WHAT IS INNOVATION?

MYTH: Innovation = New Products

REALITY =
Innovation Comes in Several Flavors
Creating a market need when logic says one might not exist!

--- Joseph Schumpeter, 1934

1) The introduction of a new good—that is one with which consumers are not yet familiar—or of a new quality of a good. 2) The introduction of a new method of production, which need by no means be founded upon a discovery scientifically new, and can also exist in a new way of handling a commodity commercially. 3) The opening of a new market, that is a market into which the particular branch of manufacture of the country in question has not previously entered, whether or not this market has existed before. 4) The conquest of a new source of supply of raw materials, or half-manufactured goods, again irrespective of whether this source already exists or whether it has first to be created. 5) The carrying out of the new organization of any industry, like the creation of a monopoly position or the breaking up of a monopoly position.
Innovation is the ability to **significantly and continuously differentiate** from potential competition so as to create **superior and sustainable stakeholder value** (profitability, growth as well as societal good).

**THE TRUTH ABOUT INNOVATION**

**MYTH:**

**Complexity = Innovation**

**Complexity** (additional functionality) is not necessarily innovation

**FACTS**

**HOW DO YOU TURN ON THE #&!@%^ AIR?**

A.J.D. Power study finds luxury cars like Mercedes and BMW overloaded with complexity

**RELIABILITY ISN'T EVERYTHING**

Peugeot 408, Honda Civic, and Hyundai i40 rated worst

**SOFTWARE DRAPES**

Mercedes-Benz, Audi, and BMW rank highest

**SAFETY FACTORS**

Cruise control, adaptive brake lights, and lane departure warning score highest

**OVERALL**

Satisfaction, service, and value for money score highest

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*Source: Bloomberg, June 2014*
BE CAREFUL: THE COMPLEXITY FROWN CURVE

Myth: Ideas are Hard to Find

Reality: Ideas are Everywhere

Myth: Innovation is a Single Moment of Brilliance
Myth: The Lone Genius Syndrome

Reality: Breakthrough Ideas Result from Layering of Many Ideas

Myth: Innovation is Domain of Creatives

Myth: Innovation is Pursuing Big Bang Projects

Reality: Innovation = Continuous Process of Differentiation
Ingredients of Innovation Process

CLEAR CRITERIA

EXPERIMENTAL CAPITAL

RAPID FEEDBACK PROCESS

Establishing an Innovation Culture:

Ensuring Innovation:
Let a Thousand Ideas Bloom

Feedback is The Lifeblood of Innovative Companies

Transparency & Review of “Work in Process”

“Post Mortems” As critical after successes as after failures
8 INGREDIENTS OF A CREATIVE CULTURE...

CUSTOMER-INCLUSIVE INNOVATION PROCESS
ISK SEEKING BEHAVIOR ENCOURAGED
XPERIMENTAL APPROACH
COMODATING OF ALL THINKING STYLES
OLEANCE FOR FAILURE
NTOLERANCE FOR INCREMENTALISM
ERSATILITY OF EMPLOYEES
JOY WORK

ENSURING INNOVATION: CREATING OPENNESS

THE CUSTOMER INCLUSIVITY MINDSET

THE CASE FOR CUSTOMER INCLUSION IN INNOVATION PROCESS

Market pull because...
companies only invent "better mouse traps" that no one needs

Idea push because...
may lead to products that lack "long-term" value

60 - 80%
20 - 40%

% of successful innovations

Source: Prof. Eric von Hippel, MIT
THE DANGER OF ASKING CUSTOMERS: FOR INPUT INNOVATION

“Had I asked end customers, all they would have said is that they need a faster horse.”
- Henry Ford

Uncovering the Unarticulated Customer Needs: Focus Groups (if you have to) OR (Net)Ethnographic Methods

**ASK**
- **What is not working?** or better still… “What do you hate about our product?”
- “What do they say to each other about our products?”
- “What do they say are the current challenges they face in consuming your (& your competitors) products?”

**WATCH**

**LISTEN**

IMPROVING CUSTOMER EXPERIENCE FREQUENTLY

CLIMBING THE MT. EVEREST OF INNOVATION

CREATING NEW NEEDS (EVEN CUSTOMERS DON’T KNOW)

ANTICIPATING (AND MEETING) CUSTOMERS’ FUTURE NEEDS

MEETING CUSTOMERS’ UNMET NEEDS

THE EXPERIMENTAL MINDSET
“The way to succeed is to double your failure rate.”

— Thomas J. Watson, Sr.
IBM founder

Don’t fall for the “fail fast” fantasy

THE EXPERIMENTAL MINDSET: FAIL “SMART”

Design “Smart” Business Experiments

- Field is your lab
- Isolate impact
- Have success & failure together
- Explore why you failed
- Build on each experiment

SMART BUSINESS EXPERIMENTS

- Our A/B tests show that orange buttons get 5% more clicks than green.
- I have now officially lost all faith in human intelligence.
- Stick sure I feel with the liberated brain the tyranny of thinking.

Lab
Designing Smart Business Experiments

- 1 clear metric to measure differences
- Control versus Test Group
  - ideally change only one parameter at a time in the test group
  - All variables, except the variable being tested are controlled for (or kept constant between the two groups)
  - GOAL: the only difference between the groups is the only variable whose influence you are interested in

A/B TESTING (a.k.a. Split Testing)
Way of Life on the Internet

<table>
<thead>
<tr>
<th>Variation A</th>
<th>Variation B</th>
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<tbody>
<tr>
<td>50% visitors see variation A</td>
<td>50% visitors see variation B</td>
</tr>
<tr>
<td>23% conversion</td>
<td>11% conversion</td>
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ENGAGING CUSTOMERS IN INNOVATION: THE ROLE OF CROWDSOURCING

<table>
<thead>
<tr>
<th>Technologically Advanced</th>
<th>Design Kits (e.g. Lego)</th>
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<tbody>
<tr>
<td>Lead User Methodology (e.g. Nivea)</td>
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<th>Anthro-</th>
<th>Crowd-</th>
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<tr>
<td>pological Approach</td>
<td>-sourcing</td>
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<td>Focus Groups</td>
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<tr>
<th>ENGAGEMENT METHOD</th>
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<tr>
<td>Observation</td>
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THE OPEN INNOVATION MINDSET: THE QUEST FOR WISDOM OF CROWDS
OPEN INNOVATION APPROACHES

## Lead User Methodology (e.g. 3M)

Crowdsourcing

Innovation Teams

Crowdsourcing

<table>
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<tr>
<th>A Few Experts</th>
<th>As Many Stakeholders</th>
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</table>

EXTERNAL SEARCH SPACE

THE BENEFITS OF CROWDSOURCING

1. Stakeholders (not just “Experts”) outside may be more to collectively innovate (address challenges).
2. Market bears the cost of experimentation/idea generation.
3. You (your organization) only acquire (pay for) winning ideas.
4. Overall, much faster innovation cycle as failures and successes occur simultaneously.

THE RISE OF CROWDSOURCING

CROWDSOURCING IS EVERYWHERE
Innovation Tournaments are yielding only “incremental ideas”.*

*Results of our initial interviews with industry partner firms

**SO WHAT IS WRONG?**

- Rely on individual brilliance rather than collective co-creation of innovation
- Focus on ideas rather than the entire gamut of knowledge required to solve the challenge
- Are opaque to the participants (submission to the sponsor)
- Have become very “winner takes all” large-prize events
How can Crowdsourcing (be managed to) Produce More Innovative Ideas?

**THE CHALLENGE IS...**

Corporate focus is only on increasing participation
But mere sharing ideas is not enough for novel knowledge creation
Need to design and manage open innovation efforts that promote COLLABORATION

**DIVERSITY IN COLLABORATION**
- Potentially Unlimited (Anyone in the World)
- Physical Space & Time: Constrained (Then & There)

**HOW COLLABORATION OCCURS**
- Collaborative Crowdsourcing: Dependent In-Person Together, Primarily Asynchronous
- Competitive Crowdsourcing: Primarily Asynchronous, Collaborative Crowdsourcing: Best Ideas + Best Collaborators

**THE FLAVORS OF CROWDSOURCING**
- Best Ideas
- Collaborative Crowdsourcing
- Competitive Crowdsourcing
- Range of Knowledge

**CROWD INCENTIVES**
- Ideas Posting
Collaborative Crowds: Producing More Innovation

Collaborative Crowd

Competitive Crowd

Novelty of Solutions

Implementability of solutions

Collaborative Crowd

Competitive Crowd

Results of our research study

Guiding the Crowds

Table 1: Instructions for Moving Knowledge Types

<table>
<thead>
<tr>
<th>Please post in any of the following categories:</th>
</tr>
</thead>
<tbody>
<tr>
<td>* Posts - Information you have related to the challenge question.</td>
</tr>
<tr>
<td>* Troubleshooting - Issues or conficts that could make a solution hard or impossible to achieve simultaneously (e.g., low cost and hard to manufacture).</td>
</tr>
<tr>
<td>* Examples - Illustrations or demonstrations that link the challenge to your own experiences, or connect across business contexts that may otherwise seem unrelated.</td>
</tr>
<tr>
<td>* Idea Seeds - Short statements that present early ideas that may serve as a catalyst for a comprehensive solution to the challenge.</td>
</tr>
<tr>
<td>* Integrative Solutions - Solutions that integrate across the examples, facts, troubleshoot and idea seeds posted by the crowd to solve the Challenge question.</td>
</tr>
</tbody>
</table>

When you post, indicate which category your post belongs in:

Vote for posts based on posts and comments based on how useful they are to formulate an integrative solution to the challenge.

Challenge Incentives

- **Outcome Incentives**
  - Cash/awards for Top 3 Ideas

- **Process based incentives**
  - Points for posting diverse knowledge, commenting, voting and integrating knowledge into solutions
  - Top 3 Collaborators get cash and recognition awards
  - Plus, this appeals to intrinsic motivation too

WHAT MOTIVATES EXTERNAL INNOVATORS?

The wide range of motivations that draw outside innovators to participate in a project can be classified into two broad categories: extrinsic and intrinsic. As a single approximation, markets tend to favor the former, and communities are more oriented toward the latter.

![Motivations Diagram](source: MIT Sloan Management Review)
I Would Spend 55 Minutes Defining the Problem and then Five Minutes Solving It

HYAIWYG  
(How You Ask is What You Get)

“What are the best practices for teaching a blended (online and “in person”) MBA program?
OUT OF THE BOX
DISPLACEMENT THINKING

TIME DISPLACEMENT
FROM NOW to THEN

OUT OF THE BOX
DISPLACEMENT THINKING

CONTEXT DISPLACEMENT
FROM HERE to THERE

OUT OF THE BOX
DISPLACEMENT THINKING

EXPERTISE DISPLACEMENT
FROM US to THEM

OUT OF THE BOX
PARADOXICAL THINKING

FASTER
HEALTHIER
FAMILAR
CHEAPER
INDULGENT
NEW
The “Old School “ Innovation

IDEATION (R&D)
EVALUATION (MIGHTY MANAGERS)
PROTOTYPING & TESTING
PRODUCT LAUNCH

The “New School” Innovation

IDEATION (ALL EMPLOYEES)
IDEATION (EXTERNAL)
EVALUATION (BY MARKETS)
LESSONS LEARNED
PROTOTYPING & TESTS (IN MARKET)
PRODUCT LAUNCH