Accelerating Information Technology Innovation

http://aiti.mit.edu

Cali, Colombia
Verano 2012
Lectura 01
Agenda

• Plan de Negocios
• Caso Edison
• IDEO Video
• Descanso
• Introduccion a Ideacion
• Colombia Movil Discusion
• Primera Lluvia de Ideas Moviles
• Preguntas & Respuestas
Plan de Negocios

1. Problema
2. Solucion
3. El Mercado: clientes/la oportunidad
4. Competicion/Competidores
5. Equipo/Consejeros
6. Finanzas/modelo de negocio
7. Logros hasta ahora
8. El preguntar/ “The Ask”
Logico del Plan de Negocios

Plan to capture value

- Logical Flow
- Scaling
- Presentation

Plan to create value

- Strategy & Pitch
- Financial Statements
- Investor

- Go to Market
- Sales
- Marketing

- Where to Extract Rent/Pay
- Pricing

- Value Proposition
- Competitive Advantage
- Development Plans

- Segment
- Direct Validation
- Competition

- Team Composition
- Values
- Setting Expectations

- Generation
- Analysis
- Testing on Key Stakeholders

Google

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Que Util es tener Plan de Negocio?

“In preparing for battle, I have found that planning is essential, but plans are useless,”

--Dwight D. Eisenhower
Porque Emprender un Negocio?

1. Control your own destiny – beg vs. create awesome job
2. Attackers vs. Defenders: Attackers make all the money & have all the fun, e.g., Zuckerberg, Brin, Jobs
3. Starting companies is LESS risky than thought, and so much more rewarding
4. Change the world
5. The Best Reason: Nothing will use your talents more than starting a company!
Primer Requisito

• Ability to believe in (and get others excited about) something that does not yet exist.
• Your starting point may be a Technology, a Team, or a Market...
Segundo Requisito

Anade:
• Clarity on who is the customer?
• Clarity on what is your value proposition?
• Who do I need on our team?
• What exactly is the product?
• Will it work? Scale? How do you make it?
• Do you have enough of a sustainable advantage to give you the time you need to build a real company?
• Can you avoid making mistakes that will kill your company before it becomes viable? What are those mistakes?
Equipo

- Drive
- Entrepreneurial instincts
- Domain knowledge
- Intelligence
- Track record
- Credentials
- Past collaboration
- Shared vision and values
Mercado/Clientes/Oportunidad

- Identifiable people and pain points (demand)
- Size
- Addressability
- Tops down and bottoms up
- Know your first 10 customers
- The Decision Making Unit (DMU) & the Decision Making Process (DMP)
- Stage of purchase decision (early adopter, mission critical, etc.)
- Ready to pay you to solve their problem?
Ejecucion/Operaciones

• How do sell our product?
• How do we generate demand?
• How do we build the product?
• How do we continue to enhance the product?
• How do we scale?
Finanzas

• The Scoreboard for any business
• What an entrepreneur should know about financial management
• How much growth capital will I need?
• Where can I get it?
• How do I raise money?
Tortugas del mar

• Hatch eggs on land
• 2% make it to the sea
• The rest are eaten by predators...
• We will thru hard work and tough love, increase your odds
• Time compress the learning curve in a less hostile environment
Que haría Ud.?

Caso Edison
Adonde Empezar? Con un Idea.
Volvemos a 1887

• You are Thomas Edison
• Just invented the light bulb
• Now build a business plan
• How would you do this?
Plan de Accion

• What would you do first?
• Second?
• Who is your competition?
• How do you protect your IP?
• Which markets would you go after?
• How would you price?
• What infrastructure would you need?
• What kind of money do you need?
Empiece el Plan

• Trying to accomplish? Wiring of America
• To be done? Transmission and distribution
• Protect the IP? Yes & how
• Market size? 50 million U.S. population/13 million households plus businesses -about the same overseas
• Competition? Kerosene lamps, etc. SOSO
• What people will you need? #'s, skills, location
• What’s your sales model? SaaS
• Time to ramp up? Years
• How much capital? Millions but start small
Identifique Porque Esta es Oportunidad Excepcional

• There are many opportunities within the idea; job is to pick one & focus--explain why & growth strategy.
• Should you go into the transmission business? Distribution? Equipment?
• Must concentrate attack to increase chance of success with limited resources
• Now why is this so interesting & exciting?
• Numbers!
Y Mucho Mas

• You would deal with a list of problems that you would have to address and how serious each was and when each would have to be addressed.

• You would detail what are the risks in your plan - technological and market - and how you would reduce risks.

• You would detail who the stakeholders would be, and your value proposition to each one.

• You would understand a typical sales call.

• (“Hi, Got Light?”)
Analice la demanda

• What are the sales of whale oil? Natural gas?
• What are the problems of candles?
• What is the size and shape of the existing market?
• What are the problems with the current (joke) way of lighting?
• What are the advantages of your system?
Resuma el Mercado

• 50 million population/13 million households = $ for natural gas + $ for candles/whale oil =
• Total Addressable Market (TAM)
• Market Penetration %
• 1889....1890....1891
• You would build a model by making some assumptions!
Algunos Mercados Sopecharen pero no sabraren cantificar

• Is your market “LIGHT”...or is it “Power”? Example: elevators. Small motors for refrigerators, typewriters.

• If you could estimate even a portion of that, you would multiple it by a certainty equivalent... And come to a number that you could feel was in the ballpark.

• “Our first market is rich homes in New York City within 1 mile of our generating facility”
Porque habran mercados nada mas sophechados?

1. You have limited resources
2. You want early adopters
3. You want homes that could afford to wire
4. You want homes that afford your price and which could lend “status” to your “value proposition”
5. You want homes that will impress investors
Thomas Edison never created much wealth

• His works were more impressive than Rockefeller, Ford, Carnegie... Yet he never was one of the leading financial leaders of his time, although he was the father of General Electric.
No Se Sientan Mal para Edison

• Nikola Tesla (1856-1943)
• Tesla’s patents formed basis of electrical power
• Also: robotics, remote control, radar
• Expansion of: ballistics, nuclear physics & theoretical physics
• Inventor not innovator
• Died alone and poor –why?
No participio en MIT AITI!
INTRODUCCION A IDEACION
IDEO Video

http://www.youtube.com/watch?v=M66ZU2PCIcM&feature=em-share_video_user
DESCANSO
Idea Generation

or

“How do I get a good idea to start a company ... and how much does it really matter?”
Scenario

Susie S, Tommy T and Bonnie B all want to start companies but are having trouble trying to figure out how to get started.

What do you do?
Profiles

• Susie S (S=Suit)
  ‣ Represents personal & financial drive
  ‣ Good later but need much more for idea generation

• Tommy T (T=Technology)
  ‣ Represents “technology push”
  ‣ Good or bad depends on how handled & specific scenario
  ‣ Can you find a good match?

• Bonnie B (B=Balance)
  ‣ Looking for customer need to meet
  ‣ Domain expertise is important
  ‣ Passion matters
  ‣ Looking at trends

• Freddy P (P=Propulsion)
  ‣ You must iterate an idea
Susie Suit

- You must have passion about the idea
- You must be able to execute it
- You must see a path to make money to justify the effort and make it sustainable
- Because you want it & you have succeeded in class room setting, does not mean you will succeed no matter what the idea
- The market is a tough & unrelenting place
- “Chance only favors minds which are prepared,” Louis Pasteur
Tommy Tech

• Innovation = Invention + Commercialization
• 90% of companies started by MIT alum are not from technology in the labs
• You have to find a customer who can use your technology to make substantially more money
• Technology Push has its advantages but it is a higher risk exercise
• To optimize success, need to have a systematic way to evaluate markets & then choose one to start and focus on it
Bonnie Balance

- Empathizes with customer
- Market pull
- Looking for trends as well to anticipate new opportunities
- Google/Travel Company example raises question of timing
- Considering personal fit
- Lack of focus is concerning but can come
Getting Started
Seeing the Future Opportunity
# Technology Push vs. Market Pull

<table>
<thead>
<tr>
<th></th>
<th>Technology Push</th>
<th>Market Pull</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risk</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>Unit Profitability</td>
<td>+</td>
<td>-</td>
</tr>
</tbody>
</table>
Freddy Propulsion

- Bias to Action – “JFDI”
- Represents the need to iterate on idea to determine viability
- Engage directly with customers
- Show them prototype, screen shots & discuss value proposition
- Thomas Edison’s measure of success – how many times he could iterate on an idea in first 24 hours
- “Ideas are cheap, implementation is expensive,” Michael Schrage
Well, Are Ideas Important Then?
Company Success

Horse
Technology or Innovative Idea
10-15%

Jockey
Management Team
65-75%

Race
Market Selected
15-20%
The Importance of a Good Idea to Start a Company

• Is this important?

• Yes
  ‣ If you are not over a good target, your efforts are much, much less effective
  ‣ Your ability to recruit & motivate people
  ‣ Your ability to put your head down & focus on execution
  ‣ Credibility in the longer term with customers & others
  ‣ Build your expertise that makes you unique

• No
  ‣ It will change; the concept of pivoting
  ‣ You get 1-2 major adjustments (e.g., A123)
  ‣ Don’t use as an excuse not to do the job properly up front
But How Do We Generate New Ideas?

• Brainstorming
• Open Environment – Flat & Heterogeneous
• Flexible & Environment Matters
• Medium Sized Group (3-6)
• But Still Important to Have a Process
• IDEO is a Master at This …
IDEO’s Process

- Time bracketed
- Stages
- Facilitator
- Brainstormers
- Adult Supervision
- Prototyping
- Fail Often so We Can Succeed Sooner
- Funnel
IDEO’s Culture

• Failure and Trust
• Sharing and Respecting
• Simple Rules
  ▸ Enlightened trial and error
  ▸ Fail often to succeed sooner
  ▸ If a picture is worth a thousand words, a prototype is worth ten thousand
IDEO’s Rules in Brainstorming

• One conversation at a time
• Stay focused on topic
• Encourage wild ideas
• Build on the ideas of others
• Defer judgment
Summary

1. The Idea for the Company is Important – Even if it Will Morph Over Time
2. Personal Drive is Not Enough
3. Tech Push is One Option to Start
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Next Week

- Analyzing Ideas and Inspirations
- Systematic Way to Sort Out Good from Bad
MOVIL EN COLOMBIA
Crecimiento de Movil

Colombia Internet broadband and mobile statistics – 2007 - 2010

<table>
<thead>
<tr>
<th></th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010 (e)</th>
<th>3Q11</th>
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</thead>
<tbody>
<tr>
<td><strong>Broadband</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total subscribers</td>
<td>1.21</td>
<td>1.9</td>
<td>2.22</td>
<td>2.57</td>
<td>2.7</td>
</tr>
<tr>
<td>(million)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Penetration rate</td>
<td>2.70%</td>
<td>4.30%</td>
<td>4.90%</td>
<td>5.60%</td>
<td></td>
</tr>
<tr>
<td>Annual growth</td>
<td>92%</td>
<td>58%</td>
<td>16%</td>
<td>16%</td>
<td>5.06%</td>
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<tr>
<td><strong>Mobile telephony subscribers</strong></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Total subscribers</td>
<td>33.48</td>
<td>40.67</td>
<td>40.38</td>
<td>43</td>
<td>48</td>
</tr>
<tr>
<td>(million)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Penetration rate</td>
<td>76.20%</td>
<td>91.50%</td>
<td>89.80%</td>
<td>94.50%</td>
<td>100%+</td>
</tr>
<tr>
<td>Annual growth</td>
<td>14%</td>
<td>21%</td>
<td>-1%</td>
<td>6%</td>
<td>4.50%</td>
</tr>
</tbody>
</table>

(Source: BuddeComm based on industry data)

in line with GDP
## Operadores Moviles

**Colombia**

The country has 47.7 million subscribers in total, and a mobile service penetration of 103.7 lines per 100 inhabitants.\(^5\) (September 2011)

<table>
<thead>
<tr>
<th>Rank</th>
<th>Operator</th>
<th>Technology</th>
<th>Subscribers (in millions)</th>
<th>Ownership</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Comcel</td>
<td>D-AMPS GSM, GPRS, EDGE UMTS, HSDPA</td>
<td>37.17 (^5) (September 2011)</td>
<td>América Móvil (99.4%)</td>
</tr>
<tr>
<td>2</td>
<td>Movistar</td>
<td>D-AMPS CdmaOne CDMA2000 1x GSM, GPRS, HSDPA</td>
<td>10.70 (^5) (September 2011)</td>
<td>Telefónica</td>
</tr>
<tr>
<td>3</td>
<td>Tigo</td>
<td>GSM, GPRS, EDGE HSDPA, HSDPA+</td>
<td>5.64 (^5) (September 2011)</td>
<td>MIC (50% + 1 Share), EPM and ETB</td>
</tr>
<tr>
<td>4</td>
<td>UFFI</td>
<td>GSM, GPRS, EDGE</td>
<td>0.21 (^5) (September 2011)</td>
<td>Organización Ardila Lülle</td>
</tr>
<tr>
<td>5</td>
<td>UNE</td>
<td>GSM, GPRS, EDGE LTE (Trials)</td>
<td>It was launch in August 2011 (News)</td>
<td>Empresas Públicas de Medellín</td>
</tr>
<tr>
<td>6</td>
<td>Avantel</td>
<td>iDEN</td>
<td>---</td>
<td>Avantel</td>
</tr>
</tbody>
</table>

Unas Estadisticos Mas

• 40% crecimiento en trafico web no-computadora
• Habian US$1.2 billiones de ventas e-commerce en Colombia durante 2011, (desde Alberto Pardo, president of the Cámara Colombiana de Comercio Electrónico)
• Projecten que ventas e-commerce creceran 100% en 2012 llegando a US$2 billiones
• Mercado Libre noto que en los ultimos 9 meses dentro de la America Latina, ha registrado 2.5 millones de downloads de sus apps moviles representando 3.5% de su traffico.
2010-2014 Projected Global Smartphone App Revenues

Comments

- US smartphone penetration is currently only 28%, lower globally
- US penetration forecasted to grow to 80% by 2015
- Tablets will be huge – forecasted to grow to 60 to 115 million globally
- 25+ Android tablets to be launched in 2010

Source: IDC 12/10
In the walled garden days, operators focused only on high-demand apps...

- Operators built core apps themselves (e.g. VZ Navigator)
- A few partners were brought on board for less lucrative opportunities
- Economics did not work for longer-tail apps

Led by the iPhone, apps became free or less expensive while serving as differentiator (e.g. “free Google Maps, screw Navigator”)

- Downward pressure on top apps (lower price, less value)
- Growing demand for new app titles & categories

#1 best-selling app
20th best-selling app

Source: CSMG
Tema US 2012: Integracion Movil

• Mobile apps + social: Over 80% of all mobile apps developed in 2012 will be integrated with social networking services such as Facebook, Twitter, Foursquare

• Mobile apps + Big Data: Two-thirds of all mobile apps developed in 2012 will be integrated with analytics offerings from Omniture, Flurry, Appcelerator

• Mobile apps + cloud platforms: Almost half of all mobile apps developed in 2012 will be connected to, and integrated with, key cloud application platforms such as Amazon Web Services, Windows Azure, Force.com

• Mobile apps + commerce: Almost three-quarters of all mobile apps developed in 2012 will be integrated with in-app commerce offerings, including those from PayPal, Amazon, Google

• Emerging markets emerging markets have been driving more than 50% of ICT industry growth for the past two years.

Source: IDC 2011: 2012 Predictions
Drivers of Improved Developer Profitability

• Revenue Up
  – Improved Rev Share Terms: Revenue splits are massively improved (was 40/60 to the carrier just a few years ago)
  – Discoverability: Discovery and marketing is done for you (with varying levels of competence (can’t emphasize how important this is as an App Store concept – companies can spend years building channels)
  – Easy Billing: Billing infinitely easier and will get better with carrier billing (we hope)
  – User Experience: User experience massively improved and thus customer willingness to pay (thank you Apple)
  – App Culture: Users who avoided anything sold by the carrier like the plague are now all about apps

• Costs down
  – Development costs: Development is much easier with APIs and SDKs
  – Certainty around getting to market: No more business development army needed to get on carrier decks
  – Channel: Investment costs to establish channel are minimal – watch out for Mac App Store. Days of begging VARs to sell your stuff may be coming to an end.
PRIMERA LLUVIA DE IDEAS
MOVILES
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Perfect (Elevator) Pitch

• Designed to start a conversation, get the meeting
• Must be:
  – Concise
  – Clear
  – Compelling
  – Credible
  – Consistent
Perfect (Elevator) Pitch

• Story: one sentence on what the company does that expresses problem and solution
• Opportunity
• Team
• Business Model or Achievements
• Ask
Investor Pitch

- **Intro**: Define the company, business, service or product in a single sentence.
- **Team**: Identify a core group of talent that can execute on the next set of milestones.
- **Opportunity**: Establish the need for your company’s solution and the size of the market.
- **Solution**: Demonstrate how you will solve the problem and validate your differentiation.
- **Competition**: Identify your competitors, validate your differentiator.
- **Business Model**: Explain how you will generate revenue, show us what you’ve accomplished to date, and make future forecasts.
- **The Ask**: Ask for the order and outline what you need from us to make your business a success.
APPENDIX
Rompecielos II

• Juego Barceleno
  – Dividen en tres grupos
  – Cuenta hasta 10, pero recuerden de cumplir con las reglas de Danny