



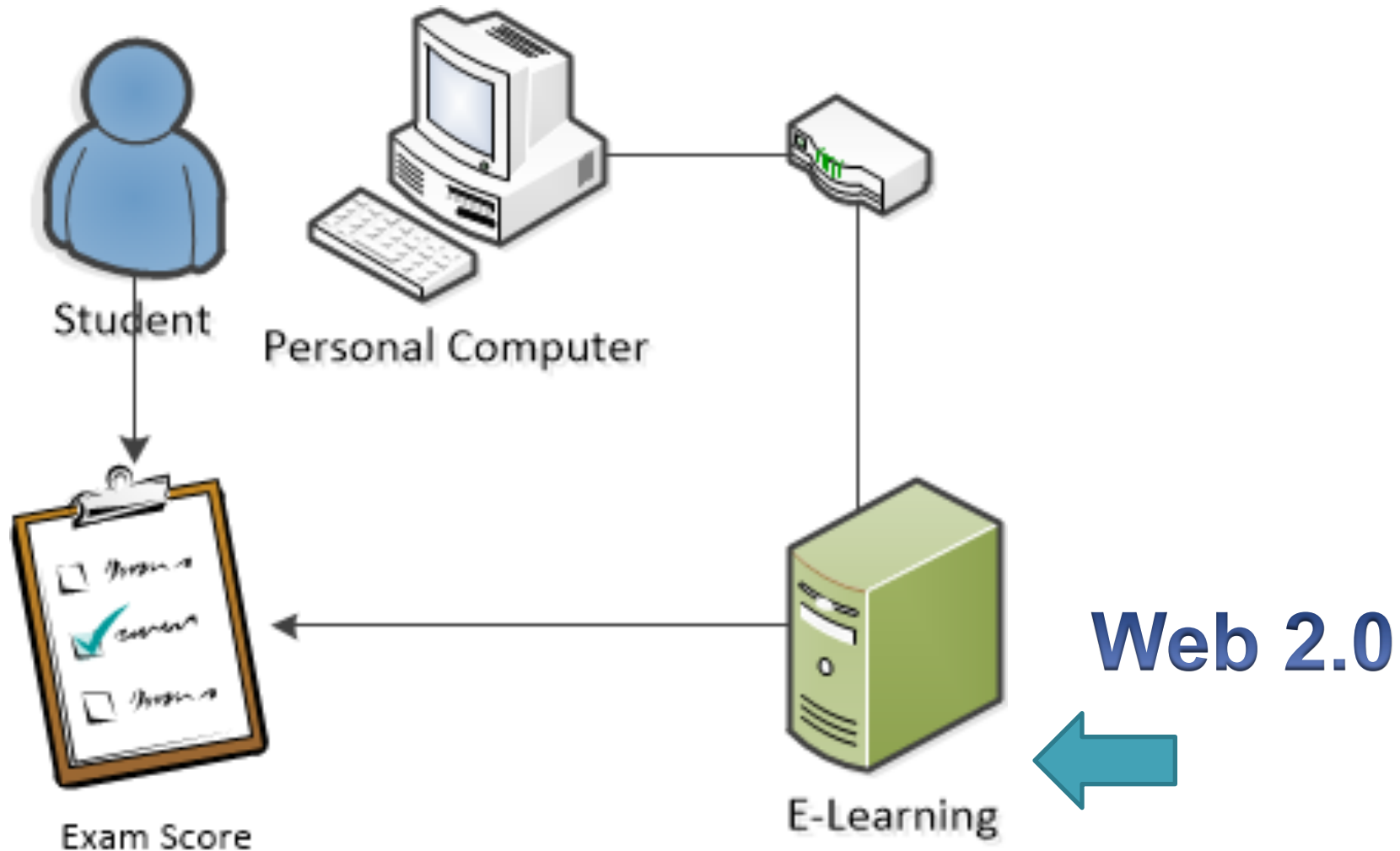
Oscar Wongso

# CONCEPTUAL GAMIFICATION FRAMEWORK FOR E-LEARNING SYSTEM BASED ON WEB 2.0 TECHNOLOGIES

# Outline

- Problems
- Objectives
- Overview of Conceptual Gamification Framework
- Demonstration
- Conclusion

# Problems

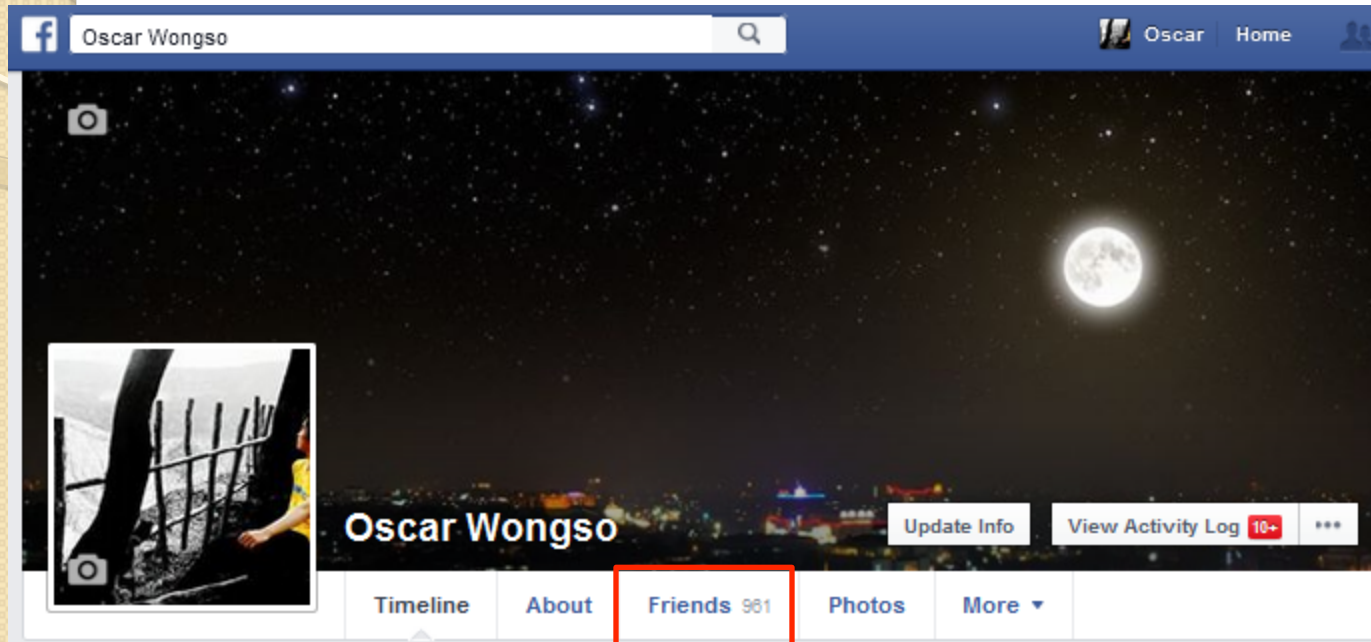


# Gamification

“The act of making non-games application into games, by implementing game mechanics in the design” (Muntean,2011)

“Combine Intrinsic & Extrinsic Emotion to raise Motivation” (Viola,2011)

# Gamification Cont.



Maranatha Chirstian Univers



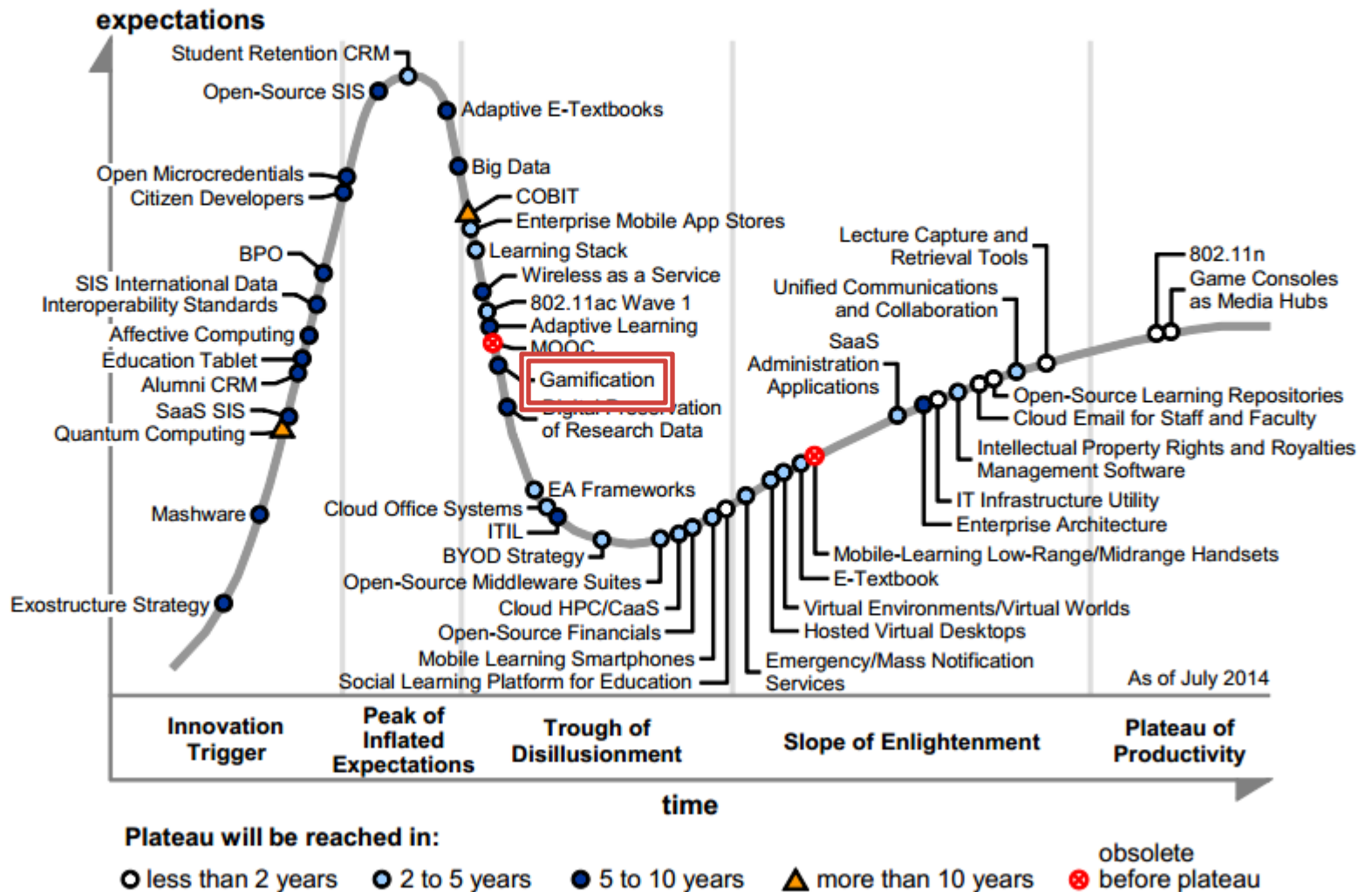
Oscar Wongso

TWEETS	FOLLOWING	FOLLOWERS	FAVORITES
288	179	144	1

Tweets Tweets & replies Photos & videos

# Problems Cont.

(Gartner Hype Cycle For Education 2014)



# Objectives

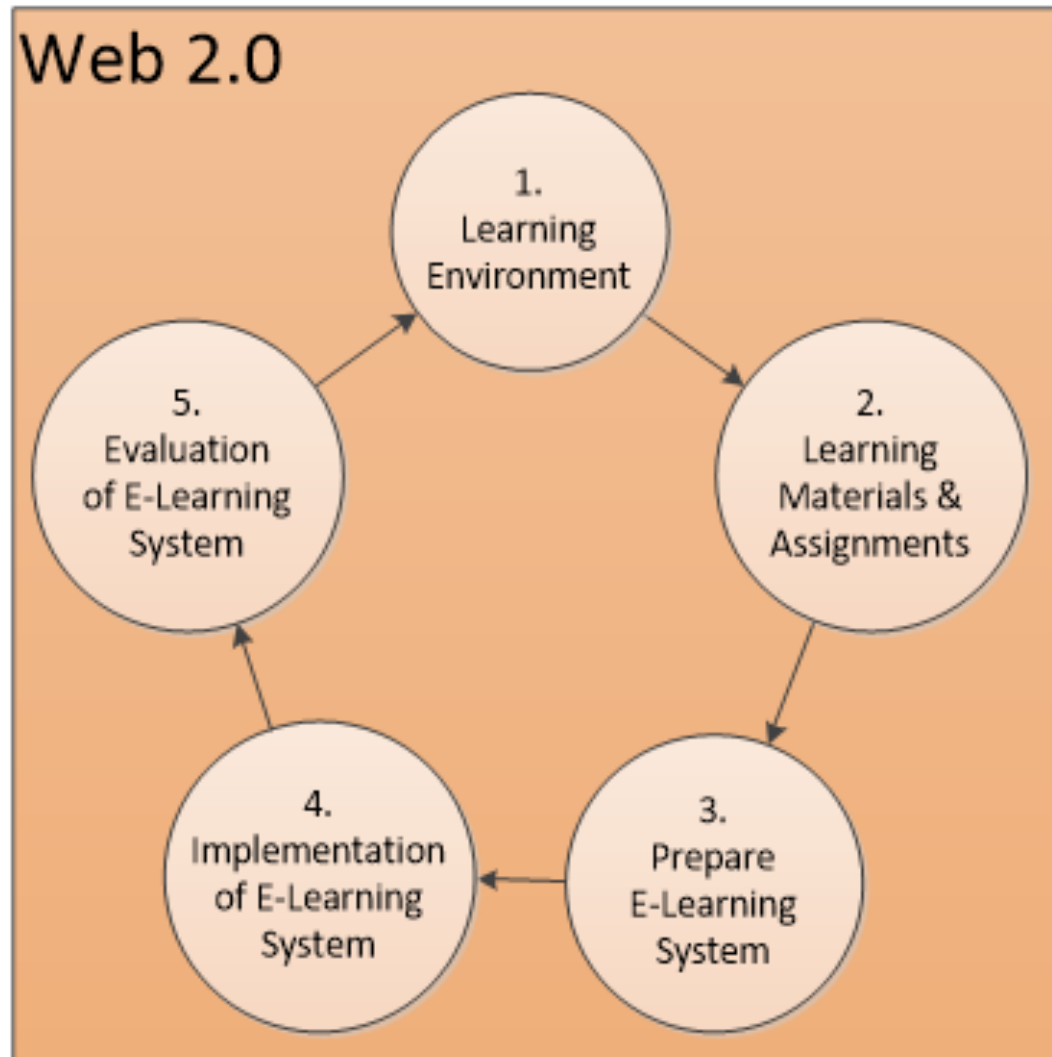


**ADDIE Model**



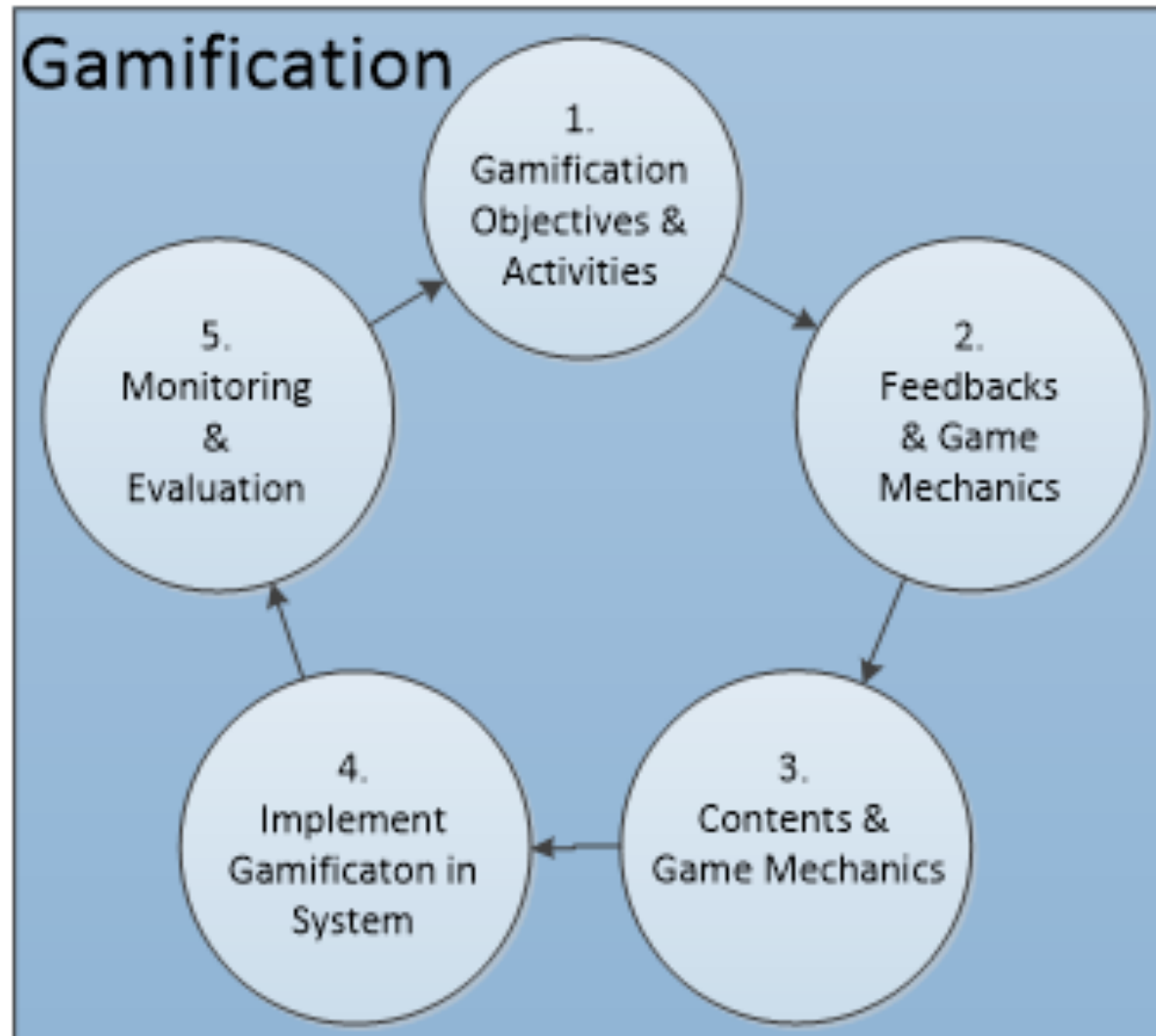
**Conceptual  
Gamification Framework  
E-Learning System**

# Web 2.0 Framework Analysis

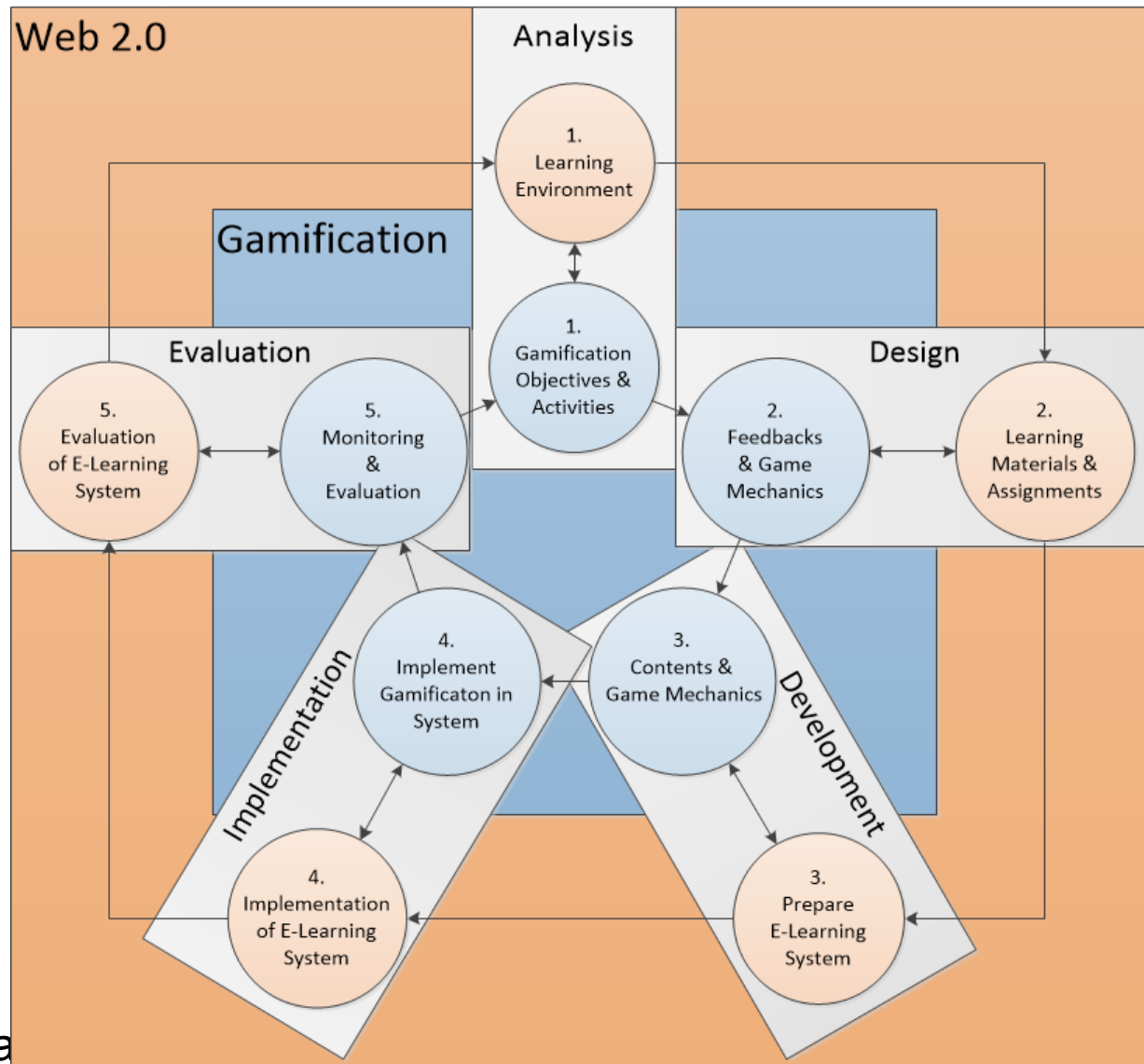




# Gamification Framework Analysis

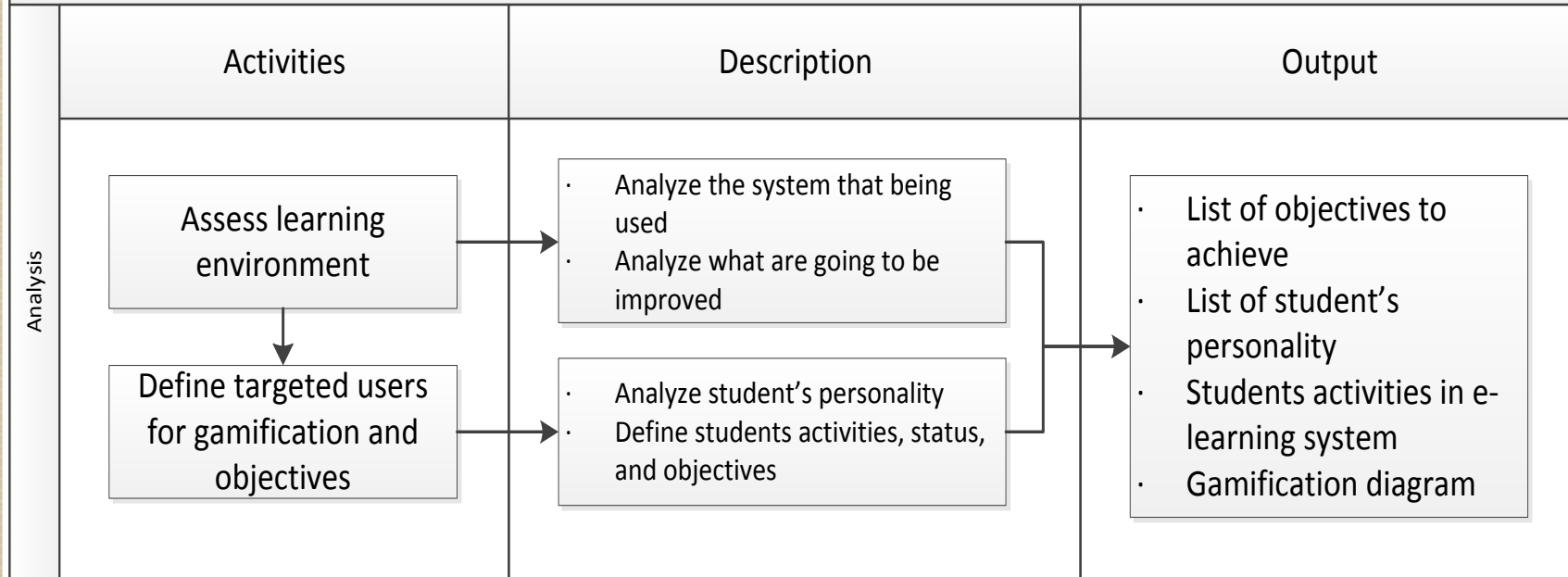


# Conceptual Framework Design

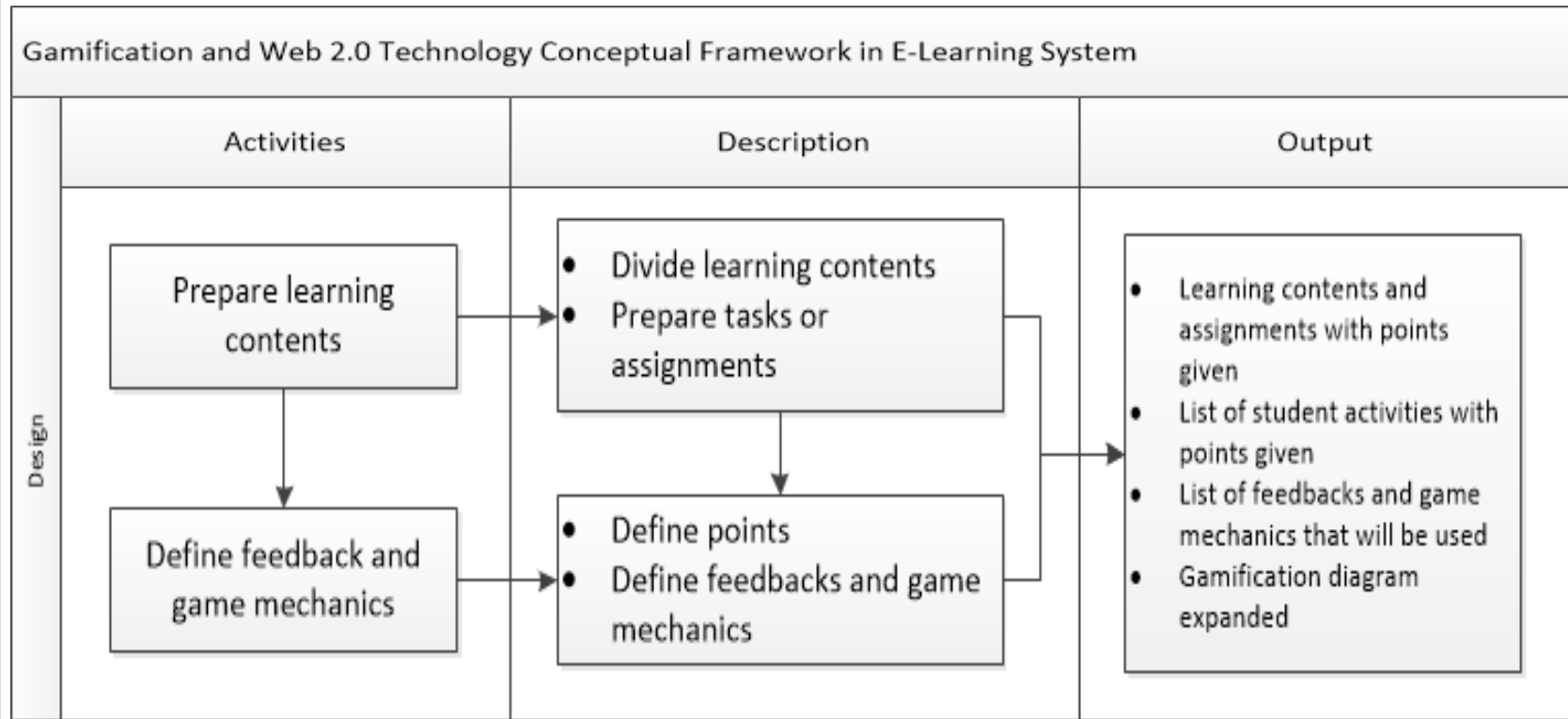


# Analysis

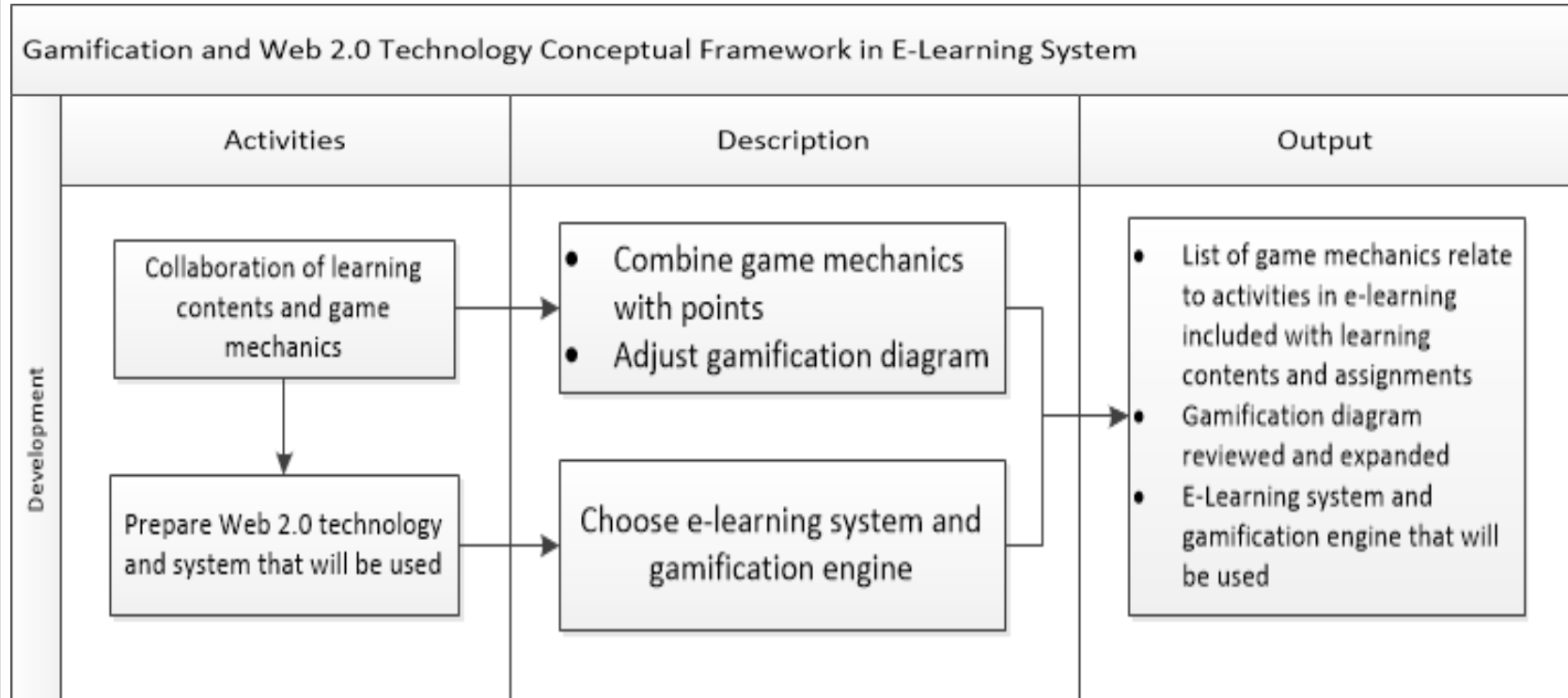
Gamification and Web 2.0 Technology Conceptual Framework in E-Learning System



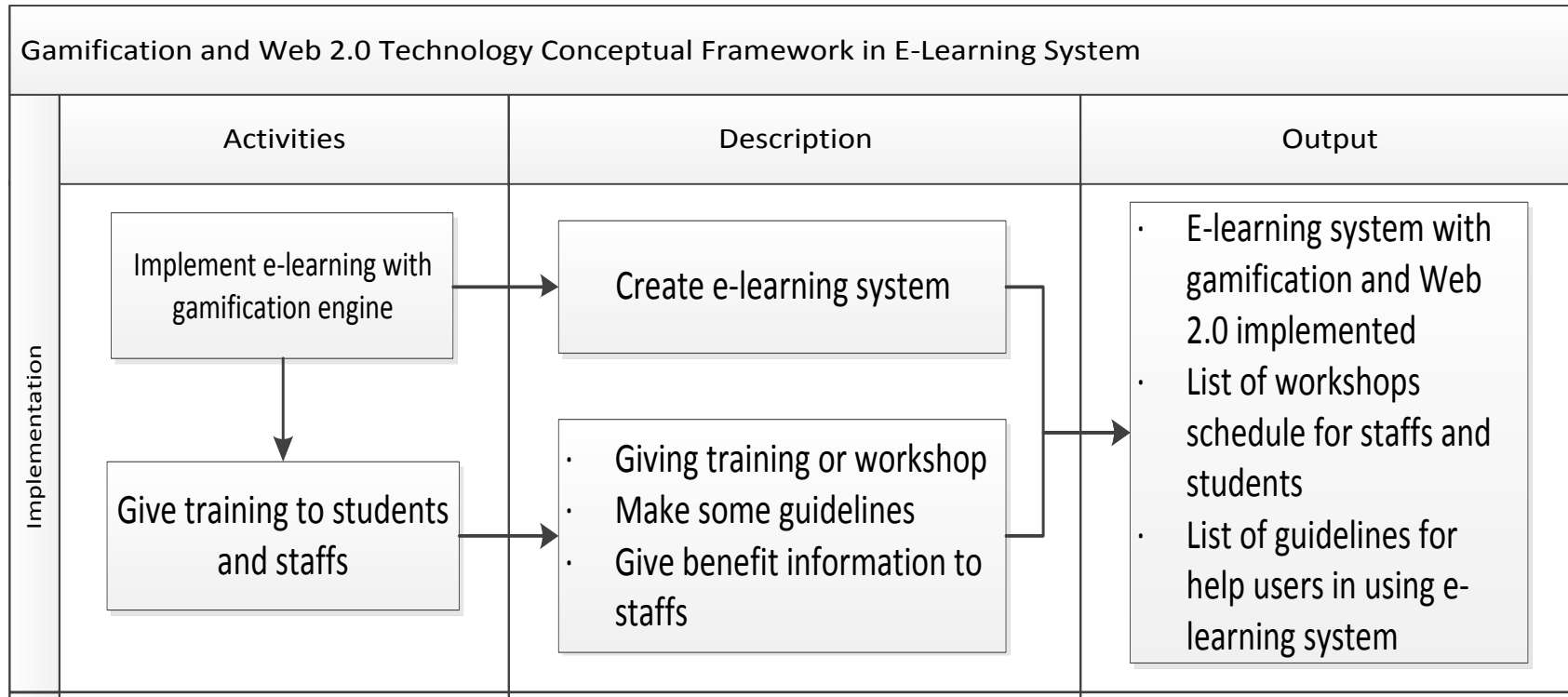
# Design



# Development



# Implementation



# Evaluation

Gamification and Web 2.0 Technology Conceptual Framework in E-Learning System			
	Activities	Description	Output
Evaluation	Evaluate, review, and monitoring	<ul style="list-style-type: none"><li>Monitoring users activities in e-learning system</li><li>Ask staffs and students for opinions</li><li>Review and evaluate e-learning system for improvement</li></ul>	<ul style="list-style-type: none"><li>List of staffs and students opinions in surveys</li><li>Students activities report in using e-learning system</li></ul>

# Demonstration

## (WebLearningSystem.tk)

Case Study:

Faculty of Information Technology  
(Maranatha Christian University)

The screenshot displays the Web Learning System (WLS) interface. The top navigation bar includes "Website for learning web", "My courses", and a user profile "System". The main header reads "Web Learning System". Below this is a breadcrumb trail: Home > C > Mi > WP. The main content area is titled "Web Programming" and contains a list of links: "Link W3SCHOOL", "Chatting Untuk Diskusi", "Forum Diskusi", and "Diskusi Tugas Besar & Pertanyaan". A note below these links says: "Silakan jika ada yang mau ditanyakan mengenai tugas besar dan lainnya." Below the links is a section titled "5 January - 11 January" with a list of topics: "01. Introduction", "02. HTML Dasar", "03. HTML Lanjut", and "04. Table". On the right side, there are several widgets: "ACHIEVEMENT PROGRESS" showing a progress bar and a "Chatting Untuk Diskusi" notification; "SEARCH FORUMS" with a search bar and "Go" button; "LATEST NEWS" with a "Add a new topic..." button; "UPCOMING EVENTS" with a "Go to calendar..." button; and "RECENT ACTIVITY" showing activity since Tuesday, 20 January 2015. A sidebar on the right contains a "NAVIGATION" menu with links to Home, My home, Site pages, My profile, Current course, and WP (Participants, Badges, General). At the bottom right, a "WLS Web Learning System" badge shows a progress bar and "810 pts to level up" with a "Start" button.



# Analysis



**MARANATHA**  
Christian University

Jurusan  
**S1 Teknik Informatika**

You are not logged in. (Login)

English (en) ▼

## Main Menu

Berita Situs

## Course categories

- SEMESTER 1
- SEMESTER 2
- SEMESTER 3
- SEMESTER 4
- SEMESTER 5
- SEMESTER 6
- SEMESTER 7
- SEMESTER 8
- Jalur Game dan Mobile
- Jalur Web dan Multimedia
- Jalur Komputasi Cerdas
- Jalur Sekuritas dan Jaringan
- Search courses ...
- All courses ...

## Online Users

(last 5 minutes)  
None

## Login

## Course categories

### SEMESTER 1

- IN010 Dasar Pemrograman
- IN011 Pengantar Teknologi Informasi
- IN012 Pengenalan Aplikasi Komputer
- IN013 Matematika Informatika
- IN014 Bahasa Inggris 1
- MK024 Kewarganegaraan
- MK060 Fenomenologi Agama
- MK062 Pendidikan Agama Kristen \*)

### SEMESTER 2

- IN020 Algoritma dan Struktur Data 1
- IN021 Pemrograman Web 1
- IN022 Jaringan Komputer 1
- IN023 Aljabar Linier dan Matriks
- MK017 Pancasila

### SEMESTER 3

- IN030 Algoritma dan Struktur Data 2
- IN031 Basis Data 1
- IN032 Rekayasa Perangkat Lunak 1

## Calendar

January 2015

Sun	Mon	Tue	Wed	Thu	Fri	Sat
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

# Analysis Gamification Diagram



# Design

Lesson Materials
Introduction
HTML Part 1
HTML Part 2
Table
Form + Introduction to PHP
CSS Part 1
CSS Part 2
Javascript Part 1
Javascript Part 2
Jquery
Introduction to HTML5
XML and XHTML

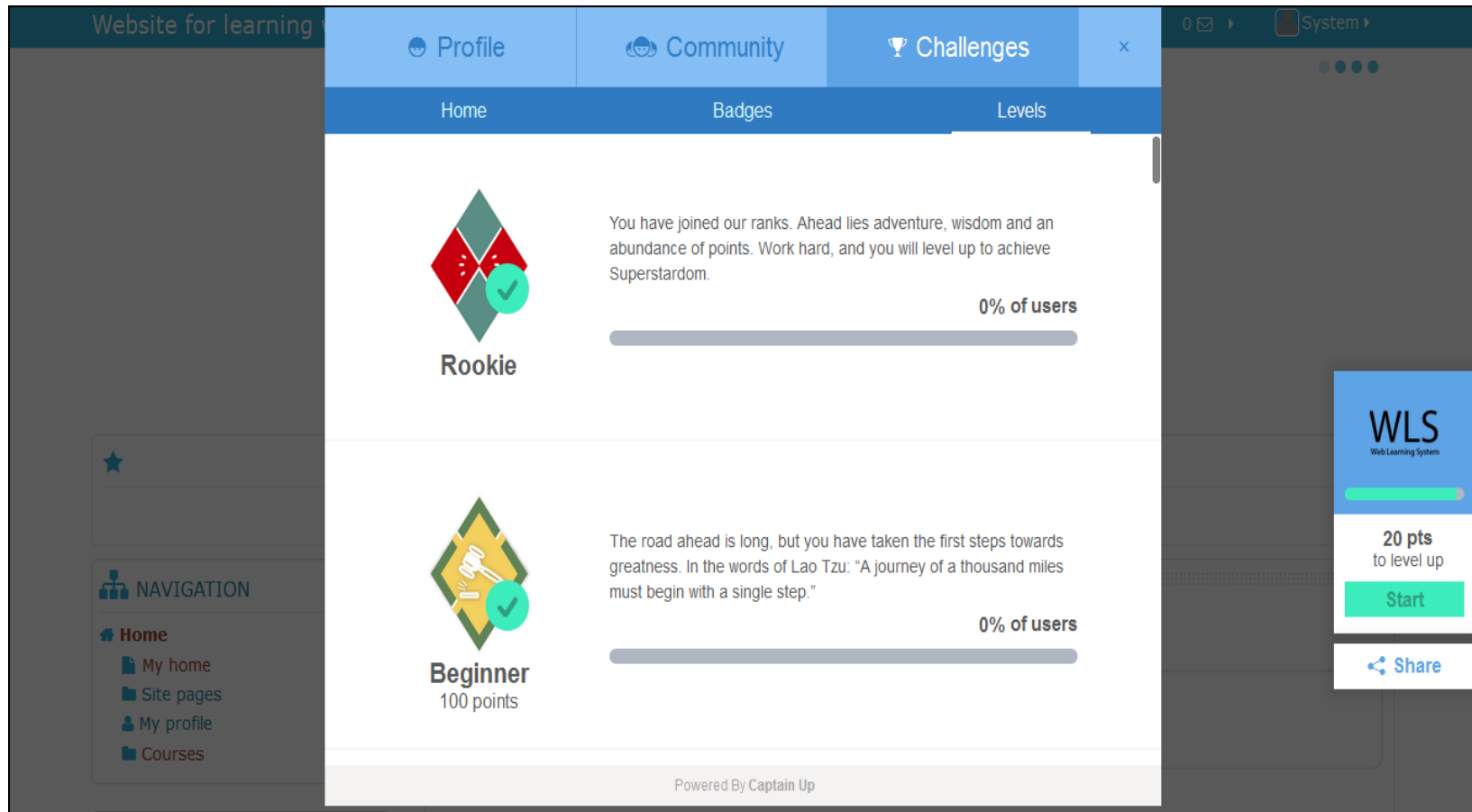
Student Activities	Points Given
Visit	30
Read Lesson Materials	50
Submit Assignment	40
Add or comment in forum	20
Propose new assignment	1000
Propose new lesson materials	1000

# Development

<b>Achievement Titles</b>	<b>Points Required</b>		<b>Achievement Titles</b>
<b>Rookie</b>	0	6100	<b>Advanced</b>
<b>Beginner</b>	100	7300	<b>Specialist</b>
<b>Novice</b>	200	8800	<b>Veteran</b>
<b>Apprentice</b>	350	10000	<b>Scholar</b>
<b>Enthusiast</b>	500	12000	<b>Virtuoso</b>
<b>Craftsman</b>	700	14000	<b>Star</b>
<b>Artisan</b>	900	16000	<b>Leader</b>
<b>Journeyman</b>	1200	20000	<b>Champion</b>
<b>Expressive</b>	1500	32000	<b>Governor</b>
<b>Skilled</b>	1800	44000	<b>Master</b>
<b>Adept</b>	2100	79000	<b>Grandmaster</b>
<b>Intermediate</b>	2500	110000	<b>Elite</b>
<b>Experienced</b>	2900	220000	<b>Guru</b>
<b>Proficient</b>	3900	330000	<b>Superstar</b>
<b>Professional</b>	4900	650000	<b>Legend</b>

# Implementation

## (Moodle & CaptainUp)



# Evaluation


Profile

Community

Challenges

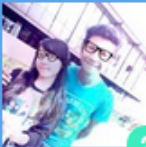
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This Month ▼



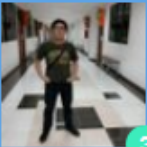
1

Yogi Yodha  
9,300 pts




2

Adi Restu Putranto DjaLimun  
-----




3

Krispandu Zagoto  
1,830 pts



4

Muhammad Zaki Ekonugroho  
-----




5

Wilfandy Aser  
50 pts

➤


Community Feed

You could be here, join the game!




Muhammad Zaki Ekonugroho leveled up to **Craftsman**

10 hours ago




Muhammad Zaki Ekonugroho has achieved **I Get Around**

10 hours ago



Muhammad Zaki Ekonugroho leveled up to **Enthusiast**

10 hours ago



Yogi Yodha tweeted about **a page**

11 hours ago

Powered By Captain Up

# Conclusion

## Analysis

- Analyze learning environment and define target user

## Design

- Prepare learning contents and game mechanics

## Development

- Combine learning contents with game mechanics

## Implementation

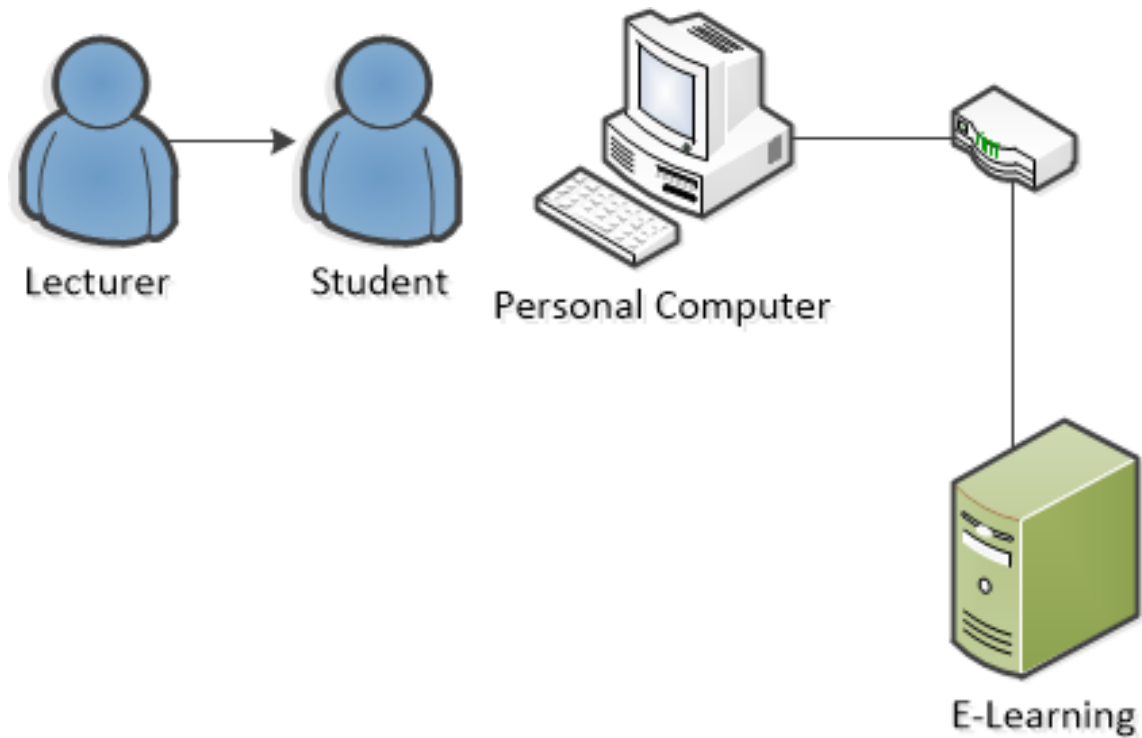
- Implement e-learning system and prepare training for users

## Evaluation

- Evaluation and review of e-learning system and gamification design

# Conclusion Cont.

## Demonstration:







# Thank You



# Any Questions?