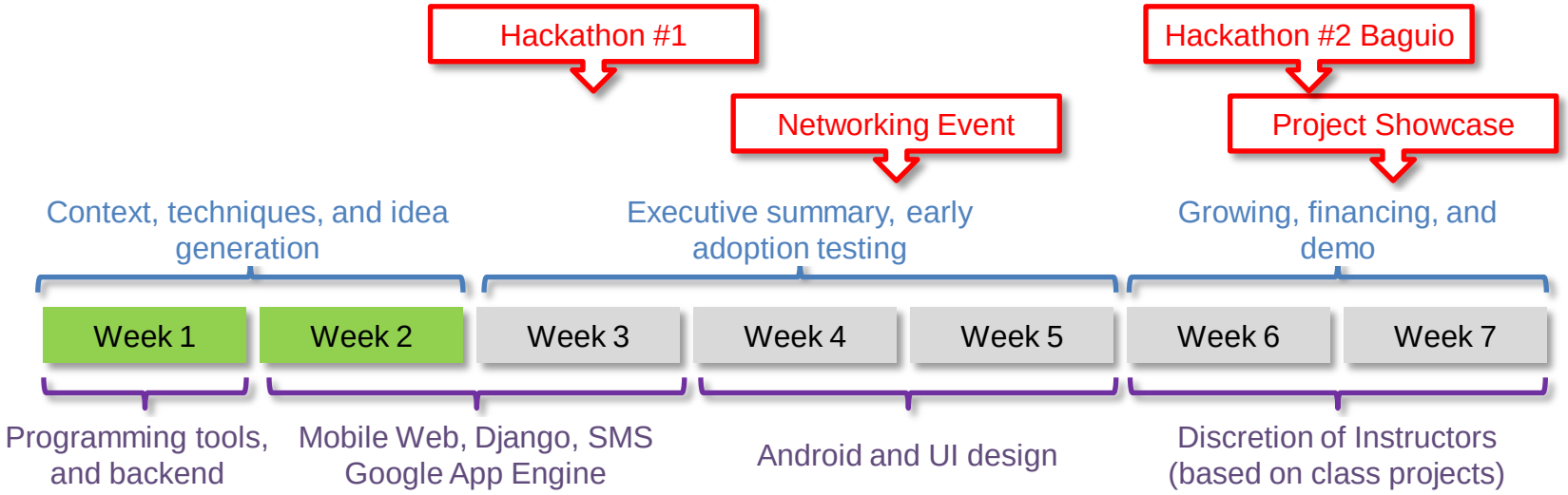
MIT Accelerating Information Technology Innovation

Sponsored by Google and by MIT International Science & Technology Initiatives

Lecture 3:
Idea Refinement

CURRICULUM


Hackathon #1
Networking Event
Hackathon #2 Baguio
Project Showcase
Context, techniques, and idea generation
Executive summary, early adoption testing
Growing, financing, and demo
Week 1
Week 2
Week 3
Week 4
Week 5
Week 6
Week 7
Programming tools, and backend
Mobile Web, Django, SMS Google App Engine
Android and UI design
Discretion of Instructors (based on class projects)

SCHEDULE FOR TODAY

Time	Topic
4:10PM	**Team, market, and idea**
4:15PM	Project logistics
4:20PM	Mobile application frameworks in Python: Django
4:40PM	Revenue streams and cost structure
4:50PM	Idea Speeding Dating
5:10PM	Django models, views, and templates, and Django Syntax
5:30PM	Break
6PM-9PM	Lab time

TECHNOLOGY PUSH VS. MARKET PULL

	Technology Push	Market Pull
Risk	**Higher risk**	**Lower risk**
Unit Profitability	**Higher profit**	**Lower profit**

SEEING THE FUTURE OPPORTUNITY

Wayne Gretzky

- Average height, average size
- Neither the fastest nor the strongest
- Didn't have the best dribbles or the hardest shot

Yet arguably the best player that ever played hockey

He had the best 'vision'

"Skate where the puck is going"

MINIMUM VIABLE PRODUCT

What is the smallest set of features that you need to make your users happy?

Can you make your product simpler to use and/or to learn?

Can you make your product easier to build?

Can you build prototype over a weekend?

Can you build your MVP in 3 months?

COMPANY SUCCESS FACTORS

Horse	Jockey & trainers	Race
Technology *or* Innovative Idea	Team and advisors	Market Selected
10-15%	**65-75%**	**15-20%**

Source: David Morganthaler, Morganthaler Ventures

SCHEDULE FOR TODAY

Time	Topic
4:10PM	Team, market, and idea
4:15PM	**Project logistics**
4:20PM	Mobile application frameworks in Python: Django
4:40PM	Revenue streams and cost structure
4:50PM	Idea Speeding Dating
5:10PM	Django models, views, and templates, and Django Syntax
5:30PM	Break
6PM-9PM	Lab time

PROJECT

On Thursday this week, we will hold an idea pitching contest

Everyone in the class will have a chance to promote their idea

At the end of the contest, we will select the top 6 ideas based on the following judging criteria:

- Fun factor
- Team interest
- Business viability
- Technical feasibility

Around each of these ideas we will form teams, which will partly of your choosing but final team composition will be at the instructors' discretion (diversified teams work better)

INTELLECTUAL PROPERTY

From now on, all your submissions constitute “public disclosure”

Do not write “confidential” or “proprietary” on your assignments or submitted plans

We will freely distribute submitted plans to your classmates, & will use non-secure email/websites

This is an academic environment – information is free. You have no stake to a claim in a company because of your work in this class. Any companies that start, start after this class with a clean slate

RECRUIT ADVISOR

Our grading of your assignments is not sufficient

Up to you to be more proactive in seeking guidance

Assignments will be scanned for the essentials, and randomly checked in-depth

You will have to find an advisor outside of the class to review your business model and executive summary; this advisor could be a family member, a faculty at UP, or even better a professional who knows about the market you are targeting (e.g. if you build an app for taxis, find yourself a dispatcher or a driver!)

SCHEDULE FOR TODAY

Time	Topic
4:10PM	Team, market, and idea
4:15PM	Project logistics
4:20PM	**Mobile application frameworks in Python: Django**
4:40PM	Revenue streams and cost structure
4:50PM	Idea Speeding Dating
5:10PM	Django models, views, and templates, and Django Syntax
5:30PM	Break
6PM-9PM	Lab time

SCHEDULE FOR TODAY

Time	Topic
4:10PM	Team, market, and idea
4:15PM	Project logistics
4:20PM	Mobile application frameworks in Python: Django
4:40PM	**Revenue streams and cost structure**
4:50PM	Idea Speeding Dating
5:10PM	Django models, views, and templates, and Django Syntax
5:30PM	Break
6PM-9PM	Lab time

THE 9 BUILDING BLOCKS

CS

1 Customer Segments

An organization serves one or several Customer Segments.

VP

2 Value Propositions

It seeks to solve customer problems and satisfy customer needs with value propositions.

CH

3 Channels

Value propositions are delivered to customers through communication, distribution, and sales Channels.

CR

4 Customer Relationships

Customer relationships are established and maintained with each Customer Segment.

R$

5 Revenue Streams

Revenue streams result from value propositions successfully offered to customers.

KR

6 Key Resources

Key resources are the assets required to offer and deliver the previously described elements...

KA

7 Key Activities

...by performing a number of Key Activities.

KP

8 Key Partnerships

Some activities are outsourced and some resources are acquired outside the enterprise.

C$

9 Cost Structure

The business model elements result in the cost structure.

REVENUE POTENTIAL

Average Revenue Per User (ARPU)

- Will you selling it to your customers or will you be deriving revenue another way (e.g. advertising)?
- Will you have only a single price or many prices for different customer segments (e.g. student discounts)?
- Will you be charging a one time fee or a subscription model (if subscription, is it based on volume consumed or time, or both)?

Number of users

- Can you divide your potential users into categories (e.g. market segmentation)?
- What does your typical user look like (age, sex, income, tastes, etc.)?
- Are all users equal (e.g. some more profitable, others easier to serve)?
- Will you have a beachhead market (i.e. customers you will go after first)?
- Who are your most desirable users (not necessarily most profitable but often it is the case)?
- How many users do you expect to have in one year, in three years (and how many are there in total your market)?

Revenue potential(t) = Number of users(t) * ARPU(t)

COSTS

Time
- How long does it take to build you minimum viable product?

Engineering (more immediate)
- How many developers?
- How many testers?
- How many technical writers?
- How many system administrators?
- When will you need a project manager?
- When will you need a CTO?

Marketing
- When will you need a product manager?
- When will you need a marketing and communication expert?

Sales
- How many sales rep?
- How many sales support?
- When will you need sales managers?

Admin
- When will you need an accountant?
- When will you need a CEO?

For software development, assume 2/3 of your costs will be labor, and majority of that will be development for the first year – so need to add another 1/3 for materials, licenses, legal fees, etc.

BACK OF THE ENVELOP PROFIT CALC

Student Name:
Idea Title:

Revenue	Year1	Year2	Year3	Example*:
Average revenue per user				PHP 80 per user, per year
Number of users				50,000 every UP student in country
Total Rev = ARPU*#users =				PHP 4,000,000
Cost				
Average annual salary				PHP 420,000 PHP 35K per month (incl. tax, insurance, etc)
Number of developers				3
Num marketers, sales, and admin				1
AAS*Nemployees=				PHP 1,680,000
Materials (+50% of labor)				PHP 840,000.0
Total Cost =				PHP 2,520,000.0
Gross profit				
Total GP = TR – TC =				PHP 1,480,000.0

* Example is that of a Android application that students would use to register for their courses which would cost PHP 80 per student per year

SCHEDULE FOR TODAY

Time	Topic
4:10PM	Team, market, and idea
4:15PM	Project logistics
4:20PM	Mobile application frameworks in Python: Django
4:40PM	Revenue streams and cost structure
4:50PM	**Idea Speeding Dating**
5:10PM	Django models, views, and templates, and Django Syntax
5:30PM	Break
6PM-9PM	Lab time

IDEA SPEED DATING

Form into assigned pairs

Pick your favorite business model canvas

1. Minute **one**: pitch it to your counterpart
2. Minute **two**: your counterpart repeats your pitch ("what have you heard from what I just said")
3. Minute **three**: with the help of your counterpart, answer the following questions about the idea (using provided template):
   a) What is the revenue potential? (R=N*ARPU)
   b) How long does it take to build it?
   c) How much will it cost to build it? (C=number of developers*annual salary)
4. Minutes **four** and **five**: have your counterpart read your business model canvas and make (or suggest) at least 3 improvements

PAIRS ASSIGNMENTS

(Random allocation)

Goes First	Goes Second
APRYL ROSE BISAIS	JUSTINE ARNON RAZON
AUBREY JOANNA PASCUAL	FRANCIS JOMER GALLARDO
BENJAMIN JR CUETO	ALDRIC MANZANO
BERLYN ANNE DECENA	ADRIAN ORENSE
CASSANDRA LEIGH WANG	VICTORIA CASSANDRA REAL
DANIELLE ANNE AYAG	ROD XANDER BONDOC
DIANA MAE PACAPAC	ARMOND AVE
EMERY DELA CRUZ	NOEL NICANOR II SISON
JEWEL LEX JAVIER	RAMON JOSE NILO SALVADOR
JULES ALBERT CAPACILLO	RITZ DANIEL ANG
NATHAN LEMUEL SANTI	MARIA AZRIEL THERESE EALA
NORVIN YECLA	RICARDO BAUTISTA

ENTREPRENEURSHIP ASSIGNMENT

Individual assignment

1. Do some basic market research to calculate total revenue and total cost for years 1, 2, and 3 (try to use Google Search to make better guesses or ask friends and family)
2. Submit online in your Dropbox (due Thursday 28th at 4PM)
3. Please use the provided template
4. Prepare at home to pitch your favorite idea (again, you will have a maximum of 60 seconds). Note: best way to prepare is to tell your pitch to your friends and have them repeat what they heard – this will help you improve how you explain your idea and the idea itself
5. Come equipped with an updated copy of your favorite business model canvas (it could be an improved version of your old 3 canvases, or an entirely new one – it's up to you) and a copy of your 3 year projected revenue cost model