Successful Entrepreneurship for Microsystems

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Course presented at UCSD CSE 190, Fall Quarter 2014
So far...

- Entrepreneurship Overview
- Projects and Projects selected, Round 1 presentation
- Microsystem
  - History
  - Market Drivers
  - Lifecycle
- Mobile Apps opportunities
  - Learnings from Dr. Greg Hoovers’s session
    - Mobile Apps alone
      - difficult business
      - Could get lucky a’la WhatsApp
      - iOS or Google Play?
- Intro to Business Plan, Business Model Canvas
Towards “Plan A” – an iterative process
The stages of a Startup

Stage 1: Problem/Solution Fit
- Focus: Validated Learning
- Experiments: Pivots

Stage 2: Product/Market Fit
- Focus: Growth
- Experiments: Optimizations

Stage 3: Scale

Ref: Ash Maurya, “Running Lean”
Iteration Methodology

Ref: Ash Maurya, “Running Lean”
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The “Productization / Commercialization” Lifecycle
...Idea to High Volume Production

- **Biz Plan**
  - IDEA
  - Lab Demo (Funding, Market, Customer, Biz Plan...)
  - Model Prototype
  - “System”/Produce-able Prototype
  - Production

- **Technology Release Levels**, Ref. nasa.gov
  - 1 2 4 5 7 9

- **Methodologies**
  - Canvas
  - Customer Interviews
  - 1st Demo/Sample

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Typical IC Product Roadmap

- Initial Product
- Follow On Product
- Follow On Product
- Features, Performance
- Cost Reduction

Int'l Introduction

1 year

2 years

3 years

Years
Marketing / Sales Channels

…Getting the Customers

➢ “Free” – SEO, social media, blogs,…
➢ “Pull” vs. “Push” messaging – “word of mouth” vs. sending emails, etc.
➢ Direct Sales
  ➢ good for initial contacts…sell your initial product yourself first!
  ➢ Direct sales people can be expensive…use judiciously when appropriate
➢ Strategic Partnerships …caution – good for visibility, but do you really get the attention from the Partner’s sales people?
➢ Referrals – must have a GOOD product to get them!

Ref: Ash Maurya, “Running Lean”
Product Positioning

“Movie” Candy

- A product of Switzer Clark
- Small ad budget
- Created a differentiating feature
  - Normal candy does not last long
  - Kids love it!
  - Lasts as long as the movie!

Candy

Ref: Al Ries, Jack Trout, “Positioning”
Lean Canvas – RISKS Assessment

P – Product Risks
M – Market Risks
C – Consumer Risks

PROBLEM

SOLUTION

UNIQUE VALUE PROPOSITION

UNFAIR ADVANTAGE

CUSTOMER SEGMENTS

Existing alternatives:

High-level concept:

Early adopter:

KEY METRICS

CHANNELS

COST STRUCTURE

REVENUE STREAMS

Lean Canvas is adapted from The Business Model Canvas (http://www.businessmodelgeneration.com) and is licensed under the Creative Commons Attribution-Share Alike 3.0 Unported License.

Ref: Ash Maurya, “Running Lean”
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Key Metrics – Pirate METRICS ("AARRR")

…Early feedback & Assessment

Ref: Ash Maurya, “Running Lean”, Dave McClure
Unfair Advantage

- Anything worth copying (technically and business-wise) WILL be copied!
- Anticipate that the competition will try to out-run you!
- “Unfair Advantage” are things that cannot be easily copied or bought
  - Insider Information
  - The right “Expert” Endorsements
  - A dream Team
  - Existing Customers
  - Personal authority
  - Community
  - SEO (Search Engine) ranking
  - .....

Ref: Ash Maurya, “Running Lean”
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CloudFire example…”Running Lean” – Ash Maurya

Prior to CloudFire, I had launched a file-sharing application called BoxCloud that simplified the process of sharing large files, using a proprietary peer-to-web (p2web) framework we had built.

BoxCloud’s unique value proposition (UVP) was that it allowed the sharer to share a file/folder directly from his computer without any uploading. Recipients accessed the shared file/folder directly from their browser without the need to install any additional software.

BoxCloud was primarily targeted at business users and was in use by graphic designers, attorneys, accountants, and other small-business owners.

I was interested in exploring other uses of the p2web framework, especially around media sharing (photos, videos, and music), which is how CloudFire came about.

Really broad category:
Anyone that shares lots of media content.

More specific possible customers:

- Photographers
- Videographers
- Media consumers (scratch my own itch)
- Parents

While I was initially drawn to building something for the consumer segment (with myself as the prototypical customer), I had recently become a parent and witnessed some pain points around photo and (especially) video sharing. That is the segment I decided to model first.
**CloudFire – PARENTS Lean Canvas**

<table>
<thead>
<tr>
<th><strong>PROBLEM</strong></th>
<th>Sharing lots of photos/videos is time-consuming.</th>
<th><strong>SOLUTION</strong></th>
<th>Instant, no-upload sharing</th>
<th><strong>UNIQUE VALUE PROPOSITION</strong></th>
<th>The Fastest Way to Share Your Photos and Videos</th>
<th><strong>UNFAIR ADVANTAGE</strong></th>
<th>Community</th>
<th><strong>CUSTOMER SEGMENTS</strong></th>
<th>Parents (creators)</th>
<th>Family and friends (viewers)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Parents have no free time.</td>
<td></td>
<td>iPhoto/folder integration</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>There is lots of external demand on this content.</td>
<td></td>
<td>Better notification tools</td>
<td></td>
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<tr>
<td><strong>Existing alternatives:</strong></td>
<td>Flickr Pro, SmugMug, Apple MobileMe, Facebook</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>KEY METRICS</strong></th>
<th>A - Sign-up</th>
<th>A - Created first gallery</th>
<th>R - Shared an album and/or video</th>
<th>R - Invited family and friends</th>
<th>R - Paid after trial</th>
</tr>
</thead>
</table>

<table>
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<tr>
<th><strong>High-level concept:</strong></th>
<th>Photo and video sharing without the uploading</th>
</tr>
</thead>
</table>

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<tr>
<th><strong>CHANNELS</strong></th>
<th>Friends</th>
<th>Daycare</th>
<th>Birthday parties</th>
<th>AdWords</th>
<th>Facebook</th>
<th>Word of mouth</th>
</tr>
</thead>
</table>

<table>
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<tr>
<th><strong>COST STRUCTURE</strong></th>
<th>Hosting costs - Heroku (currently $0)</th>
<th>People costs - 40 hrs * $65/hr = $10k/mo</th>
</tr>
</thead>
</table>

<table>
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<tr>
<th><strong>REVENUE STREAMS</strong></th>
<th>30-day free trial then $49/yr</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th><strong>Break-Even Point:</strong></th>
<th>2,000 customers</th>
</tr>
</thead>
</table>

Ref: Ash Maurya, “Running Lean”
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CloudFire – PHOTOGRAPHERS Lean Canvas

PROBLEM
Sharing lots of photos/videos is time-consuming.
Most proofing sites only support low-res thumbnails.

SOLUTION
Instant, no-upload sharing
Aperture/Lightroom/ folder integration
Cloud storage of originals

UNIQUE VALUE PROPOSITION
The Fastest Way to Share Your Photos and Videos

UNFAIR ADVANTAGE
Community

CUSTOMER SEGMENTS
Photographers (creators)
Clients (viewers)

KEY METRICS
Created first gallery
Shared an album and/or video
Invited clients

CHANNELS
First-degree network
Cold calling
Photography events

Early adopter:
Wedding photographers, sports photographers, portrait photographers

COST STRUCTURE
Hosting costs - Heroku (currently $0)
People costs - 40 hrs * $65/hr = $10k/mo

REVENUE STREAMS
30-day free trial then $199/yr

Break-Even Point:
600 customers

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# CloudFire – VIDEOGRAPHERS Lean Canvas

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<tr>
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<th>SOLUTION</th>
<th>UNIQUE VALUE PROPOSITION</th>
<th>UNFAIR ADVANTAGE</th>
<th>CUSTOMER SEGMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sharing large video files is time-consuming and error prone. Most proofing sites only support low-res thumbnails.</td>
<td>Instant no-upload sharing Progressive streaming</td>
<td>The Fastest Way to Share Your Video Files</td>
<td>???</td>
<td>Videographers (creators) Clients (viewers)</td>
</tr>
</tbody>
</table>

**Existing alternatives:** FTP, CDN

**KEY METRICS**
- Create first project
- Shared video
- Invited clients

**CHANNELS**
- First-degree network
- Cold calling

**High-level concept:** Video sharing without uploading

**Early adopter:** Music, sports, video games

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**COST STRUCTURE**
- Hosting costs - Heroku (currently $0)
- People costs - 40 hrs * $65/hr = $10k/mo

**REVENUE STREAMS**
- 30-day free trial then $99/mo

**Break-Even Point:** 100 customers

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Ref: Ash Maurya, “Running Lean”
# CloudFire – CONSUMERS Lean Canvas

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<th><strong>UNFAIR ADVANTAGE</strong></th>
<th><strong>CUSTOMER SEGMENTS</strong></th>
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</thead>
<tbody>
<tr>
<td>Personal media files are spread across many devices. Sharing lots of photos and videos is difficult.</td>
<td>Auto-sync files across devices Instant, no-upload sharing Always-on network appliance device (optional)</td>
<td>Anywhere access to your media content</td>
<td>???</td>
<td>Consumers</td>
</tr>
</tbody>
</table>

**Existing alternatives:** Maintain multiple copies through manual syncing

<table>
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<th><strong>KEY METRICS</strong></th>
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<th><strong>COST STRUCTURE</strong></th>
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</thead>
<tbody>
<tr>
<td>Add first device Shared photos/videos Invited friends</td>
<td>First-degree network Cable/DSL providers (white-labeled solution)</td>
<td>Hosting costs - Heroku (currently $0) People costs - 40 hrs * $65/hr = $10k/mo</td>
<td>Freemium model with $9/mo for premium storage option</td>
</tr>
</tbody>
</table>

**Break-Even Point:** 1,000 customers

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Ref: Ash Maurya, “Running Lean”
Get External Advice

- Avoid lengthy presentation
- Devote 20% of time to Present, 80% to Listen
- Ask specific questions
  - What they consider highest risk points
  - Have they encountered similar risks? How? What they did about them?
  - How would they go about testing the risks?
- Recruit Visionary Advisors
  - Get their advice, don’t follow it, APPLY it!

Ref: Ash Maurya, “Running Lean”
HW 5.2 – Lean Canvas

...Due Thursday, 13th

- Create a Lean Canvas for your Project
- Submit also a revised Homework 3 (optional)