

# Spotlight on Gaming Technologies

CocoaHeads Beijing 6th Meeting

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Special Thanks To..



現代傳播

Modern Media

# Agenda

- Gaming Technologies Overview
- cocos2d
- Unity
- Hands-on: How to use Unity to create interactive scene

# CocoaHeads Beijing

## A little bit history

- Founded in April 2009
- Focus on face-to-face communication
  - We don't do online forums!
- No join-in process/fee
- Cheap or free entrance
- To help us: attend meetings, give presentations, and provide us free lecture halls :-)

# Gaming Technologies

# Gaming Technologies

What you need to make an iPhone game

- Graphics
- Audio
- Networking
- User Input
  - Accelerometer
  - Multi-touch
- In-App Purchase

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# Graphics

# Graphics

Applications

UIKit

Core  
Animation

Core  
Graphics

OpenGL  
ES

Hardware

# UIKit

## Buttons, Scroll Views, Table Views...

- Standard UI elements kit.
- Why important for gaming?
  - You will have buttons, scroll views in your game
  - Make them feel like controls from UIKit
  - Example: Scroll View should NOT be scrolled by the scrollbar

# Core Graphics

## Lines, Shapes and Text

- C APIs for drawing static graphics
  - Good for drawing a graph created from statistics
- Not fast enough to animated objects

# Core Animation

Animations on 2D Panels in a 3D space

- Fast and easy to use Objective-C APIs
  - “Set & Run” model
- Smooth animation effects in a “2.5D” space
- Good enough for a board game
  - Limited interruption during an animation

# OpenGL ES

Ultimate way to do games

- High-performance 3D graphics API
- Mobile version of the OpenGL standard
- Hard to learn
  - Low-level APIs
- Hard to use
  - No direct importing support
  - No physics engine

# Game Engines

Help ease the OpenGL pain

# Game Engines

- A software system designed for the creation and development of video games
- Rendering engine for 2D or 3D
- Physics engine or collision detection
- Sound Engine
- Scripting
- Networking
- Assets importing (e.g. import 3D models)

# 2D Game Engines on iPhone

## An overview

- cocos2d
  - Free and open sourced
  - Core Animation-like Objective-C APIs
  - Integrated physics engine
- Torque 2D for iPhone
  - Costs \$750
  - All-in-one Editor

# 3D Game Engines on iPhone

## An overview

- Unity
  - iPhone version costs \$399/\$1499
  - All-in-one editor
  - GameObject and Scripts (JavaScript, C#)
  - Objective-C plugins only available on advance edition
- Others
  - Torque3D
  - Oolong Engine (free)
  - SIO2 Engine (free)
  - ShiVa

