will be asked to provide evidence to support your decision.</p> <p>If you answer no, you will be asked to explain your answer and whether you will continue to pursue product &gt; market fit for the existing idea, pivot to different applications of the core technical capability, or abandon efforts to commercialize the technology and move on. All answers are equally acceptable – as long as they are evidence based.</p>
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<b>Assignment</b>	<ul style="list-style-type: none"> <li>• Keep talking to ~15 customers a week</li> <li>• Final 10-minute presentation and 2-minute video on lessons learned and a 1-minute Tech video.</li> </ul>
<b>Presentation Guidelines</b>	<ul style="list-style-type: none"> <li>• See Course Syllabus</li> </ul>

## Lecture 8: Key concept diagrams





## Class 9: Story Telling for Scientists and What's Next

### Summary:

- In-person lecture on Storytelling (by Teaching Team or external presenter)
- Presentation practice
- SBIR presentation delivered by NSF
- Coaching from Teaching Team regarding Go/No-go decision and next steps
- In-person presentation on What's Next.

<b>Teaching Objectives</b>	<ul style="list-style-type: none"> <li>• Identify value add of the course for the Team specifically key learning</li> <li>• Assist teams in understanding their Go/No Decision and what their next steps will be (see guide below)</li> <li>• Learn about future funding opportunities through the government (SBIR) and venture capitalists</li> <li>• Provide Teaching Team with feedback for future iterations</li> </ul>
<b>Go/No Go Guide for Instructors</b>	<p>This is a guide to the "Go/No-Go" decision. This is always a challenging assessment. We recognize that this is an interim assessment, for even as you complete the I-Corps program, you have most likely not completed all the customer discovery required to totally assess your venture. Nor have you likely had the time to explore every potential market for, or application of, your technology. This is true of even the most promising opportunities. The key at this point is to make an evidenced based decision, based on the evidence you gathered in the customer discovery process. The criteria for a "Go" decision is that you have validated clear "Product &gt; Market Fit"</p> <p><b>"Have you identified a business worth pursuing?"</b></p> <p>Yes or No</p> <p>If the answer is yes, then you will be asked to provide evidence to support your decision. If you answer no, you will be asked to explain your answer and whether you will continue to pursue product &gt; market fit for the existing idea, pivot to different applications of the core technical capability, or abandon efforts to commercialize the technology and move on. All answers are equally acceptable – as long as they are evidence based.</p> <p>At this preliminary stage, the completion of I-Corps, we use product &gt; market fit as the definition of a business worth pursuing [a 'Go']. At a later stage, when you have had more of an opportunity to more fully explore your business model, you and others, including investors, will hold the business to the more rigorous criteria of providing an appropriate risk adjusted return-on-investment [including time, money and opportunity cost].</p> <p>We believe in evidence-based decision making. Therefore, the critical factor</p>

is the support for your conclusions based on the evidence you and your team have discovered through your customer discovery process that supports your conclusions about your 'product > market fit'.

***The instructors may ask:***

- "On what evidence are you basing your decision?"
- "What are the critical insights?"
- "What are the "metrics that matter" that affirm your decision?"
- "To what extent has your customer discovery process validated your conclusion?"
- "What, if anything, do you need to do next to validate your conclusion?"

**What resources are required?**

All efforts require resources, at a minimum, the focus and energy of people dedicated to the task. Most likely, pursuing the venture, even on a preliminary basis will require access to IP and funds.

***The instructors may ask:***

- "What is the next step for this opportunity? e.g. More discovery and validation? An initial customer or business relationship?"
- "What will be the goal of this next step? What are your key hypotheses?"
- "What resources will be required?"
- "How do you expect to secure these resources?"
- "What members of the team, if any, are committed to helping secure these resources and follow-through to the completion of the next step [as you have defined it]?"
- "Securing financial, IP and even personnel resources often require incorporation. If appropriate, are you prepared to make that commitment to incorporation? Who would be involved post – incorporation? Have you considered in what roles? Do you expect to incorporate within a year?"
- 

**In conclusion**

Ask yourself and be prepared to discuss "What are the logical consequences of your decisions?"

**Assignment**

1. Video: 2-minute video focused on your journey through I-Corps™ as it relates to your business
2. Technology Video: 1-minute video focused on scientific details of your work
3. Lessons Learned Slide Deck (10 minutes)

<b>Lessons Learned Video (2 min)</b>	This video should be completed and submitted prior to the Closing workshop, as assigned by the Teaching Team. See syllabus for description.
<b>Technical Video Details (1 min)</b>	Short, technically focused video that is appropriate for a technically educated audience.
<b>Lessons Learned Slide Deck (10 min)</b>	<p>This will be different from your previous presentations as the objective is to <b><i>tell the story of your journey</i></b> through the Customer Discovery process.</p> <p>This presentation should:</p> <ul style="list-style-type: none"> <li>• Tell a story of what you did (e.g. Customer Discovery, mistakes, etc.) and what you learned</li> <li>• Focus on insights rather than data points</li> <li>• Highlight your “a-ha!” moment(s)</li> <li>• Include images and graphics that support your story</li> </ul> <p>The slides <b><i>require</i></b> some standard content for documentation for NSF. Your slides must:</p> <ul style="list-style-type: none"> <li>• Begin with an introduction of your Team (Team name and number, member names and roles, total interviews completed, and total <i>in-person</i> interviews).</li> <li>• Include multiple iterations of the Business Model Canvas (including first, last, and points of critical pivots) and diagrams. Make sure these slides are legible, in a large enough font to be read and understood.</li> <li>• End with a slide including your Go/No-Go decision and links to your videos (Lessons Learned and Technical) on YouTube.</li> </ul> <p>Your slide deck should support your storytelling: don’t present a narration of your slides. Your presentation should be a dynamic and engaging delivery of your Team’s story.</p> <p><b>The following is a sample of an appropriate set of slides for this presentation:</b></p> <p><b>Slide 1:</b> Team Name, total number of interviews, total number of in-person interviews &amp; a couple lines about what your initial idea was and the size of the opportunity</p> <p><b>Slide 2:</b> Team members – name, background, expertise and your role for the Team</p> <p><b>Slide 3:</b> Business Model Canvas, Version 1. (Verbally address, “Here was our original idea...”, make sure this is legible, use a large font)</p> <p><b>Slide 4:</b> “Here’s what we did...” (explain how you got out of the building, who you met, etc., e.g.: display logos and photos of customers, or a map of the territory covered)</p>

	<p><b>Slide 5:</b> “What we found was...” (reality); Include illustration of customer archetype or market size diagram to show what was learned from this new information</p> <p><b>Slide 6:</b> Business Model Canvas, Version 2, illustrating iteration or pivot... Explain why and what you found. “We then advanced this hypothesis...”</p> <p><b>Slide 7:</b> So here’s what we did (explain how you got out of the building); Perhaps include photos of the countryside or the factory you visited.</p> <p><b>Slide 8:</b> And here’s what we found (what was reality); including a photo and great quote that summarizes a key lesson learned; “So then...”</p> <p><b>Slide 9:</b> Your distribution channel diagram may illustrate what you learned.</p> <p><b>Slide 9:</b> Business Model Canvas Version 3. “We iterated or pivoted...”, explain why &amp; what you found.</p> <p><b>Slide 10:</b> Etc., etc., etc.</p> <p><b>Final Slide:</b> Clearly states “Go” or “No Go” and includes links to your videos on YouTube.</p> <p><i>Sample presentations from previous cohorts are available for your reference at <a href="http://venturewell.org/i-corps/team-materials">venturewell.org/i-corps/team-materials</a></i></p>
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## Class 10: Lessons Learned Presentation

<p><b>Teaching Objectives</b></p>	<p>Teams present:</p> <ul style="list-style-type: none"> <li>• 2-minute Lessons Learned video</li> <li>• 10-minute Lessons Learned Presentation</li> <li>• The Teaching Team should provide feedback to Teams’ plans for moving forward.</li> </ul>
	<ul style="list-style-type: none"> <li>• The Teaching Team must document 1) the Team’s Go or No go decision 2) the Collective Teaching Team’s assessment of each Team using the Go and No go criteria <ul style="list-style-type: none"> <li>○ <b>GO:</b> We’re ready to form a company or seek other’s investment, which may include SBIR.</li> <li>○ <b>NO-GO:</b> At this time, we are not prepared to incorporate and seek funding</li> </ul> </li> <li>• Score the Teams for the purpose of selecting a single Team to whom the Teaching Team will present an award at the closing session</li> </ul>

# 12 Course Agenda

We use an assigned Team number for each Team, with sequential numbers for each Team that has participated in I-Corps™. For example, University of Minnesota may be Team #281; Columbia University is Team #289, and so on per the list below.

## Class 1:

- Each Team has **3** minutes to introduce themselves and their Business Model Canvas (with 2 minutes for Teaching Team feedback).
- All Teams present in the same room.
- Upload your presentations to Dropbox before you present.
- Only the Team EL presents, but all Team members should stand in front.

Presentation order will be as follows. While the first Team is presenting, the next Team should line up by the podium.

## Example:

- Team 281: University of Minnesota
- Team 282: Yale University
- Team 283: University of Alabama
- Team 284: University of Arkansas
- Team 285: California Institute of Technology
- Team 286: University of Oregon
- Team 287: University of Kentucky
- Team 288: MIT
- Team 289: Columbia University
- Team 290: University of Wisconsin-Milwaukee
- Team 291: Georgia Tech Research Corporation
- Team 292: Western Michigan University
- Team 293: Case Western Reserve University
- Team 294: UC Santa Cruz
- Team 295: Iowa State University
- Team 296: University of Rochester
- Team 297: University of Washington
- Team 298: University of Illinois
- Team 299: CUNY City College
- Team 300: University of Maryland
- Team 301: University of Virginia Main Campus

### Class 2:

- Each Team has **10** minutes for their presentation (with 2 minutes for feedback).
- Teams will split into two groups.
- Presentations must be uploaded to Dropbox before presenting.

The first half of the Teams will remain in the main conference room.  
The other half will be in a nearby breakout room.

### Class 3:

- Each Team has **10** minutes for their presentation (with 5 minutes for feedback).
- Teams will split into three groups for presentations.
- Presentations must be uploaded to Dropbox before presenting.

Teams XX-YY will be in main conference room.  
Teams YY-ZZ will be in xxx room.  
Teams ZZ-AA will be in yyy room.

All the Entrepreneurial Leads have received a Dropbox invitation to upload presentations for the following class.

### Remote Classes 4-8:

- Each Team has **10** minutes for their presentation (with 2 minutes for feedback).
- Teams will split into three groups for presentations.
- Upload your presentations to Dropbox before you present.

Instructors will be with the same Teams in classes 4 and 5.

Teams will rotate for classes 6 and 7.

Teams will rotate again for class 8.

**The Teaching Assistant is responsible for the logistics and group assignments.**

# 13 Course Operations

Given all the moving parts of the class, (on-site and remote and the number of participants involved), instructors must be aware of their role and others' in administrating the program. The NSF, VentureWell and your NSF-selected node will work together to offer up to two courses at your institution(s). The **NSF I-Corps™ Course Handbook** provides a comprehensive guide to these roles and responsibilities. The following is a brief summary. Here's what each of them do:

- Identifying and contracting meeting facilities, hotel, AV, caters and other vendors: VentureWell.
- Communicating travel, lodging, logistics information to course participants: VentureWell
- Communicating in-class information to course participants: Teaching Assistant
- Collecting weekly Team presentations: Teaching Assistant
- Managing Google collaboration tools: The Teaching Assistant creates three Google documents before the course
  - Office hours sign-up sheet
  - Key Learning document to document Teaching Team insights during Team presentations
- Managing Presentation Sessions (on-site and online sessions): Teaching Assistant manages the order of presentation, timing, and presentation platforms (on-site: projector, remote: WebEx).
- Managing Innovation Within: VentureWell and Teaching Assistant
- Manage Online Office Hours: Teaching Assistant and Instructors to provide online office hours while Teams are working remotely

# Appendices

## Instructor Grading Sheet:

The screenshot shows the LaunchPad Central interface for an instructor grading sheet. The page title is "Team Presentations" and the specific presentation is "Team 300 - Presentation 02/25/2014".

**Navigation and Tools:**

- Buttons: "Create New Presentations", "Download Grading CSV".
- Left sidebar: A list of presentations for "02/25/2014", including items like "279 - 3D IP", "280", "281 - Accuplex Probes", "282 - Barcode Blotting", "283 VRM Labs", "284 - CMU Auton Lab", "285", "286 - GOPure", "287 Mercury Guard", "288 - Here comes the Sun", "289 - FlashBoost", "290", "291 - Epoxal", "292 Network Perception", "293 - Free-Space Optical Switch", "294 - SCM", "295 Dam-2D", "296", "297: Akadeum Life Sciences", "298", "299 - Team Catalysis".

**View team presentation:**

- Tabs: "Peer Comments", "Instructor-only Comments" (selected).
- Section: "Average Team Presentation Scores".
- Bar chart showing scores over time:

Date	Score
2014-01-13	3.8
2014-01-14	3.8
2014-01-15	5
2014-01-21	3.5
2014-01-28	6.3
2014-02-04	6.3
2014-02-11	3.3
2014-02-18	4
2014-02-24	4
2014-02-25	7.7

**Comments:**

- Comment 1: "Great video. Good process, and only figured it out at the end. Not quite a Magic Pivot, but close."
- Comment 2: "Good set up -- trying to change a \$1T industry (not quite that big in sales, but...) Fail. He is doing a great job on the presentation. Nice comment on reimbursement. Good story telling. Has real numbers. "Down scaleable" technology -- very catchy!"
- Comment 3: "So this MUST be a go -- they have capital, high interest, etc. Lets see what they say at the end."

**Grading and Chat:**

- Score input: "Score: 8" with an "Update" button.
- Faculty name: "John Doe, Faculty" dated "02/25/2014".
- Instructor Chat window: Shows a message from "John Doe" with the text "I have no idea what their Value Proposition is..." and a "Send" button.

## Example Teaching Assistant Communications

### **Introductory Email – 1 week in advance of the course**

Greeting I-Corps™ participant,

On behalf of the [Node Teaching Team, I would like to welcome you to the I-Corps™ program! My name is [NODE TA], I am the Teaching Assistant for the program.

In this email, you will find important information about your first assignment, team presentations, helpful documents and the schedule.

Please read through this email carefully. We look forward to hosting you next week.

### **Team Numbers**

There will be 21 teams participating in the [Node]N I-Corps™ Program. Each team has been assigned a number. Please reference the attached PDF for your team number. Please note that this will be your team number through the duration of the program.

### **Date of DAY 1**

#### **Team Presentations & Dropbox:**

On the first day of the program, Monday, July 18, each team will have **3 minutes** to introduce themselves and their Business Model Canvas. Teams will present in the numerical order according to the spreadsheet. The Entrepreneurial Lead will make this presentation and all presentations throughout the program.

Each Entrepreneurial Lead (EL) will receive a Dropbox invitation. Please plan to upload team presentations no later than 7:00 am each day of the program. Please name your files accordingly: Team number\_Team Name\_mmddyy. Files should be available in PDF format.

#### **Customer Discovery:**

During the afternoons of Day 1 and 2, you are expected to meet with potential customers in the area. **Please set up a minimum of five appointments in advance** for Day 1. *Refer to "Help Desk" information in this email for support with organizing appointments and networking.*

### **Date of Day 2**

Teams will split into two groups for their presentations. Each team will have 10 minutes to present the updated Business Model Canvas, reflecting new Customer Discovery information. There will be two minutes of commentary by the Teaching Team following each presentation.

### **Date of Day 3**

Teams will split into three groups for their presentations. Each Team will have 10 minutes to present the updated business model, and there will be five minutes for commentary by the Teaching Team following each presentation.

### **Office Hours with the Teaching Team**

Office hours may be scheduled with members of the Teaching Team by signing up for a 20-minute session. Visit the schedule here: [Office Hours Scheduling](#)

### **Additional Information**

You can find the schedule, syllabus, logistical information and more at our course webpage: <http://venturewell.org/i-corps/team-materials/>

If you have questions, please contact me directly by email or by phone. I am available to answer your questions.

I look forward to meeting you on **Date of Reception** at the kick-off reception. The reception will be held from **7pm- 9pm** at the **Venue Name**. Light appetizers and refreshments will be served. The reception will provide an opportunity to meet the other NSF I-Corps™ participants, as well as members of the [Node] entrepreneurial community.

Thank you,  
The Teaching Team and TA

## **Day 2 FAQ E-mail: 2-3 days before the course begins**

Dear Node I-Corps™ Date Participants,

Already, I have received a number of excellent questions about the upcoming I-Corps™ onsite in Newark that I believe will be of interest to everyone.

### **Frequently Asked Questions**

#### **Q. What is the dress code for the welcome reception and onsite classes?**

The I-Corps™ program does not have an official dress code. Having said that, we strongly recommend business casual attire for your time in the NYC area. Also, please keep in mind that the classrooms are heavily air-conditioned.

#### **Q. According to the syllabus, we are expected to set up meetings to talk to potential customers in the NYC area. Does this mean we are expected to have personal meetings with potential customers in the CITY area or teleconferences nationwide?**

During the “Get out of the building” portions of the program – DAY 1 and Day 2 afternoons - you are expected to conduct face-to-face interviews with at least 5 potential customers in the **CITY** area. This means that you should set up appointments before arriving in **CITY**. **This is crucial**. Be prepared to present the results of these conversations in class the following day (Day 2 and Day 3).

#### **Q. Is there a pre-class assignment?**

Before arriving, you are expected to complete all assigned readings (please refer to the syllabus for details). You are also expected to prepare a 2-slide PowerPoint presentation (3-minute Team introduction).

Slide 1:

- Name of your Team members
- Name of your Team
- A one or two sentence description of your product

Slide 2:

- Business Model Canvas with a particular focus on Value proposition, Customers, Channel and Revenue Model.

ELs should upload the presentation to Dropbox by 7am on the morning of Day 1. Presentations will begin around 9am.

#### **Q. Will our slides be made public?**

Yes, your slides will be made public. Your weekly and final slide decks should not contain any proprietary information. Slides should focus on your business model and Customer Discovery.

Please let me know if you have any additional questions or concerns.

Best,  
TA



## I-Corps™ Course Syllabus

### LOCATION OR REGIONAL NODE

Instructors: TT LEAD NAME, TT NAME, TT NAME

Adjunct Faculty: NAME, NAME, NAME

Teaching Assistant: NAME

#### Days and Times:

Kick-off workshop: MONTH DATES (with a Reception on MONTH DATE)

5 online classes: DAY, 1-4:00pm E T, MONTH AND DATES

Closing workshop: MONTH DATES

#### Required Texts:

*The Startup Owner's Manual*, Steve Blank and Bob Dorf

*Business Model Generation*, Alexander Osterwalder and Yves Pigneur

#### Recommended Texts:

*Value Proposition Design*, Greg Bernard, Yves Pigneur, Alexander Osterwalder and Alan Smith

*Talking to Humans*, Giff Constable and Frank Rimalovski

**This course requires in-depth preparation and significant effort outside of the lab.**

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#### Requirements for Enrollment

1. Attend as a NSF-selected Team consisting of a Principal Investigator, Entrepreneurial Lead, and Mentor. The I-Corps™ course is open to pre-approved I-Corps™ Teams only.
2. Each Team member must commit to class time plus at least 15 additional hours per week for Customer Discovery.

#### Pre-class Assignments (to be completed before **FIRST DAY OF KICK OFF**)

- Read pages 14–51 [loc. 268-842] of *Business Model Generation; Definition of a Business Model*
- Read pages 22–84 [19-83] and 195-199 [189-199] of *The Startup Owner's Manual; The Customer Development Model; Prepare for Customer Contacts*
- Giff Constable, “12 Tips for Early Customer Development Interviews”  
<http://giffconstable.com/2010/07/12-tips-for-early-customer-development-interviews/>
- Watch Introduction to BMC Part I and II (1.5 A & 1.5 B) Value Proposition, Customer Segments and all of the Customer Discovery Best Practice videos: at <https://www.launchpadcentral.com/>  
**YOU MUST WATCH THESE IN LPC**

- Review presentations from previous I-Corps Teams to assist you in your own preparation: <http://venturewell.org/i-corps/team-materials/> and <http://www.slideshare.net/sblank/tagged/i-corps> (note also the number of customer contacts each Team made over the course)
- See also <http://steveblank.com/category/lean-launchpad/> for background and blog posts on the Lean LaunchPad method and classes.

### Come prepared for the 1<sup>st</sup> day of class with:

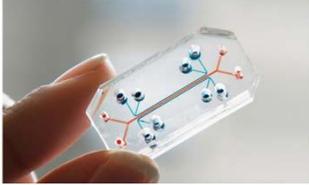
1. A 2-slide presentation to present your Team to the class (3 minutes). See below for the template.
  - a. Slide 1: Team name, University logo, Product picture/product description (one sentence), Pictures/names of your Team members.
  - b. Slide 2: Populated Business Model Canvas

*You must upload your presentation to the course Dropbox folder by 7:00 AM local time. All presentations should be in PDF format (See email from your TA)*
2. 15 or more customer/industry contacts at the institution and surrounding area. Set up local (LOCATION) meetings in advance for the “Get out of the Building” sessions during the kick-off workshop (see enclosed schedule). Be sure you schedule a substantial number of your meetings on day 1 (KICK OFF DATE). We strongly recommended you involve at least 2 Team members in each customer contact.

#### Slide 1: Title Slide

- Team name
- Team number
- University logo
- Product picture/product description (1 sentence)
- Pictures/names of your Team members

☆ Save your presentations to Dropbox using this naming convention:  
 TeamNumber\_TeamName\_Date  
 e.g., 195\_DataComm\_05062013

		<b>Team 547</b>
		<b>Richard C. Callaway, PI</b>
		<b>Judy G. Aguilar, EL</b>
<p>A multi-channel 3-D microfluidic chip that simulates the activities, mechanics and physiological response of entire organs and organ systems.</p>		<b>Bikatu Barsukov, M</b>

## Slide 2: Populated Business Model Canvas

TEAM NAME HERE		FILL OUT ALL 9 BOXES OF THE CANVAS IN ORDER 1 THUR 9		
<b>Key Partners</b>  <b>7</b> Who are our Key Partners?	<b>Key Activities</b>  <b>5</b> What Key Activities do our Value Propositions require?	<b>Value Propositions</b>  <b>1</b> Which one of our customer's <i>problems</i> are we helping to solve? or Which customer <i>needs</i> are we satisfying?	<b>Customer Relationships</b>  <b>4</b> How will we Get, Keep and Grow customers?	<b>Customer Segments</b>  <b>2</b> For who are we solving a problem or fulfilling a need?  Who are the customers?
	<b>Key Resources</b>  <b>6</b> What Key Resources (suppliers, etc.) do our Value Propositions require?	What is the specific product/service?  What are the <i>features</i> that match customer needs?	<b>Channels</b>  <b>3</b> Through which Channels do our Customer Segments want to be reached?	Does the value proposition match their needs?  Is this a single-sided or multi-sided market?
<b>Cost Structure</b>  What are the most important costs in our business model?		<b>Revenue Streams</b>  What is the revenue model? What are the pricing tactics? For what value are our customers willing to pay?		
		<b>9</b>		<b>8</b>

### Course Goals

1. Give the I-Corps Team an experiential learning opportunity to help determine the commercial readiness of their technology.
2. Enable the Team to develop a clear go/no go decision regarding commercial viability of the effort.
3. Develop a transition plan to move the technology forward to market, if the Team decides to do so.

### Course Description

This course will provide I-Corps Teams with real-world, hands-on learning experience with how to successfully transfer knowledge into products and processes that benefit society. The entire Team will engage with industry. You and your Team will learn from talking to customers, partners and competitors, and from encountering the chaos and uncertainty of commercializing innovations and creating ventures.

This course is not about how to write a research paper, business plan or NSF grant. It is not an exercise on how smart you are in a lab or a classroom or how well you use the research library. The end result is not a paper to be published.

This course is about getting out of the building. It is not about the lectures. You will be spending a significant amount of time in between each of the lectures, outside the building, talking to customers and testing your hypotheses. If you cannot commit the time to talk to customers, the I-Corps™ program is not for you.

## Teams

This is a team-based class. You will work in teams to turn your research and technology idea into a product, service or process that benefits society. You will learn how to use a business model to brainstorm each part of an enterprise and customer development. You will get out of the building to see whether anyone other than you would want/use your product.

All three members of the I-Corps Team—Principal Investigator, Entrepreneurial Lead and Mentor—must participate in all out of the building customer discovery activities. Each week will be a new adventure as you design experiments and test hypotheses on each part of your business model and customers. Finally, you will see how agile development can help you rapidly iterate your product to build something potential customers will use and buy.

As part of this process, you will encounter issues on how to build and work with a team. We will help you understand how to successfully build and manage your startup team. We encourage I-Corps Teams to recruit any and all resources. Others, including students and non-students may serve as extra members of the Teams.

Mentors have additional duties as described in the *Mentor Guide*. Mentors please read and review the document.

## Class Culture

The startup culture is dramatically different from the university culture most of you are familiar with. Startups communicate much differently than inside a university and lab. The class culture can feel brusque and impersonal, but it is intentionally oriented to simulate the time- and cash-constrained environments in which startups operate. We have limited time and we push, challenge, and question you in the hope you will quickly learn. We will be direct, open, and tough – just like the real world. We hope you can recognize that these comments aren't personal, but part of the process.

We also expect you to question us, challenge our point of view if you disagree, and engage in a real dialogue with the Teaching Team. This approach may seem harsh or abrupt, but it is all part of our wanting you to learn to challenge yourselves quickly and objectively, and to appreciate that as entrepreneurs, you need to learn and evolve faster than you ever imagined possible.

## Attendance and Participation

1. All Team members must attend the kick-off workshop, 5 online classes, and final workshop.
2. If you anticipate missing more than one online class, we recommend that you reapply to the I-Corps™ Program when you can commit the time to the course.
3. Getting out of the building is what the class is about. If you cannot commit at least 15 hours a week to talk with customers, don't enroll in the course.

## Class Roadmap

Each class is organized around:

1. A lecture on one of the 9 building blocks of a business model as described in *Business Model Generation*.
2. Team presentations on your “Lessons Learned” from getting out of the building and iterating or pivoting your business model.

3. Using LaunchPad Central to log your Customer Discovery process.

### **Deliverables**

1. A record of your customer discovery progress using LaunchPad Central to capture the narrative, contact information, learning and insight. This is also how progress is monitored.
2. A weekly, 10-minute presentation on your progress. Your weekly and final slide decks ***should not contain any proprietary information***. They should focus on your business model and customer discovery. You will learn from looking at the presentations from past classes, and future Teams will learn from yours (final videos will be posted to YouTube).
3. Minimum Viable Product (MVP): An MVP is a prototype that captures the minimum functionality. The Customer Discovery Process, a central element of the Lean LaunchPad approach to technology commercialization, requires development of a MVP so the Team can clearly communicate the product capability and value proposition. This process also helps focus the Team on what is and is not essential. For physical products, developing an MVP may be challenging and various approaches will be discussed during the first class sessions. For a web based services, or other software applications, it is best to having a working demo or even a working site. In either case, the Team should think through what it will cost for product development and for physical products, on a per unit basis. This last point is essential to understand the gross margin profitability and therefore the business viability of the product. This will require thinking through a product bill-of-materials.

## COURSE OVERVIEW

### ***Kick-off Workshop***

Your entire I-Corps Team (Principal Investigator, Entrepreneurial Lead, Mentor) will attend the kick-off workshop at your host institution. During this three-day workshop, your Team will be introduced to the Lean LaunchPad approach, the Teaching Team and your peers. You will learn the business model development and customer development process, and you will get out of the building to meet with customers. You will present what you learn to the class and record your progress on LaunchPad Central. During each Team's presentation, the Teaching Team will offer observations and guidance. When not presenting, you will be offering input to your peers using a real-time, interactive peer review sheet.

### ***5 Online classes***

Five, weekly online classes will convene on WebEx. During this 5-week period, your Team is also required to get out of the building and test your business model assumptions, meeting with about 15 customer contacts each week (with the objective of conducting at least 100 total contacts). Record your progress on LaunchPad Central. Update your first slide each week to include the total number of customers you talked to.

#### Each WebEx class will consist of:

- 2 hours: **Team presentations** – Each Team will present a 10-minute weekly progress report to members of the Teaching Team and your peers. This is how we monitor your progress and give you guidance. When not presenting, you will be offering input to your peers using an interactive peer review sheet. We also discuss the week's assignment topic so you are expected to watch the online weekly lecture in advance of this discussion.

### ***Closing Workshop***

The entire I-Corps Team will attend the final workshop at your assigned host institution. At that event, the Teams will present their lessons learned in their exploration of commercial feasibility to the Teaching Team.

### ***Office Hours***

The Teaching Team is available for regular office hours. Your Team is strongly encouraged to make use of this knowledge resource. Meet with Teaching Team members during office hours to receive individualized responses to your questions and comments. You may sign up for office hours through the Office Hours Google doc, which can be accessed through LaunchPad Central.



## Detailed Course Schedule

### DAY MONTH DATE – Class 1

Time	Session
8:00 - 8:30 am	<b>Introduction</b> <ul style="list-style-type: none"> <li>Teaching Team Introductions</li> <li>Class Goals</li> <li>Teaching Philosophy</li> <li>Expectations of You</li> </ul>
8:30 - 9:00 am	<b>Lecture 1, Part 1: Business Model/Customer Development</b>  What's a business model? What are the 9 parts of a business model? What are hypotheses? What is the Minimum Feature Set? What experiments are needed to run to test business model hypotheses? What's "getting out of the building?" What is market size? How to determine whether a business model is worth doing?
9:00 - 11:30 am	<b>Team Introductions</b>  Teams present their business model canvas to the entire classroom. Each Team is allotted 5 minutes total, to include 3 minutes of presentation 2 minutes for Teaching Team comment.
11:30 - 12:00 pm	<b>Lecture 1, Part 2: Business Model/Customer Development</b>
12:00 - 1:30 pm	<b>Working Lunch and Best Practices for Customer Discovery</b>  How to call on people you don't know. How to get the most out of people you do. Expectations, speed, tempo, logistics, commitments. How do I protect my IP when I speak to partners? Does Lean work for non-software efforts? How do I interview? How is an interview different than a sales call?
1:30 - 2:00 pm	<b>Launch Pad Central Training</b>
2:00 - 7:00 pm	<b>Get out of the building!</b>  Meet with potential customers in the area. Schedule these meetings prior to coming to the kick-off workshop. You will be presenting your results tomorrow morning in your updated business model canvas.
7:00 - 8:00 pm	<b>Dinner/Panel: How to Succeed in the Innovation Corps</b>  A panel discussion with prior participants in the I-Corps™ program.
8:00 – 8:30 pm	<b>Mentor Workshop (Mentors only)</b>  The role of Mentors in the Lean Launchpad process.
8:00 – 8:30 pm	<b>PI Workshop (PI's only)</b>
8:30 pm - finish	<b>Mandatory Office Hours</b>

A schedule of **Office Hours** throughout the course will be made available. Office hours are mandatory both days of the kickoff workshop.

## Assignment for Class #2 DAY MONTH DATE for Class #2 July 19

### READ:

- *Business Model Generation*, pp. 86–111 [1094-1549], *Multisided Platforms*; 135–145 [1878-2088], *Ideation*
- *The Startup Owner's Manual* review pages 53–84 [53-84] *Intro to Customer Discovery*
- Steve Blank, "What's a Startup? First Principles,"  
<http://steveblank.com/2010/01/25/whats-a-startup-first-principles/http://steveblank.com/2010/01/25/whats-a-startup-first-principles/>
- Steve Blank, "Make No Little Plans – Defining the Scalable Startup,"  
<http://steveblank.com/2010/01/04/make-no-little-plans---defining-the-scalable-startup/http://steveblank.com/2010/01/04/make-no-little-plans---defining-the-scalable-startup/>
- Steve Blank, "A Startup is Not a Smaller Version of a Large Company",  
<http://steveblank.com/2010/01/14/a-startup-is-not-a-smaller-version-of-a-large-company/http://steveblank.com/2010/01/14/a-startup-is-not-a-smaller-version-of-a-large-company/>

<http://steveblank.com/2010/01/14/a-startup-is-not-a-smaller-version-of-a-large-company/>

### ASSIGNMENT:

- If you haven't completed 5 customer interviews, get out of the building some more
- Start to identify your market size
- Identify your path to commercialization (IP/licensing/startup/unknown)
- Propose experiments to test your customer segment, value proposition, channel and revenue model of the hypothesis
- What constitutes a pass/fail signal for each test?
- Talk to potential customers

### PRESENTATION FORMAT:

**Slide 1:** Cover slide (Team member names, Team name, Team number, your business thesis (who is my customer, what is my product, why will they buy it) AND number of customer interviews completed since you last presented.

**Slide 2-n:** What did you learn about your value proposition from talking to your first customers?

*Hypothesis:* Here's What We Thought

*Experiments:* So Here's What We Did

*Results:* So Here's What We Found

*Iterate:* So Here's What We Are Going to Do Next

**Slide 3:** Current business model canvas with any changes marked. **Must use the BMC in LPC and export from LPC to your presentation.**

**Slide 4:** Tell us about your Market size (TAM/SAM/Target)

**Slide 5:** What type of path will you take to commercialization?  
(IP/licensing/startup/unknown)

**Slide 6:** What are your proposed experiments to test customer segment, value proposition, channel and revenue model of the hypotheses: What constitutes a

pass/fail signal for each test (e.g. at what point would you say that your hypotheses wasn't even close to correct)?

**Upload your presentation, in PDF format to Dropbox by 7:00 AM LOCAL TIME**

## DAY MONTH DATE – Class 2

Time	Session
8:00 – 8:10 am	<b>Day 2 Introduction</b> A brief introduction by NSF
8:10 – 11:00 am	<b>Team Presentations</b> Teams present their business model canvas in two concurrent tracks. Each Team is allotted 12 minutes total to include 10 minutes for presentation, 2 minutes for Teaching Team comments.
11:00 – 12:00 pm	<b>Lecture 2: Value Proposition</b> Lecture: What is your product or service? How does it differ from an idea? Why will people want it? Who's the competition and how does your customer view these competitive offerings? Where's the market? What's the <i>minimum feature set</i> ? What's the Market Type? What was your inspiration or impetus? What assumptions drove you to this? What unique insight do you have into the market dynamics or into a technological shift that makes this a fresh opportunity?
12:30 – 7:30 pm	<b>Get out of the building!</b> Meet with potential customers in the area. Schedule these meetings prior to coming to the kick-off workshop. You will be presenting your results tomorrow morning in your updated business model canvas.
7:30 – 8:00 pm	<b>EL Workshop (EL's only)</b>
8:00 pm - finish	<b>Mandatory Office Hours</b>

A schedule of **Office Hours** throughout the course will be made available. Office hours are mandatory both days of the kickoff workshop.

## Assignment for Class #3 **DAY MONTH DATE** for Class #3 Wednesday July 20

### READ:

- *Business Model Generation, Visual Thinking* pages. 146–150 [2090 – 2131], *Prototyping* 161–168 [2297-2442] and *Business Model Environment*, 200–211 [3096-3410]
- *The Startup Owner's Manual, Customer Segments* pages 85–97 [84-97]

### ASSIGNMENT:

- Get out of the building and talk to as many customers as you can
- Generate a value proposition hypothesis
- Review customer discovery videos at <https://www.launchpadcentral.com><https://www.launchpadcentral.com/>
- Ask potential customers what they think about your value proposition. You may consider online survey tools\* as a secondary means by which to generate more data.
- Update your business model canvas based on your findings
- Start to populate customer discovery tool (your customer discovery narrative on LaunchPad Central)
- Identify your path to commercialization (IP/licensing/startup/unknown)

### PRESENTATION FORMAT:

**Slide 1:** Cover slide (Team member names, Team name, Team number) and your business thesis (who is my customer, what is my product, why will they buy it) AND number of customer interviews completed since you last presented plus total number of interviews

**Slide 2 - n:** What did you learn about your value proposition from talking to your customers?

*Hypothesis:* Here's What We Thought

*Experiments:* So Here's What We Did

*Results:* So Here's What We Found

*Iterate:* So Here's What We Are Going to Do Next

**Final Slide:** Current business model canvas with any changes marked; **Must use the BMC in LPC and export from LPC to your presentation**

**Upload your presentation, in PDF format to Dropbox by 7:00 AM LOCAL TIME**

\* *Survey tools are not means to conduct customer interviews, and survey responses may not be counted as unique customer contacts. Surveys are most useful for collecting quantitative data on subjects for which responses are finite and follow-up minimal. Surveys cannot, however, compare with live interviews, wherein respondents' answers to open-ended questions can drive follow up that digs deeper and ascertains a deeper understanding of respondent pain-points, needs, priorities, etc.*



### DAY MONTH DATE - Class 3

Time	Session
8:30 – 8:40 am	<b>Day 3 Introduction</b> A brief introduction by NSF
8:40 – 11:00 am	<b>Team Presentations</b> Teams present their business model canvas in three concurrent tracks. Each Team is allotted 15 minutes total to include 10 minutes for presentation, 5 minutes for Teaching Team comments.
11:00 – 12:00 pm	<b>Lecture 3: Customers/Users/Payers</b> Who's the customer? User? Payer? How are they different? Why do they buy? How can you reach them? How is a business customer different from a consumer? What's a multi-sided market? What's segmentation? What's an archetype?
12:30 – 1:30 pm	<b>WebEx Training and Send off</b> Learn the expectations and protocol for the 5 online classes. Preflight and checkout of your computer and headset for use in remote lectures. Configuration support for hardware and software.

## Assignment for Class #4 DAY MONTH DATE for Class #4 Tuesday J

### READ:

- *Business Model Generation, Customer Insights* pages 127-133 [1764-1876]
- *The Startup Owner's Manual, Channel Hypothesis* pages 98–111 [97-111], and *Customer Discovery Phase Two*, 189-255 [189-255] and *Get Out of the Building Test, Sell Channel Partners* 406–412 [405-412]

### WATCH:

- Sign into LaunchPad Central and watch *Lecture 4 – Distribution Channels*:  
<https://www.launchpadcentral.com/videos/series>  
<https://www.launchpadcentral.com/videos/series>

### ASSIGNMENT:

- Talk to ~15 customers face to face. Draw a customer diagram
- Describe your customer archetypes. What were your hypotheses about who your users and customers were? Did you learn anything different?
- Create a petal diagram of your ecosystem
- Did anything change about your Value Proposition?
- What do customers say their problems/needs are? How do they solve this problem(s) today? Does your value proposition solve it? How?
- What was it about your product that made customers interested? Excited?
- If your customer is part of a company, who is the decision maker, how large is their budget, what are they spending it on today, and how are they individually evaluated within that organization, and how will this buying decision be made?
- Update your customer discovery narrative and canvas

### PRESENTATION FORMAT:

**Slide 1:** Cover slide (Team member names, Team name, Team number) and your business thesis (who is my customer, what is my product, why will they buy it), AND number of customer interviews completed since you last presented plus total number of interviews.

**Slide 2- n:** What did you learn about your customer segments from talking to your customers? Include your customer diagram and petal diagram in your slides.

*Hypothesis:* Here's What We Thought

*Experiments:* So Here's What We Did

*Results:* So Here's What We Found

*Iterate:* So Here's What We Are Going to Do Next

**Final Slide:** Current business model canvas with any changes marked; **Must use the BMC in LPC and export from LPC to your presentation.**

**Upload your presentation, in PDF format to Dropbox by Midnight local time**

**WebEx Classes: DAY, 1:00 - 4:00pm**

**ALL TIMES ARE EASTERN**

**WebEx #1 - DAY MONTH DATE - Class 4**

<b>Time</b>	<b>Session</b>
12:30 – 1:00 pm Eastern Standard Time	<b>Test WebEx</b>  The online classrooms will be open for half hour prior to when the Team Presentation time begins. Log on during this time to test video, sound and troubleshoot technical issues, <i>even if you are not scheduled to present until 2:30, log on during this time to test your system.</i> <b>Please sign in to WebEx using the following convention TeamNumber_Your Name_Role, e.g., 201_John Smith_EL</b>
	<b>Team Presentations: Block A and Block B</b>  Teams present their business model canvas in a Webex Room. 3-4 teams will be chosen to present in either Block A (1:00-2:30 PM EST) or Block B (2:30-4:00 PM EST) and then will be asked to log-off. Teams are only asked to participate in one room and one block and may not request to be placed in a specific presentation block.
1:00 – 2:30 pm EST	<b>Team Presentations Block A</b>  Teams present their business model canvas in three concurrent Webex Rooms. 3-4 teams will be assigned to present from 1:00 – 2:30 pm in each room. Each Team is allotted 12 minutes total.  During each presentation, the Instructors will facilitate a discussion among all the EL's in the session directed at each team's presentation and will also facilitate a discussion aimed at the week's assignment: Distribution Channels.
2:30 – 4:00 pm EST	<b>Team Presentations Block B</b>  Teams present their business model canvas in three concurrent Webex Rooms. 3-4 teams will be assigned to present from 2:30 – 4:00 pm in each room. Each Team is allotted 12 minutes total.  During each presentation, the Instructors will facilitate a discussion among all the EL's in the session directed at each team's presentation and will also facilitate a discussion aimed at the week's assignment: Distribution Channels

## Assignment for Class #5 DAY MONTH DATE Assignment for Class #5

### READ:

- *The Startup Owner's Manual, Customer Discovery Phase Three*, pages 227–256 [227-256], *Get Ready to Sell*, 332–342 [331-342]
- For web teams: *The Startup Owner's Manual, Low Fidelity MVP* pages 211–217 [210-217]

### WATCH:

- Sign into LaunchPad Central and watch *Lecture 5 – Customer Relationships*  
<https://www.launchpadcentral.com/videos/series>  
<https://www.launchpadcentral.com/videos/series>

### ASSIGNMENT:

- Talk to ~15 channel partners and/or customers. Draw channel diagrams
- Draw distribution complexity
- Get out of the building and talk to ~15 potential channel partners face-to-face (Salesmen, OEM's distributors, etc.)
- What were your hypotheses about who/what your channel would be? Did you learn anything different?
- Did anything change about Value Proposition?
- Update your customer discovery narrative and canvas

### FOR WEB TEAMS:

- Get a low-fidelity web site up and running. (Relevant reading: See *The Startup Owner's Manual* page 211–217) [210-217]

### PRESENTATION FORMAT:

**Slide 1:** Cover slide (Team member names, Team name, Team number) and your business thesis (who is my customer, what is my product, why will they buy it), AND number of customer interviews completed since you last presented plus total number of interviews

**Slide 2 - n:** What did you learn about your channel from talking to your customers? Include your channel diagram and distribution complexity.

*Hypothesis:* Here's What We Thought

*Experiments:* So Here's What We Did

*Results:* So Here's What We Found

*Iterate:* So Here's What We Are Going to Do Next

**Final Slide:** Current business model canvas with any changes marked; **Must use the BMC in**

LPC and export from LPC to your presentation.

Upload your presentation, in PDF format to Dropbox by Midnight local time.

WebEx Classes: **DAY**, 1:00 - 4:00pm

ALL TIMES ARE EASTERN

### WebEx #2 – **DAY MONTH DATE** - Class 5

Time	Session
12:30 – 1:00 pm Eastern Standard Time	<b>Test WebEx</b>  The online classrooms will be open for half hour prior to when the Team Presentation time begins. Log on during this time to test video, sound and troubleshoot technical issues, <i>even if you are not scheduled to present until 2:30, log on during this time to test your system.</i> <b>Please sign in to WebEx using the following convention: TeamNumber_Your Name_Role, e.g., 201_John Smith_EL</b>
	<b>Team Presentations: Block A and Block B</b>  Teams present their business model canvas in a Webex Room. 3-4 teams will be chosen to present in either Block A (1:00-2:30 PM EST) or Block B (2:30-4:00 PM EST) and then will be asked to log-off. Teams are only asked to participate in one room and one block and may not request to be placed in a specific presentation block.
1:00 – 2:30 pm EST	<b>Team Presentations Block A</b>  Teams present their business model canvas in three concurrent Webex Rooms. 3-4 teams will be assigned to present from 1:00 – 2:30 pm in each room. Each Team is allotted 12 minutes total.  During each presentation, the Instructors will facilitate a discussion among all the EL's in the session directed at each team's presentation and will also facilitate a discussion aimed at the week's assignment: Customer Relationships: Get, Keep, Grow
2:30 – 4:00 pm EST	<b>Team Presentations Block B</b>  Teams present their business model canvas in three concurrent Webex Rooms. 3-4 teams will be assigned to present from 2:30 – 4:00 pm in each room. Each Team is allotted 12 minutes total.  During each presentation, the Instructors will facilitate a discussion among all the EL's in the session directed at each team's presentation and will also facilitate a discussion aimed at the week's assignment: Customer Relationships:

	Get, Keep, Grow
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## Assignment for Class #6 DAY MONTH DATE for Class #6

### READ:

- *The Startup Owner's Manual, Introduction to Customer Validation* pages 277–331 [277-331]

### WATCH:

- *Watch:* Mark Pincus, “Quick and Frequent Product Testing and Assessment”, <http://ecorner.stanford.edu/authorMaterialInfo.html?mid=2313>
- Sign into LaunchPad Central and watch *Lecture 6 – Revenue Model*  
<https://www.launchpadcentral.com/videos/serieshttps://www.launchpadcentral.com/videos/series>

<https://www.launchpadcentral.com/videos/series>

### ASSIGNMENT:

- Talk to customers
- Build demand creation budget and forecast.
- What is your customer acquisition cost?
- Did anything change about Value Proposition or Customers/Users?
- What is your customer lifetime value? Channel incentives – does your product or proposition extend or replace existing revenue for the channel?
- What is the “cost” of your channel, and its efficiency vs. your selling price?
- Update your customer discovery narrative and canvas.

### PRESENTATION FORMAT:

**Slide 1:** Cover slide (Team member names, Team name, Team number) and your business thesis (who is my customer, what is my product, why will they buy it), number of total customer contacts AND number of customer interviews completed since you last presented plus total number of interviews

**Slide 2 - n:** What did you learn about how to Get, Keep and Grow your customers? Include your demand creation and budget forecast in your slides.

*Hypothesis:* Here's What We Thought

*Experiments:* So Here's What We Did

*Results:* So Here's What We Found

*Iterate:* So Here's What We Are Going to Do Next

**Final Slide:** Current business model canvas with any changes marked; **Must use the BMC in LPC and export from LPC to your presentation.**

**Upload your presentation, in PDF format to Dropbox by Midnight local time.**

**WebEx Classes: DAY, 1:00 - 4:00pm**

**ALL TIMES ARE EASTERN**

**WebEx #3 – DAY MONTH DATE - Class 6**

<b>Time</b>	<b>Session</b>
12:30 – 1:00 pm Eastern Standard Time	<b>Test WebEx</b>  The online classrooms will be open for half hour prior to when the Team Presentation time begins. Log on during this time to test video, sound and troubleshoot technical issues, <i>even if you are not scheduled to present until 2:30, log on during this time to test your system.</i> <b>Please sign in to WebEx using the following convention TeamNumber_Your Name_Role, e.g., 201_John Smith_EL</b>
	<b>Team Presentations: Block A and Block B</b>  Teams present their business model canvas in a Webex Room. 3-4 teams will be chosen to present in either Block A (1:00-2:30 PM EST) or Block B (2:30-4:00 PM EST) and then will be asked to log-off. Teams are only asked to participate in one room and one block and may not request to be placed in a specific presentation block.
1:00 – 2:30 pm EST	<b>Team Presentations Block A</b>  Teams present their business model canvas in three concurrent Webex Rooms. 3-4 teams will be assigned to present from 1:00 – 2:30 pm in each room. Each Team is allotted 12 minutes total.  During each presentation, the Instructors will facilitate a discussion among all the EL's in the session directed at each team's presentation and will also facilitate a discussion aimed at the week's assignment: Revenue Model
2:30 – 4:00 pm EST	<b>Team Presentations Block B</b>  Teams present their business model canvas in three concurrent Webex Rooms. 3-4 teams will be assigned to present from 2:30 – 4:00 pm in each room. Each Team is allotted 12 minutes total.  During each presentation, the Instructors will facilitate a discussion among all the EL's in the session directed at each team's presentation and will also facilitate a discussion aimed at the week's assignment: Revenue Model
4:00 – 4:30 pm EST	<b>Mentor Meeting (Mentors only)</b>  This is an opportunity for mentors and the Teaching Team to check in. How is your Team progressing? How can we support one another?

## Assignment for Class #7 DAY MONTH DATE Class #7

### READ:

- *The Startup Owner's Manual, Customer Discovery Phase Four*, pages 257–270 [257-269] and *Customer Validation Phase Four*, 429–459 [428-459]
- *Business Model Generation, Evaluating, Business Models*, pages 212–225 [3412-3515]
- Review resources on final presentations as assigned

### WATCH:

- Sign into LaunchPad Central and watch *Lecture 7 – Partners*  
<https://www.launchpadcentral.com/videos/series>
- Watch the David Riemer series of videos on using storytelling to communicate your I-Corps learning journey <http://venturewell.org/i-corps/llp/videos/david-riemer/>
- Watch sample videos from previous cohorts, which are available for your reference at <http://venturewell.org/i-corps/team-materials/>

### ASSIGNMENT:

- Talk to customers
- What's the revenue model strategy?
- What are the pricing tactics?
- Draw the diagram of payment  
flows<http://steveblank.files.wordpress.com/2011/05/payment-flow.jpg>
- What are the metrics that matter for your business model?
- Test pricing in front of 100 customers on the web, 10–15 customers non-web
- Update your customer discovery narrative and canvas

### PRESENTATION FORMAT:

**Slide 1:** Cover slide (Team member names, Team name, Team number) and your business thesis (who is my customer, what is my product, why will they buy it), AND number of customer interviews completed since you last presented plus total number of interviews.

**Slide 2 - n:** What did you learn about your revenue model? Include your revenue model strategy, pricing tactics and diagram of payment flows in your slides.

*Hypothesis:* Here's What We Thought

*Experiments:* So Here's What We Did

*Results:* So Here's What We Found

*Iterate:* So Here's What We Are Going to Do Next

**Final Slide:** Current business model canvas with any changes marked; **Must use the BMC in LPC and export from LPC to your presentation.**

**Upload your presentation, in PDF format to Dropbox by Midnight local time.**



**WebEx Classes: DAY, 1:00 - 4:00pm**

**ALL TIMES ARE EASTERN**

**WebEx #4 – DAY MONTH DATE - Class 7**

Time	Session
12:30 – 1:00 pm Eastern Standard Time	<b>Test WebEx</b>  The online classrooms will be open for half hour prior to when the Team Presentation time begins. Log on during this time to test video, sound and troubleshoot technical issues, <i>even if you are not scheduled to present until 2:30, log on during this time to test your system.</i> <b>Please sign in to WebEx using the following convention: TeamNumber_Your Name_Role, e.g., 201_John Smith_EL</b>
	<b>Team Presentations: Block A and Block B</b>  Teams present their business model canvas in a Webex Room. 3-4 teams will be chosen to present in either Block A (1:00-2:30 PM EST) or Block B (2:30-4:00 PM EST) and then will be asked to log-off. Teams are only asked to participate in one room and one block and may not request to be placed in a specific presentation block.
1:00 – 2:30 pm EST	<b>Team Presentations Block A</b>  Teams present their business model canvas in three concurrent Webex Rooms. 3-4 teams will be assigned to present from 1:00 – 2:30 pm in each room. Each Team is allotted 12 minutes total.  During each presentation, the Instructors will facilitate a discussion among all the EL's in the session directed at each team's presentation and will also facilitate a discussion aimed at the week's assignment: Partners  <b>There will also be a short discussion in each room: How to Tell Your Story.</b> In preparation for your final presentations and video, we will discuss the key elements of telling your story.
2:30 – 4:00 pm EST	<b>Team Presentations Block B</b>  Teams present their business model canvas in three concurrent Webex Rooms. 3-4 teams will be assigned to present from 2:30 – 4:00 pm in each room. Each Team is allotted 12 minutes total.  During each presentation, the Instructors will facilitate a discussion among all the

	EL's in the session directed at each team's presentation and will also facilitate a discussion aimed at the week's assignment: Partners
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**There will also be a short discussion in each room: How to Tell Your Story.** In preparation for your final presentations and video, we will discuss the key elements of telling your story.

## Assignment for Class #8 **DAY MONTH DATE** for Class #8 Tuesday

### READ:

- Review *Business Model Generation, Business Model Environment*, pages 200–211 [3096-3140]
- Review *The Startup Owner's Manual, Get Out of the Building Test, Sell* pages 406–412 [405-412]

### WATCH:

- Sign in and watch *Lecture 8 – Key Resources*:  
<https://www.launchpadcentral.com/videos/series>

<https://www.launchpadcentral.com/videos/series>

### ASSIGNMENT:

- Submit a draft of your 2-minute Lessons Learned video (instructions, pg. 23).
  - Your video should be near complete, but do not reveal your final Go/No-Go decision if this is still TBD and will require additional edits after feedback from the Teaching Team.
  - Your video should be <50 MB (sizes can be reduced in editing software)
  - Submit according to your TA's instructions
  - Note that as back-up, we will ask that you upload your **final** video to YouTube and include links to the videos in your final Lessons Learned PowerPoint
- What partners will you need?
- Why do you need them and what are the risks?
- Why will they partner with you?
- What's the cost of the partnership?
- Talk to actual partners/potential partners.
- What are the benefits for an exclusive partnership?
- Did anything change about Value Proposition or Customers/Users, Channel, Demand Creation?
- What are the incentives and impediments for the partners?
- Update your customer discovery narrative and canvas.

### PRESENTATION FORMAT:

**Slide 1:** Cover slide (Team member names, Team name, Team number) and your business thesis (who is my customer, what is my product, why will they buy it), AND number of customer interviews completed since you last presented plus total number of interviews

**Slide 2 - n:** What did you learn about partners? Include items from the above assignment in your slides.

*Hypothesis:* Here's What We Thought

*Experiments:* So Here's What We Did

*Results:* So Here's What We Found

*Iterate:* So Here's What We Are Going to Do Next

**Final Slide:** Current business model canvas with any changes marked; **Must use the BMC in LPC and export from LPC to your presentation.**

**Upload your presentation, in PDF format to Dropbox by Midnight local time.**

**WebEx Classes: DAY, 1:00 - 4:00pm**

**ALL TIMES ARE EASTERN**

**WebEx #5 - DAY MONTH DATE - Class 8**

Time	Session
12:30 – 1:00 pm Eastern Standard Time	<b>Test WebEx</b>  The online classrooms will be open for half hour prior to when the Team Presentation time begins. Log on during this time to test video, sound and troubleshoot technical issues, <i>even if you are not scheduled to present until 2:30, log on during this time to test your system.</i> <b>Please sign in to WebEx using the following convention: TeamNumber_Your Name_Role, e.g., 201_John Smith_EL</b>
	<b>Team Presentations: Block A and Block B</b>  Teams present their business model canvas in a Webex Room. 3-4 teams will be chosen to present in either Block A (1:00-2:30 PM EST) or Block B (2:30-4:00 PM EST) and then will be asked to log-off. Teams are only asked to participate in one room and one block and may not request to be placed in a specific presentation block.
1:00 – 2:30 pm EST	<b>Team Presentations Block A</b>  Teams present their business model canvas in three concurrent Webex Rooms. 3-4 teams will be assigned to present from 1:00 – 2:30 pm in each room. Each Team is allotted 12 minutes total.  During each presentation, the Instructors will facilitate a discussion among all the EL's in the session directed at each team's presentation and will also facilitate a discussion aimed at the week's assignment: Key Activities, Resources, Costs
2:30 – 4:00 pm EST	<b>Team Presentations Block B</b>  Teams present their business model canvas in three concurrent Webex

Rooms. 3-4 teams will be assigned to present from 2:30 – 4:00 pm in each room. Each Team is allotted 12 minutes total.

During each presentation, the Instructors will facilitate a discussion among all the EL's in the session directed at each team's presentation and will also facilitate a discussion aimed at the week's assignment: Key Activities, Resources, Costs

## Assignment for Class #9 DAY MONTH DATE for Class #9

### READ:

- *The Startup Owner's Manual Key Resources Hypothesis*, pages 169–175 [168-179]

### ASSIGNMENT:

- Talk to customers
- Assemble a resources assumptions spreadsheet: people, hardware, software, prototypes, financing, etc.
- When will you need these resources?
- Where is your cash flow break-even point?
- What are the key financials metrics for *costs* in your business model?
- Costs vs. ramp vs. product iteration?
- Roll up all the costs from partners, resources and activities in a spreadsheet by time

### PRESENTATIONS:

A 10-minute Lessons Learned Presentation

A 2-minute Lessons Learned Video (final version)

*Sample presentations from previous cohorts are available for your reference at*

<http://venturewell.org/i-corps/team-materials/http://venturewell.org/i-corps/team-materials/>

<http://venturewell.org/i-corps/team-materials/>

**See next page for presentation & video specifications**

### Sharing:

1. Final videos should be <50 MB each (sizes can be reduced in editing software).
2. Upload your final presentation (PDF format) and videos to **Dropbox by 7:00 AM local time.**
3. As back up, please also A) upload your videos to YouTube and include links to the videos in your PowerPoint, and B) e-mail links to your TA.

## 10-minute Lessons Learned Presentation

This will be different from your previous presentations as the objective is to ***tell the story of your journey*** through the Customer Discovery process.

This presentation should:

- Tell a story of what you did (e.g. customer discovery, mistakes, etc.) and what you learned
- Focus on insights rather than data points
- Highlight your “a-ha!” moment(s)
- Include images and graphics that support your story
- Text should be brief and legible (i.e., large enough to be read)

The slides **require** some standard content for documentation for NSF. Your slides must:

- Begin with an introduction of your Team (Team name and number, member names and roles, total interviews completed, and total *in-person* interviews).
- Include multiple iterations of the Business Model Canvas (including first, last, and points of critical pivots) and diagrams. Make sure these slides are legible, in a large enough font to be read and understood.
- End with a slide including your Go/No-Go decision (see definition on page 25.) and links to your videos (Lessons Learned and Technical) on YouTube.

Your slide deck should support your storytelling: don’t present a narration of your slides. Your presentation should be a dynamic and engaging delivery of your Team’s story.

**The following is a sample of an appropriate set of slides for this presentation:**

**Slide 1:** Team Name, total number of interviews, total number of in-person interviews & a couple lines about what your initial idea was and the size of the opportunity

**Slide 2:** Team members – name, background, expertise and your role for the Team

**Slide 3:** Business Model Canvas, Version 1. (Verbally address, “Here was our original idea...”, make sure this is legible, use a large font)

**Slide 4:** “Here’s what we did...” (explain how you got out of the building, who you met, etc., e.g.:

display logos and photos of customers, or a map of the territory covered)

- Slide 5:** “What we found was...” (reality); Include illustration of customer archetype or market size diagram to show what was learned from this new information
- Slide 6:** Business Model Canvas, Version 2, illustrating iteration or pivot... Explain why and what you found. We then advanced this hypothesis... **Must use the BMC in LPC and export from LPC to your presentation**
- Slide 7:** So here’s what we did (explain how you got out of the building); perhaps include photos of the countryside or the factory you visited.
- Slide 8:** And here’s what we found (what was reality); including a photo and great quote the summarizes a key lesson learned; so then...
- Slide 9:** Your distribution channel diagram may illustrate what you learned.
- Slide 10:** Business Model Canvas Version 3. We iterated or pivoted... explain why & what you found.
- Slide 11:** Etc., etc., etc.

**Final Slide:** Clearly states “Go” or “No Go” and includes links to your videos on YouTube.

### **2-Minute Lessons Learned /Video**

Create a two-minute video that tells a story. This is not a demonstration of scientific prowess. We want to hear about your journey through the NSF I-Corps™ as it relates to your business. The more specific you can make it, the more specific details you can include, the more specifically you can describe answers to the question below, the better. Here’s a quick outline that should aim you in the right direction:

- What are your names and what is your Teams' name? Introduce yourselves. Pan the camera around your office so we can see where you work.
- What scientific discipline are you working in?
- When you started the class, what was the most important thing you thought you would have to do to successfully launch a scalable startup? How do you feel about that now?
- Thinking back across the class, who was the most interesting customer you met and where did you meet them? What happened?
- Now that the class is over, what was the most surprising thing you learned in the class?

Please do not spend any time thanking the Teaching Team or the NSF. This video is about your company and about you. Time limit is 2 minutes, so keep it short and to the point. And no need to get high tech. Grab an iPhone and shoot with the camera.

Watch the David Riemer series of videos on using storytelling to communicate your I-Corps learning journey [http://venturewell.org/i-corps/llpvideos/david-riemer/http://venturewell.org/i-](http://venturewell.org/i-corps/llpvideos/david-riemer/http://venturewell.org/i-corps/llpvideos/david-riemer/)

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http://venturewell.org/i-corps/llpvideos/david-riemer/](http://venturewell.org/i-corps/llpvideos/david-riemer/)

Sample videos from previous cohorts are available for your reference at

[http://venturewell.org/i-corps/team-materials/http://venturewell.org/i-corps/team-materials/  
http://venturewell.org/i-corps/team-materials/http://venturewell.org/i-corps/team-materials/  
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### **1-Minute Technical Video**

NSF and the I-Corps Teaching Team would also like you to produce a short, technically focused

video appropriate for a technically educated audience. This assignment challenges you to use what you have learned to concisely describe the technical aspects of your project with the value proposition and customer archetype in mind. The ability to do this effectively will be critical when making future pitches or if applying for SBIR.

Consider the audience for this video to be people who are technically well versed enough to understand your project, your process, your lab, your equipment, and your approach at a general level; perhaps like someone you might meet at a technical conference focused on your general area of expertise. This video is a great place to include hero shots of your testing apparatus, your lab filled with bubbling chemistry experiments, or awesome computer graphics simulations of your experiments running on the International Space Station in zero gravity.

**All final presentations and videos must be uploaded by 7:00 AM local time on the final day.**

### **Basic Video Production Tips**

Your videos do not require high production value. You need not purchase fancy recording equipment or expensive editing software. You *DO* need to adequately convey your message. Here are a few things you can do – for free – to improve the quality of your video.

#### ***Audio:***

- Find a quiet space or reduce competing noise before recording (listen for ventilation systems, machinery humming, wind, background activity)
- Get the microphone as close to your subject as possible
- Have subjects speak toward the camera as much as possible
- If you add background music, make sure that it complements, not distracts from, your presentation (and if it's too loud, it will definitely distract!)

#### ***Lighting:***

- Make sure there is adequate light where you are recording. When in doubt, go brighter.
- For interview subjects, alter the lighting, or identify an interview location, where the subject will be lighted equally on both sides (otherwise one side of the subject will be in shadow and the contrast enhances the perception of darkness)
- If you shoot outdoors, make sure that the sun doesn't shine directly in your subject's eyes or directly into the camera

#### ***Presentation:***

- Smile and show your enthusiasm for your subject
- Before you start talking, take a deep breath, pause and smile – this not only will prepare you for recording but will provide a natural spot to trim off any excess video during editing
- Speak slowly and clearly.
- Use hand gestures if you like, but not too wildly.

### ***Other production tips:***

- Use a tripod, or rest the camera on a stable platform to ensure that the video is steady and not crooked
- Consider recording some segments twice – once close up and once farther away, so in the “editing room” later, you may cut together the shots to provide some variety, or you can select the version for which picture and audio turned out best

### **Looking to use free editing software?**

- iMovie comes free with Apple hardware
- PC users can download a free, 30-day trial of Camtasia: [www.camtasiastsoftware.com](http://www.camtasiastsoftware.com)

### **The Go/No-Go Decision**

This is a guide to the “Go/No-Go” decision. This is always a challenging assessment. We recognize that this is an interim assessment, for even as you complete the I-Corps program, you have most likely not completed all the customer discovery required to totally assess your venture. Nor have you likely had the time to explore every potential market for, or application of, your technology. This is true of even the most promising opportunities. The key at this point is to make an evidenced based decision, based on the evidence you gathered in the customer discovery process.

The criteria for a “Go” decision is that you have validated clear “Product > Market Fit.” Ask yourself: “have we identified a business worth pursuing?” If the answer is yes, then you will be asked to provide evidence to support your decision.

If you answer no, you will be asked to explain your answer and whether you will continue to pursue product > market fit for the existing idea, pivot to different applications of the core technical capability, or abandon efforts to commercialize the technology and move on. All answers are equally acceptable – as long as they are evidence based.

## DAY MONTH DATE - Class 9

Time	Session
12:00 – 12:15 pm	<b>Welcome back Lunch</b>
12:15 – 1:00 pm	<b>Effectively Communicating Your I-Corps Learning Journey Story</b>
1:00 – 4:30 pm	<p><b>Individual Team Meeting with Faculty</b></p> <p>Faculty will meet with teams individually. Each team will discuss with the faculty their assessment of their key learnings, “go/no-go status” and next steps.</p> <p><b>Workshop: Developing Effective Presentations</b></p> <p>When not in their individual team presentation, teams will work on their presentations, and seek feedback from faculty co-instructors [and a storytelling expert if available]. These meetings will be informal and intended to provide helpful coaching.</p>
4:30 – 5:15 pm	<p><b>SBIR 101</b></p> <p>The basics of the SBIR program and how the funding process works.</p>
5:15 – 6:00 pm	<p><b>What's Next?</b></p> <p>Assess the readiness of your technology and your Team. Explore next steps and learn about IP, incorporation and funding options.</p>

## DAY MONTH DATE – Final Presentations

Time	Session
8:00 – 8:15 am	<b>VentureWell presentation</b>
8:15 – 3:00 pm	<p><b>Team presentations</b></p> <p>Teams present to the entire class. Each Team is allotted 15 minutes total to include the 2-minute Lessons Learned Video followed by the 10-minute Lesson Learned Presentation and 3 minutes of Teaching Team comments.</p>
3:00 – 4:30 pm	<b>Closing session</b>

## Glossary of common terms and acronyms:

**Agile development:** Iterative and incremental development, where solutions evolve through collaboration

**Business Model Canvas:** template for developing and documenting new business models, made up of 9 key building blocks

**Customer archetype:** fictional character created to represent the different user types within a targeted demographic, attitude and/or behavior set that might use a site, brand or product in a similar way.

**Customer discovery:** Process of asking questions to understand needs and pain points of potential customers

**EL:** Entrepreneurial Lead; often a grad student or post-doc

**IM:** Industry Mentor; generally referred to as the Mentor

**Innovation Corps or I-Corps™:** pronounced I-CORE, the *ps* is silent

**IP:** Intellectual Property such as discoveries and inventions, often protected by patents and trademarks

**LPC:** LaunchPad Central; Online platform for tracking your progress through the I-Corps™ program

**MVP:** Minimum Viable Product; the basic product (or service) you can take to market

**NCIIA:** See VentureWell

**NDA:** Non-Disclosure Agreement; confidentiality agreement

**Node:** Nodes support regional needs for innovation education, infrastructure and research and work cooperatively to build, utilize and sustain a national innovation ecosystem.

**NSF:** National Science Foundation

**OEM:** Original Equipment Manufacturer

**Peer Review Document:** An online document for comments and suggestions

**PI:** Principle Investigator

**SAM:** Served Available Market

**TA:** Teaching Assistant

**TAM:** Total Available Market

**Teaching Team:** The class instructors; usually serial entrepreneurs, entrepreneurial educators and technologists

**Value Proposition:** What value do we deliver to the customer? What customer needs are we satisfying?

**VC:** Venture Capitalist; a person (or organization) who provides capital to startup ventures

**VentureWell:** A higher education network that cultivates revolutionary ideas and promising inventions. NSF's I-Corps partner with curriculum development and logistics.