# Advanced Games

**Game Code Architecture** 

### **Week 1 Game Review**

What are you proud of? What are you ashamed of?

What would you do differently?

How would your game scale?

# What does a game need?

#### Content

 3d Models, Shaders, Textures, Text, Fonts, Music, Video, Saves, levels/gamestate.

#### Processing & io & Mechanics

- Rendering, User input, Networking, Physics, AI, Gameplay rules.
- Q: When does a game need any of the above?
- A: Right Now (and without warning)

### **Abstraction**

And so we build **Games Engines**But do we need them?
We didn't always have them.

Q: How complex do you think a game needs to before you think you need to write <u>Engine</u> <u>Code</u>?

## When to start the engine

A:

A: Once your code gets abstract enough

A: From the start

A: Never, and write some crazy[fast/bad] code

## **But in reality**

3 people in a team, you will need some good code structure to support you.

And basing on the TRC, you will needs some pretty robust and abstract code

Let's restart

# Advanced Games

How to Build a Game Engine

# Step 1

#### **Build the Wall**

#### Game Code

User Input, File IO, job Scheduling

#### **Engine Code**

User Input, File IO, job Scheduling

**API**