

BRIEFING CONCENTRATION INTERACTIVE MULTIMEDIA ODD 2017 / 2018



5 Oct 2017 & 11 Oct 2017
D1831 – Yulyani Arifin



OUTLINE

- BACKGROUND
- COURSES LIST
- PRODUCTS OF INTERACTIVE MULTIMEDIA
- POTENTIAL RESEARCH IN INTERACTIVE MULTIMEDIA
- CAREER OPPORTUNITIES



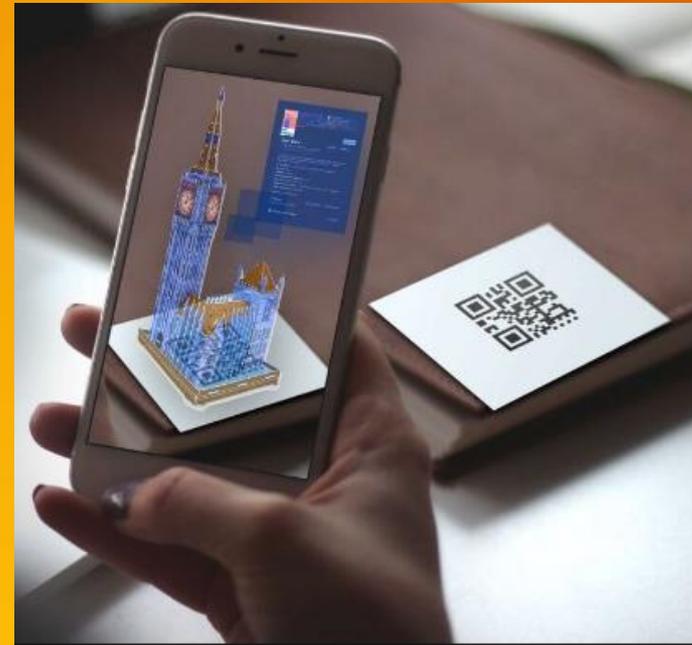
BACKGROUND

Lenovo Phab2 Pro



Source : phonearena.com

Iphone 8





BACKGROUND

- New way to storytelling
 - The Castorama - The Magic Wallpaper





BACKGROUND

- Virtual Reality has the power to change life .
 - a) **Military Training**





BACKGROUND

- Virtual Reality has the power to change life .
 - a) Buying experience



Ikea VR Experience



COURSES LIST

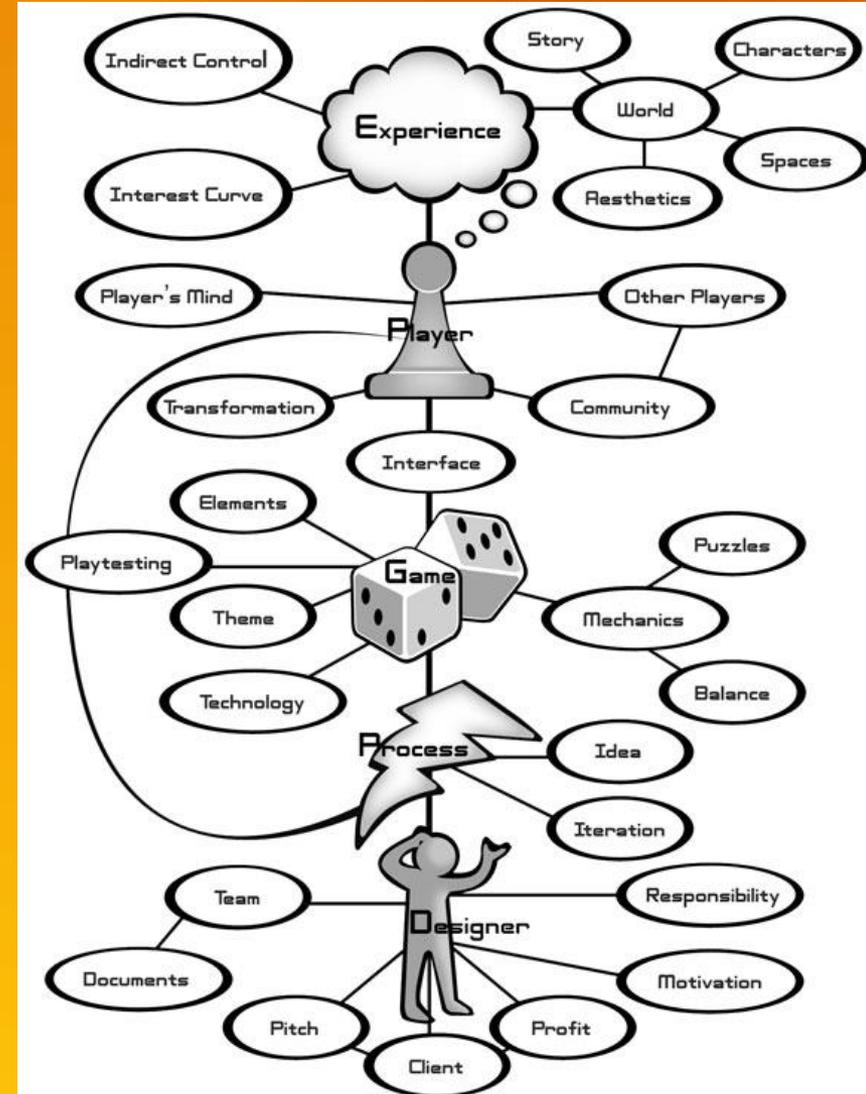
4th Semester :

- Game Design
- Computer Graphic



GAME DESIGN (2 SKS)

- This course comprises **general game theories**, **game design concept**, and its **implementation**.
- In this course the students will understand how to design a game with the mechanic and the rules behind the game.





GAME DESIGN (2 SKS)

- Example output from Game Design Course





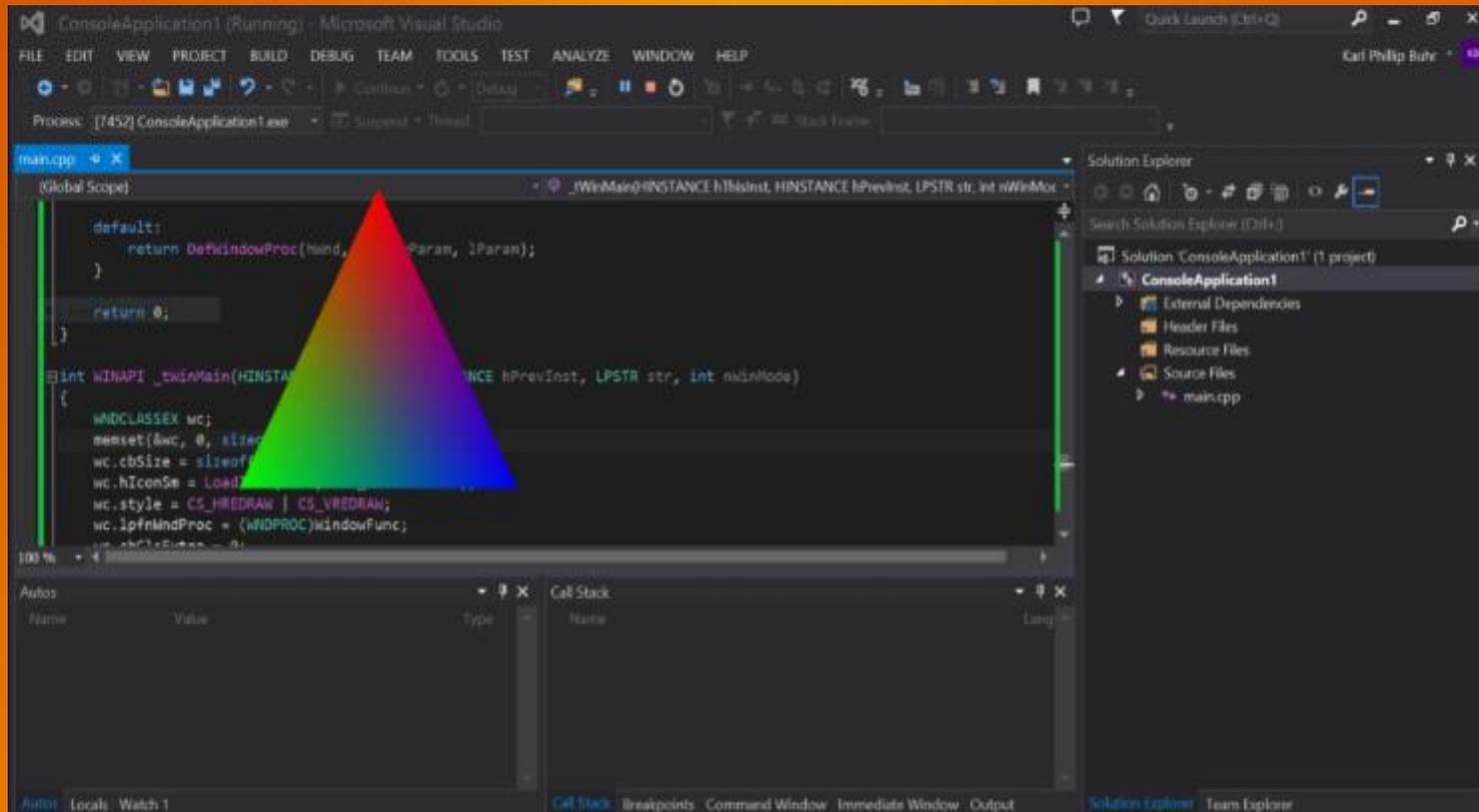
COMPUTER GRAPHICS (2/2 SKS)

- This course consists of computer graphics concept in 2D and 3D also data manipulation based OpenGL in kernel of graphics.
- The students will learn about the fundamental from computer graphics and implement it in multimedia application.
- Programming Language to be used :
 - C++
 - OpenGL



COMPUTER GRAPHICS (2/2 SKS)

- The Example from Computer Graphics program :



OpenGL : Rendering Image



COURSES LIST

5th Semester :

- User Experience
- Game Programming
- Multimedia Programming Foundation



USER EXPERIENCE (2/2 SKS)

- This course introduces the methodology of designing the user experience that suitable with user requirement.
- The students will learn about how to implement the User Experience Concept in developing an application.
- Software to be used :
 - **Axure Software Prototyping**
 - **Android Mobile Platform**



USER EXPERIENCE (2/2 SKS)



- The example of User Experience Design :





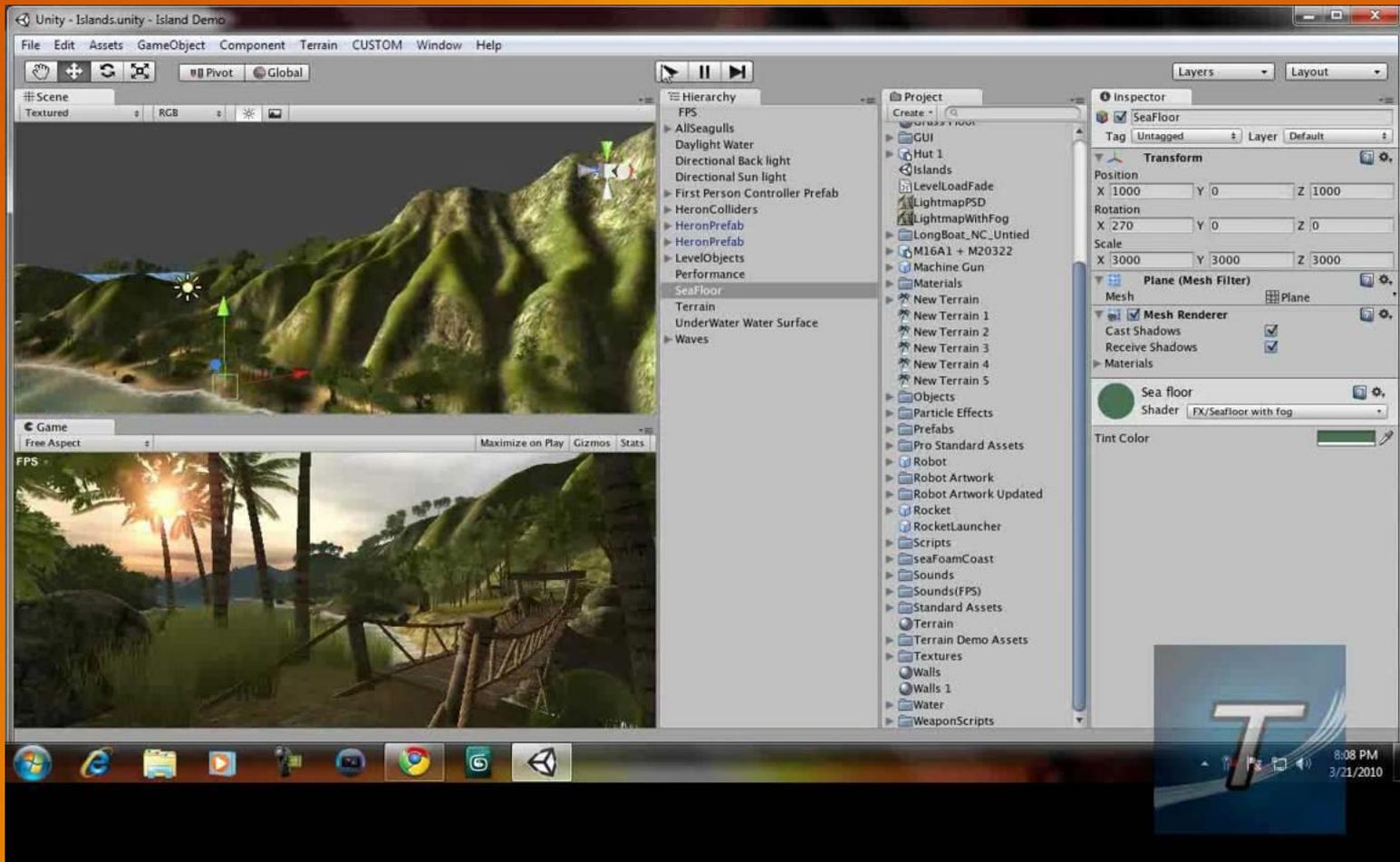
GAME PROGRAMMING (4 SKS)

- This course provides fundamental component system to develop game programming in Unity.
- The students will learn about how to create assets, developing graphics in 2d and 3d games, adding interactive devices and items within the game using Unity.
- This course will take place in practical class.
- Software to be used : Unity 5.0



GAME PROGRAMMING (4 SKS)

- The Example of Game Programming in Unity





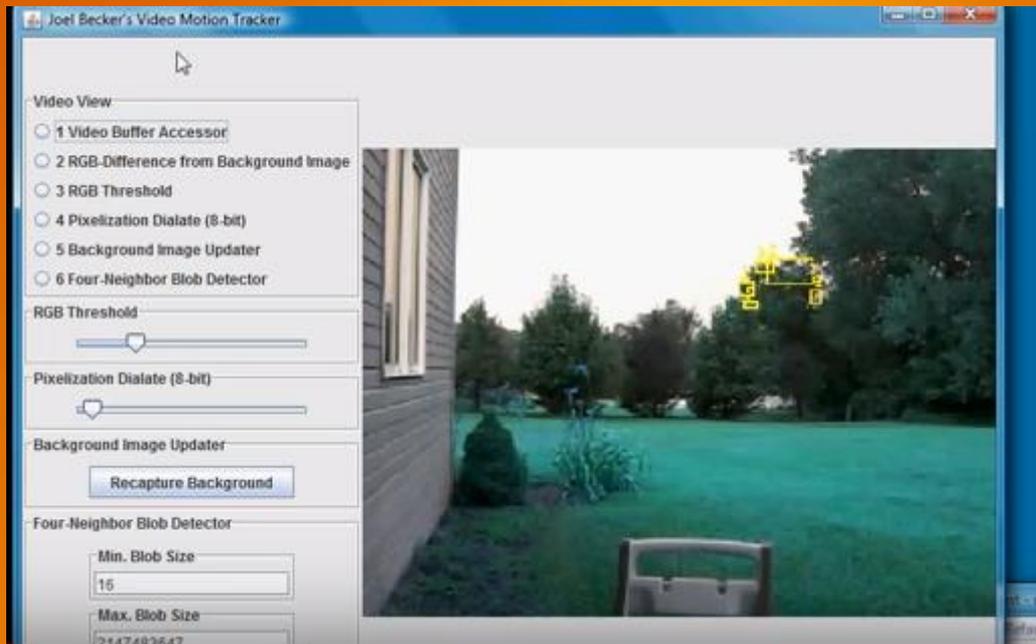
Multimedia Programming Foundation (2/2 SKS)

- This course is the continuation from Multimedia System Course.
- In this course will learn deeply about the image manipulation , animation, audio and the digital video.
- The students will learn how to create and manipulate the image, audio and video using Java.
- Software to be use : **Java Language.**



Multimedia Programming Foundation (2/2 SKS)

- The Example of Java Media Framework

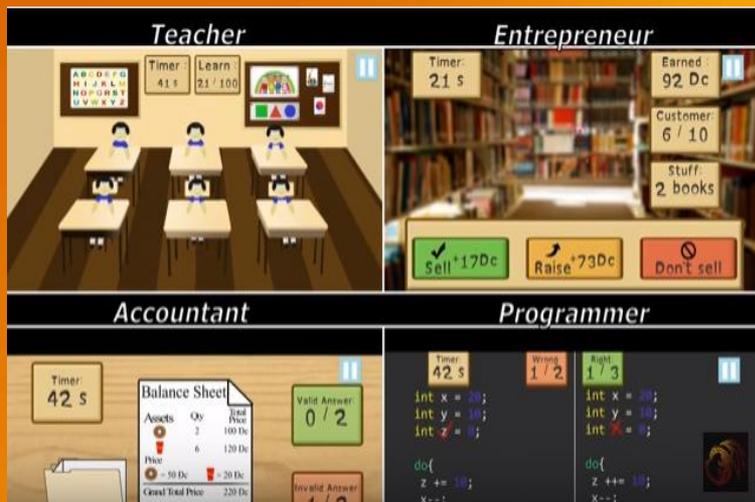




PRODUCTS OF INTERACTIVE MULTIMEDIA

Dream Life is a simulation game that show us the portrait of adulthood, where they can claim their right to become, to know, to create, to share, and to care in a fun ways. The jobs given in this game is based on Holland code (RIASEC) test where there is 6 works personalities. Recommended for 8 - 14 years old.

First Winner Developer Challenge Games Competition and **2nd winner** Hexion mobile apps





PRODUCTS OF INTERACTIVE MULTIMEDIA



- Computer-Assisted-Instruction (CAI) Apps
- Published on Windows Store
- The winner of HACKATHON 2013



ANIMOCLOPEDIA



PRODUCTS OF INTERACTIVE MULTIMEDIA

Nusantara Expedition : A kind of
Puzzle game for learning about ancient
kingdom in Nusantara





PRODUCTS OF INTERACTIVE MULTIMEDIA

QUALM : A Game as a self help tool that using
Cognitive-Behavioral Therapy for Social Anxiety
Disorder Patient





PRODUCTS OF INTERACTIVE MULTIMEDIA

- **Aja Dumeh** : Mobile Application for Learning Javanese with speech recognition



- **Download :**
<https://play.google.com/store/apps/details?id=com.thesis.jawa&hl=en>



PRODUCTS OF INTERACTIVE MULTIMEDIA

The screenshot shows the Google Play Store interface for the app 'Tebak Gambar'. On the left is the app icon, which features the text 'TEBAK GAMBAR' in a bold, yellow, comic-style font with black outlines, set against a red circular background with a teal border. To the right of the icon, the app title 'Tebak Gambar' is displayed in a large, dark grey font. Below the title, the text 'Tebak Gambar - May 17, 2014' and 'Puzzle' are shown in a smaller font. A green button with the word 'Installed' in white text is highlighted with a red rectangular box. To the right of this button is another empty rectangular box, also outlined in red. Below the 'Installed' button, there is a green information icon followed by the text 'This app is compatible with your device.' At the bottom of the listing, there are five stars with the first four filled, followed by '(65,289)'. To the right of the stars is a red 'g+1' button with a small profile picture icon and the text '+28486 including You'.

- More than 65,000- download and 24,000 share and likes.
- Revenue based on ads placed on the apps.



PRODUCTS OF INTERACTIVE MULTIMEDIA



Math Maze



Switch It On



Let's Do Math



MonstaMania



Animal Guess



Poka-Poka



PRODUCTS OF INTERACTIVE MULTIMEDIA

- Application VR Biota Laut
 - Application for kid to learn about fish using VR Technology



Trailer : <https://www.youtube.com/watch?v=zj-VL8-gABo>



PRODUCTS OF INTERACTIVE MULTIMEDIA

- Chordigy : Application AR for Learning Chord Guitar



Trailer : <https://www.youtube.com/watch?v=xXnZsmN9YsM>



Contoh Topik Peminatan Interactive Multimedia

- Analysis And Design Of Augmented-reality Based Furniture Assembly Instruction Application .
- Aplikasi Mobile Game Pengenalan Budaya "Wayang Defenders" Berbasis Android.
- Analysis And Design Of Augmented Reality Based Furniture Assembly Instruction Application.
- Aplikasi Untuk Relief Candi Borobudur Dengan Fitur Augmented Reality Berbasis Android .
- Rhythm Game "Kazeco" Using Unity 3d Engine Technology On Android Based Mobile Device.
- Vr Space : Application Vr For Explore Planets
- Virtual Guide Tour for Museum Guide using AR Technology



RESEARCH TOPIC

Multimedia System Support and Networking

- Multimedia content analysis
- Content-based multimedia retrieval
- Multimedia security
- Audio / image / video processing, compression
- etc

- Multimedia communication
- Multimedia streaming

- Hypermedia systems
- User interfaces
- Authoring systems
- Multimedia interaction
- Multimedia integration

Multimedia Processing and Coding

Multimedia Tools, End Systems, and Applications



CAREER OPPORTUNITIES

Chief
Technology
Officer
Chief
Information
Officer
IT
Consultant

Management

Multimedia
Designer
Multimedia
Engineer
Game
Engineer
User
Experience
Designer
VR
Developer
AR
Developer

Multi Media

Lecturer /
Trainer
Researcher

Scientist



CONTACT

- For further question , contact :



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