

# Writing a Design Document

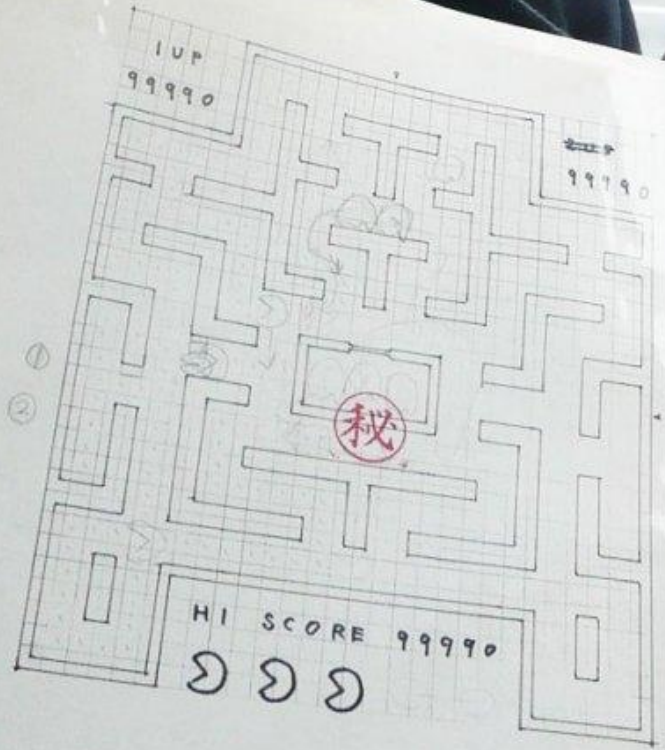
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*Game Creation for People Who Want to Make Games*  
*CMU 98-127*

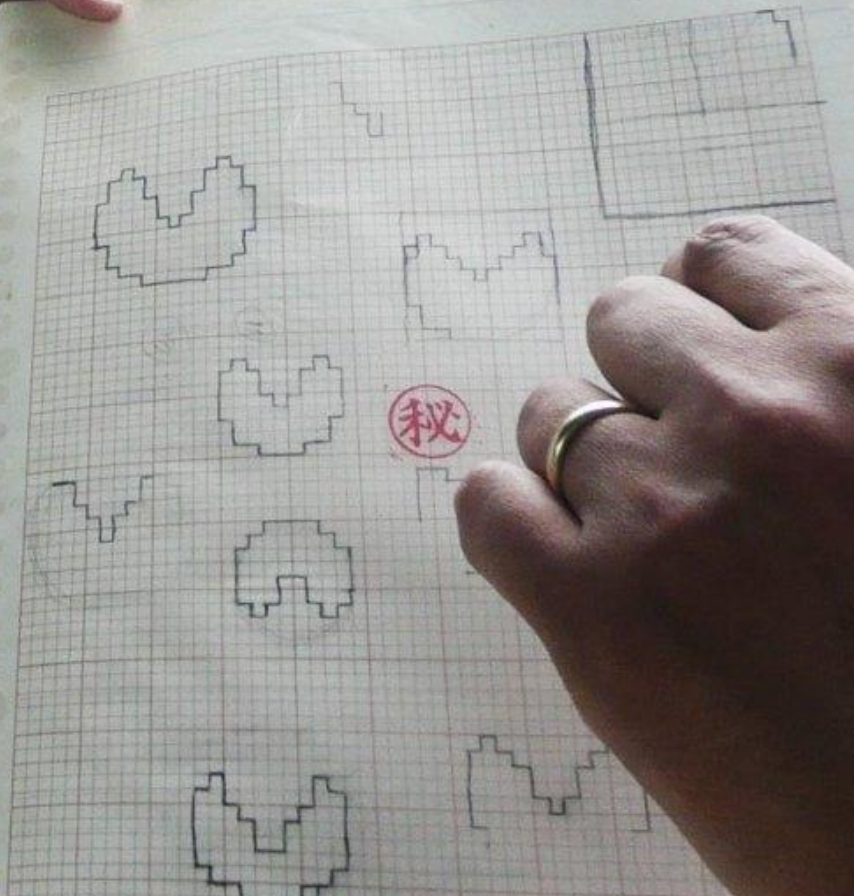
*[www.gamecreation.org/course](http://www.gamecreation.org/course)*

# **Warm Up: Design Pac Man**

56. BOARDING PASS



109-2131 A



# What is a Game Design Document?

- Answer is different depending on who you ask...
- Commonality: *Specification* of what your game should be
- Questions you want to answer:
  - What are the *goals* of the game? What are the goals of the *GDD*?
  - If the game has a narrative, what is it? *Characters, Plot, Progression*.
  - What are the major gameplay systems, and how do they help to achieve the goal? How do they coexist with the story?
  - What will be the art style of your game?
  - How will those gameplay systems realistically be implemented? From technology and organizational perspective.

# Goals

There are two kinds of “goals” you should think about when writing your Game Design Document:

1. What is **your goal as a creator / designer**? What are you trying to achieve fundamentally by making this?
2. What is the **player’s goal when playing the game**? What drives them to keep playing?

# What are the player's Goals?

“When a goal is set in a player's mind, it gives them tremendous motivation to see it through. Having a clear set of well-constructed goals or quests is crucial to keeping your players engaged and motivated. Good game goals are as follows:

- **Concrete:** Players understand and can clearly state what they are supposed to achieve.
- **Achievable:** Players need to think that they have a chance of achieving the goal. If it seems impossible to them, they will quickly give up.
- **Rewarding:** A lot goes into making an achieved goal rewarding. If the goal has the right level of challenge, just achieving it at all is a reward in itself. But why not go further?...”

– Jesse Schell, *Book of Lenses*

# What are the designer's Goals?

Write down a handful of explicit goals that represent the core purpose or the desired experience



## Establishing Pillars

Mutants with Super Powers!

RPG Elements

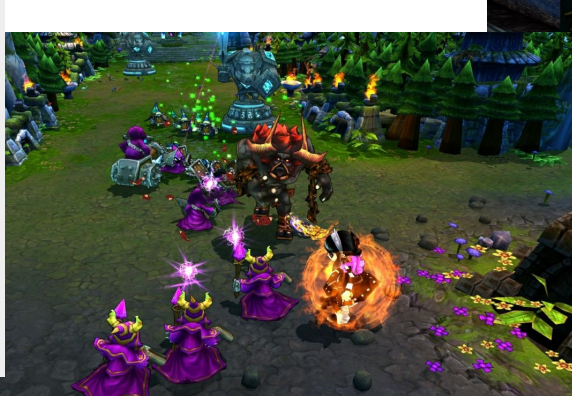
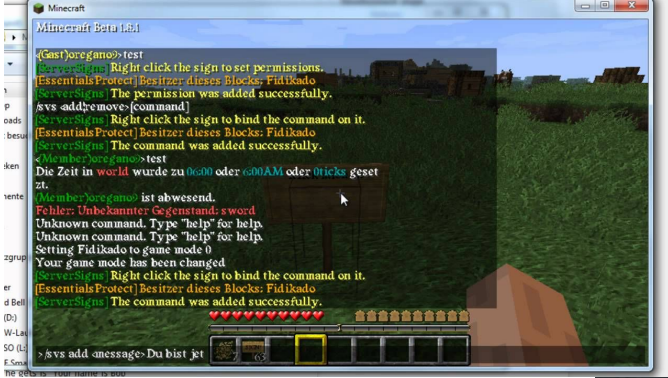
Epic Storyline

Marvel Universe

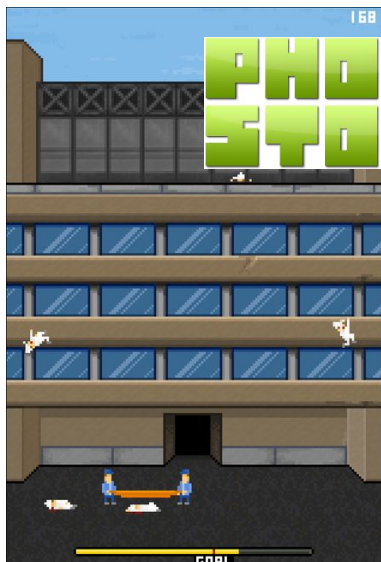


Every time you hit a hard decision, use the pillars to choose the option that respects your original goals the best.





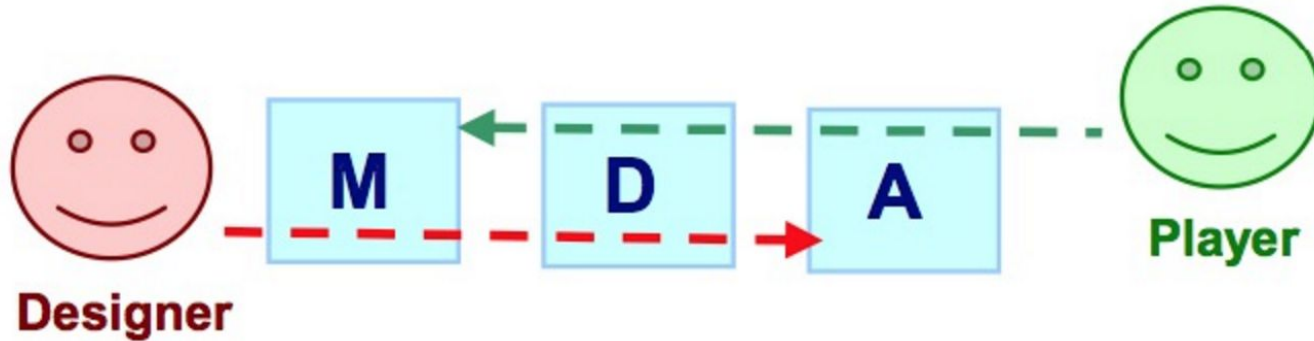
# Does a game have to be fun?





# Mechanics, Dynamics, Aesthetics

- **Mechanics:** Describe the specific details of how the game functions
- **Dynamics:** Emergent qualia of composed Mechanics
- **Aesthetics:** Artistic values as interpreted by the audience



What are the Mechanics, Dynamics, and Aesthetics of your game?

# Narrative

- At your experience level as developers, your games will likely not have a significant narrative that needs to be developed
- But as a **player**, the story is *incredibly important* to your pitch! If you seriously consider narrative it can add a lot to your GDD.
- Things you should include (if applicable):
  - Characters and their goals (introduce *first*)
  - Significant Events and Story Themes
  - Story Presentation (e.i. cut scenes, voice over, letters. Be detailed)
  - How does the narrative resonate with the mechanics?

# Narrative



“An important part of the art of storytelling is to create characters that the guests can empathize with easily, for the more the guests can empathize with the characters, the more interesting the events become that happen to those characters.”

– Jesse Schell, **Book of Lenses**

# Describing Major Gameplay Systems

- The bread and butter of your GDD. Spend the most time on this!
  - There should be *minimal doubt* among a team reading the document of what the gameplay will be like
- You want to include:
  - The core gameplay loop
  - Items and Powerups
  - Progression and Challenge: How does the game get harder?
  - Failure / Losing Condition: Very important and often forgotten!
  - Victory Condition (Not required! See Pacman, Tetris, etc.)



# Describing Major Gameplay Systems

“Game designers must learn to use their x-ray vision to be able to see past the skin of a game and quickly discern the skeleton, which is defined by the game mechanics.

But what are these mysterious mechanics?

Game mechanics are the core of what a game truly is. They are the interactions and relationships that remain when all of the aesthetics, technology, and story are stripped away.”

– Jesse Schell, **Book of Lenses**

# Art Style

- Not required, but talking about your art style can add to your pitch.
- *Defining an art style will ensure that the whole game looks like one game*
  - How would you document the art style of Borderlands or Minecraft?
- Sketch out concepts before starting any assets!
- How does the art style serve the game?
- Have a plan for sound and music. How do they fit into the overall feeling?





# Technical & Organizational Considerations

- Technical Considerations
  - What platforms will your game run on?
    - PC (Standalone? Browser?), Console, Mobile, Board Game, ...
  - What engine will you use?
    - Unity, Unreal, Custom Engine...
- Organizational Considerations
  - Do you plan on making money? How is that gonna work?
    - Is there a market for your game? How will you advertise it?
  - What kind of team will you need?
  - What will you use for project/code management?
    - Trello, JIRA, Slack, Git/Github, Email...

# Scope

Hofstadter's Law: It always takes longer than you expect, even when you take into account Hofstadter's Law.

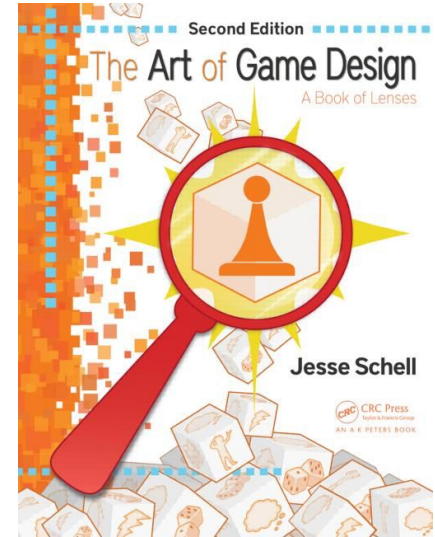
Pac-Man is too big.

A small scope with time to polish beats a buggy unfinished game with an ambitious scope.



# Resources / References

- Jesse Schell – *The Art of Game Design: A Book of Lenses*
  - The book on Game Design.
  - Jesse is ETC faculty and teaches 53-409 Game Design here! (this is the textbook)
  - Available **free** for CMU students online through <http://library.cmu.edu>
- [Gamasutra: Creating a Great Design Document](#)
- [Gamasutra: How to Write a Game Design Document](#)



# Case Studies

<https://drive.google.com/drive/folders/1vMupAUzrmYHuMAdiB0XKRα1yAtpCw5mc?usp=sharing>