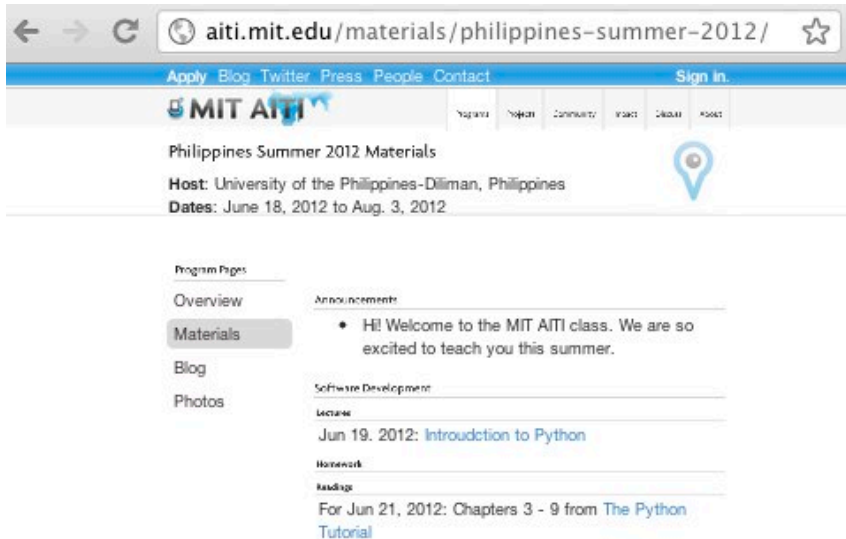




# Lecture 1: Course Introduction and Objectives



# AITI



“The Massachusetts Institute of Technology's Accelerating Information Technology Innovation (MIT AITI) is a multidisciplinary group that promotes software development skills and technology entrepreneurship in emerging regions. “



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# Objectives

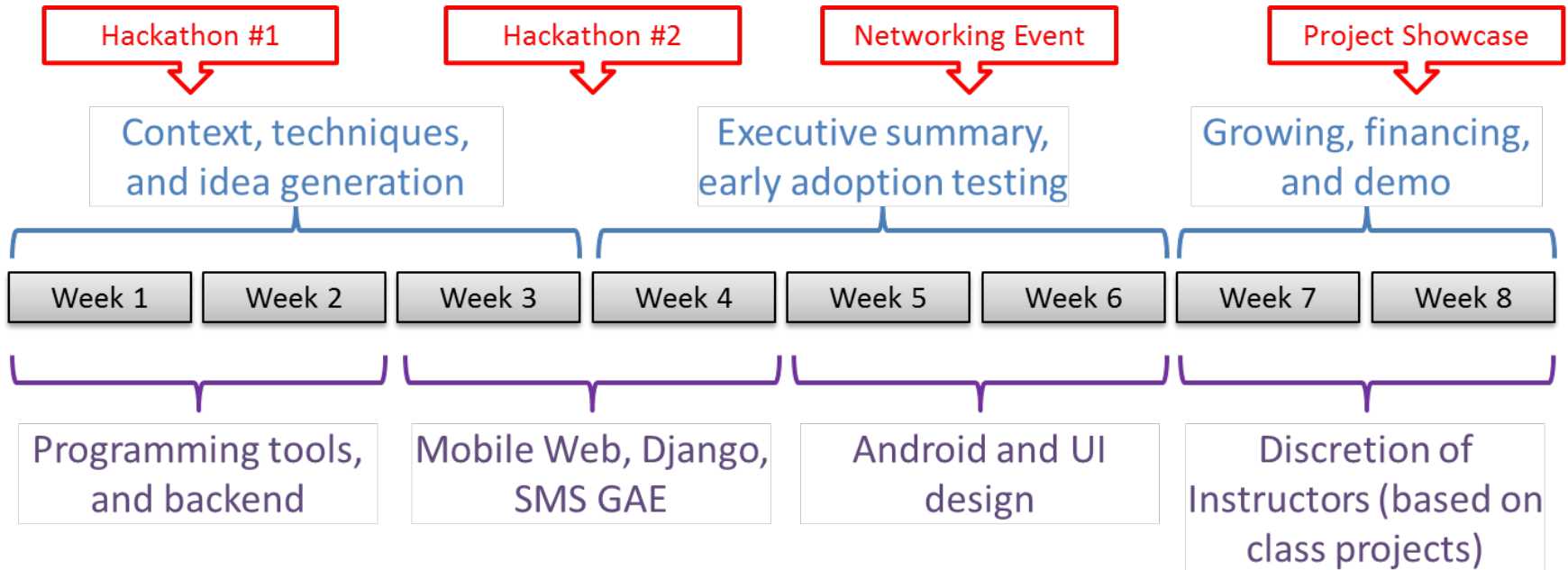
- 1. Foster the spread of appropriate ICT services and content***
- 2. Cultivate a generation of young technology entrepreneurs***
- 3. Build capacity at and partnerships with partner universities***
- 4. Remove barriers to creating, deploying, and scaling mobile services and content***

# Ice Breaker Exercise

Get to know your neighbors and instructors!

1. Get up out of your chair and partner up with someone you do NOT know (or know the least)
2. Tell your partner about yourself in 30 seconds (e.g. where you are from, languages you speak, etc.) and a funny fun fact (e.g. you've once eaten 43 slices of pizza)
3. You will introduce your partner to the class, so listen carefully!
4. Have fun!

# Curriculum Overview



# Entrepreneurship Curriculum

1. ICT Entrepreneurship Context
  - a. Monetization of mobile / internet services in regional context
2. Mobile / Internet Service Toolkits and Techniques (Techniques)
  - a. Big Data
  - b. Gamification
  - c. Social structures to engage users
  - d. Presenting
3. Idea Generation
  - a. Discussion of local problems and opportunities
  - b. Ask students to think about opportunities/problems in their daily life
  - c. Group discussions to work on ideas
  - d. Short write-up of ideas (pitch)
  - e. Feedback from instructors on ideas
  - f. Pitches to class on ideas
4. Executive Summary and prototype user testing
  - a. Do users/consumers want your prototype?
  - b. What is your minimum viable product? Will you need to pivot?
  - c. Solidifying pitch and plan
  - d. Finding mentors through networking and pitching event
  - e. Business plan
  - f. Intellectual property context
5. Growing Business (Growing)
  - a. Marketing ideas in regional context
  - b. Honing pitches
  - c. How to attract investors
6. Project implementation
  - a. Pitches
  - b. Demo
  - c. Financing
  - d. Business Competition Day

# Technical Curriculum

1. Tools
  - a. Github, Eclipse IDE
  - b. Overview of Mobile Technologies
  - c. SMS, Mobile Web, Smart Phone Applications
  - d. How are mobile technologies used by successful US services?
2. Introduction to Programming in Java, Python  
Variables, control, methods, arrays
3. Object Oriented Programming and Design in Java, Python  
Encapsulation, inheritance, interfaces, generics
4. Helpful Data Structures  
Lists, dictionaries, maps, sets, etc.
5. Regular Expressions and parsing
6. SQL
7. Java Micro Edition (J2ME)
8. Web Technologies and Platforms  
HTTP, HTML, CSS, JavaScript, Ajax, Mobile web
9. Backend Technologies
  - a. Google App Engine
  - b. MVC frameworks: Django
10. Android
11. UI Design
12. Text Protocols
  - a. SMS
  - b. USSD (only if time permits)
13. IVR Systems

# Grades

Component	Weight	Description
<b>Class participation (individual)</b>	10%	We want you to ask questions <b>every</b> class and/or answer other people's questions. We expect each and everyone one of you to raise your hand and speak once per class. Your contributions have to be meaningful and demonstrate that you have been listening and doing the readings.
<b>Homework (individual)</b>	20%	You will get assignments after every class. Some will be very simple, other will be challenging. We will be evaluating your homework assignments during the lab sessions of the following class day. We will not only evaluate your code but also ask questions about your approach.
<b>Business plan executive summary and business model (team)</b>	15%	For your project, you will produce a 1-2 page business plan which will cover market opportunity, sales and marketing strategy, product description, financial projections, financing needed, team biographies, and a business model canvas ( <a href="http://www.businessmodelgeneration.com/canvas">http://www.businessmodelgeneration.com/canvas</a> ).
<b>Pitch and idea storm (individual)</b>	5%	We will evaluate both 1) the quality of your insights during the idea storm session and 2) the quality of your delivery for your 30 seconds elevator pitch.
<b>Project presentation (team)</b>	20%	Towards the end of the class, we will invite entrepreneurs, venture capitalists, investors, and others to come listen to your project presentation. Each team will present to the audience their prototype and their idea for a business. You will need to build a convincing case for the audience to want to give you money to start your business.
<b>Project demo (team)</b>	30%	During our last week, we will schedule a 1-hour session per team to give you a chance to demo your application with us and we will be inspecting both your code and the team's overall technical understanding. Every team member does not need to be an expert at everything but needs to show a general level of understanding of every piece of code.



# Quiz – How Well Do You Know The Internet?

1. How many new internet users in the Philippines between 2008 and 2011? What rank worldwide?
2. What is the 3G penetration in the US? In Japan? In the Philippines?
3. How many mobile phone subscriptions worldwide? Smartphones?
4. What % of global internet traffic comes from mobile as of April 2012?
5. Is there more mobile internet bandwidth or desktop internet bandwidth in India?
6. How much did Google charge for every click on their ads on average in Q1, 2012?
7. What is the Average Revenue Per User for Facebook in Q1, 2012?

Refer to Kleiner Perkins  
Caufield Byers presentation

# Quiz – How Well Do You Know The Internet? ANSWERS!!

1. How many new internet users in the Philippines between 2008 and 2011? **28MM.**  
What rank worldwide? **Rank is 4<sup>th</sup>.**
2. What is the 3G penetration in the US? **64%** In Japan? **95%** In the Philippines? **18%**
3. How many mobile phone subscriptions worldwide? **6.1B** Smartphones? **953MM**
4. What % of global internet traffic comes from mobile as of April 2012? **10%**
5. Is there more mobile internet bandwidth or desktop internet bandwidth in India?  
**Mobile surpassed desktop in Q2, 2012**
6. How much did Google charge for every click on their ads on average in Q1, 2012?  
**48 cents (P20)**
7. What is the Average Revenue Per User for Facebook in Q1, 2012? **\$4.00 (P169)**

# The Journey Begins: Next Class – “Idea Generation”

