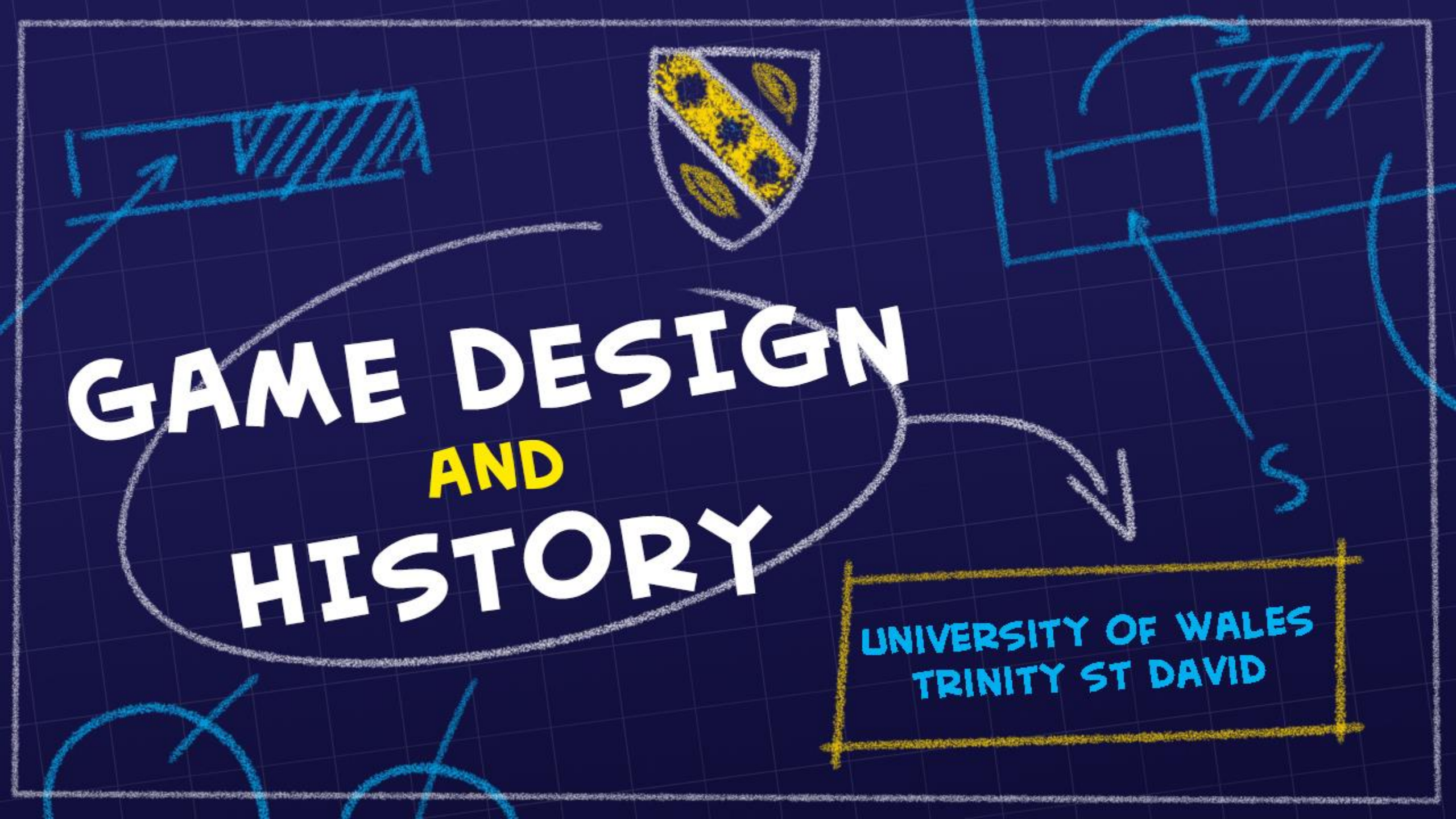




GAME DESIGN AND HISTORY

UNIVERSITY OF WALES
TRINITY ST DAVID



Game Design Documents (GDDs)

- What are they?
- Why are they needed?
- Scott Rogers: Game Design Documents
 - The 'One-Sheet'
 - The 'Ten Pager'
- Considerations for GDDs
- Problems with GDDs





Game design is the process of:



(Adams & Rollings, 2007 p.36)



Game design is the process of:

- Imagining a game

(Adams & Rollings, 2007 p.36)



Game design is the process of:

- Imagining a game
- Defining the way it works

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Game design is the process of:

- Imagining a game
- Defining the way it works
- Describing the elements that make up the game



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- Imagining a game
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 - Conceptual



Game design is the process of:

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 - Functional

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 - Artistic

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Game design is the process of:

- Imagining a game
- Defining the way it works
- Describing the elements that make up the game
 - Conceptual
 - Functional
 - Artistic
 - Other content

(Adams & Rollings, 2007 p.36)



Game design is the process of:

- Imagining a game
- Defining the way it works
- Describing the elements that make up the game
 - Conceptual
 - Functional
 - Artistic
 - Other content
- Transmitting that information to the team that will build the game



This can be achieved through the construction and distribution of a
Game Design Document.



GAME DESIGN DOCUMENTS

WHAT ARE
GDD'S?



What are Game Design Documents (GDDs)?



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Game Design documents are a **series of documents** produced by game designers to **tell others about their ideas**.



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Game Design documents are a **series of documents** produced by game designers to **tell others about their ideas**.

Documents vary between projects and designers but usually follow a common thread.



“Once upon a time, when coding a game involved one programmer (and maybe an artist) with a take-it-as-you-go budget and a loose deadline, documentation didn’t need to be taken so seriously. You knew what you wanted to make and you made it.”

- Tzvi Freeman (1997), Gamasutra: Creating a Great Design Document

GAME DESIGN DOCUMENTS

WHY ARE THEY
NEEDED?



Why are design documents needed?

Novice programmers and developers, particularly those keen to enter the games industry, often make a critical mistake – they **think of a game idea and start to develop it immediately.**

NAME OF GAME _____

DESIGN HISTORY _____

VERSION 1.10 _____

VERSION 2.00 _____

VERSION 2.10 _____

GAME OVERVIEW _____

PHILOSOPHY _____

Philosophical point #1 _____

Philosophical point #2 _____

Philosophical point #3 _____

COMMON QUESTIONS _____

What is the game? _____

Why create this game? _____

Where does the game take place? _____

What do I control? _____

How many characters do I control? _____

What is the main focus? _____

What's different? _____

FEATURE SET _____

GENERAL FEATURES _____

MULTI-PLAYER FEATURES _____

EDITOR _____

GAMEPLAY _____

THE GAME WORLD _____

OVERVIEW _____

WORLD FEATURE #1 _____

WORLD FEATURE #2 _____

THE PHYSICAL WORLD _____

Overview _____

Key Locations _____

Travel _____

Scale _____

Objects _____

Weather _____

Day and Night _____

Time _____

ENDERING SYSTEM _____

Overview _____

2D/3D Rendering _____

MERA _____

Overview _____

Camera Detail #1 _____



Why are design documents needed?

Adams and Rollings (2007) state that in commercial game development, this approach can be disastrous.

Modern game developers insist on having some form of written documentation while design work progresses.

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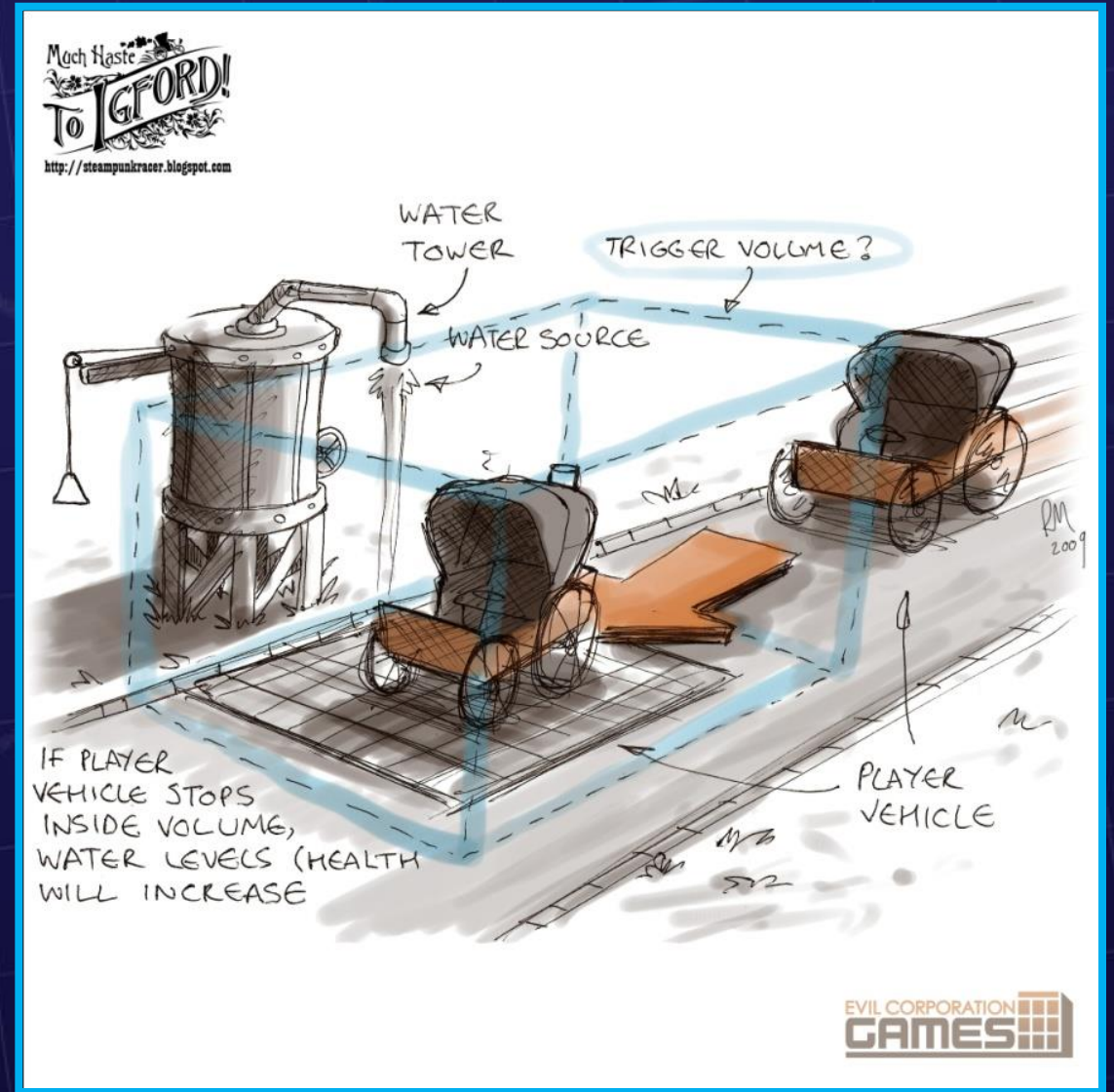
Camera Detail #1 _____



Design documents record decisions made during the design process, turning a vague idea into an explicit plan.

It is far **easier and cheaper** to correct or refine a design before code, artwork, or assets are created.

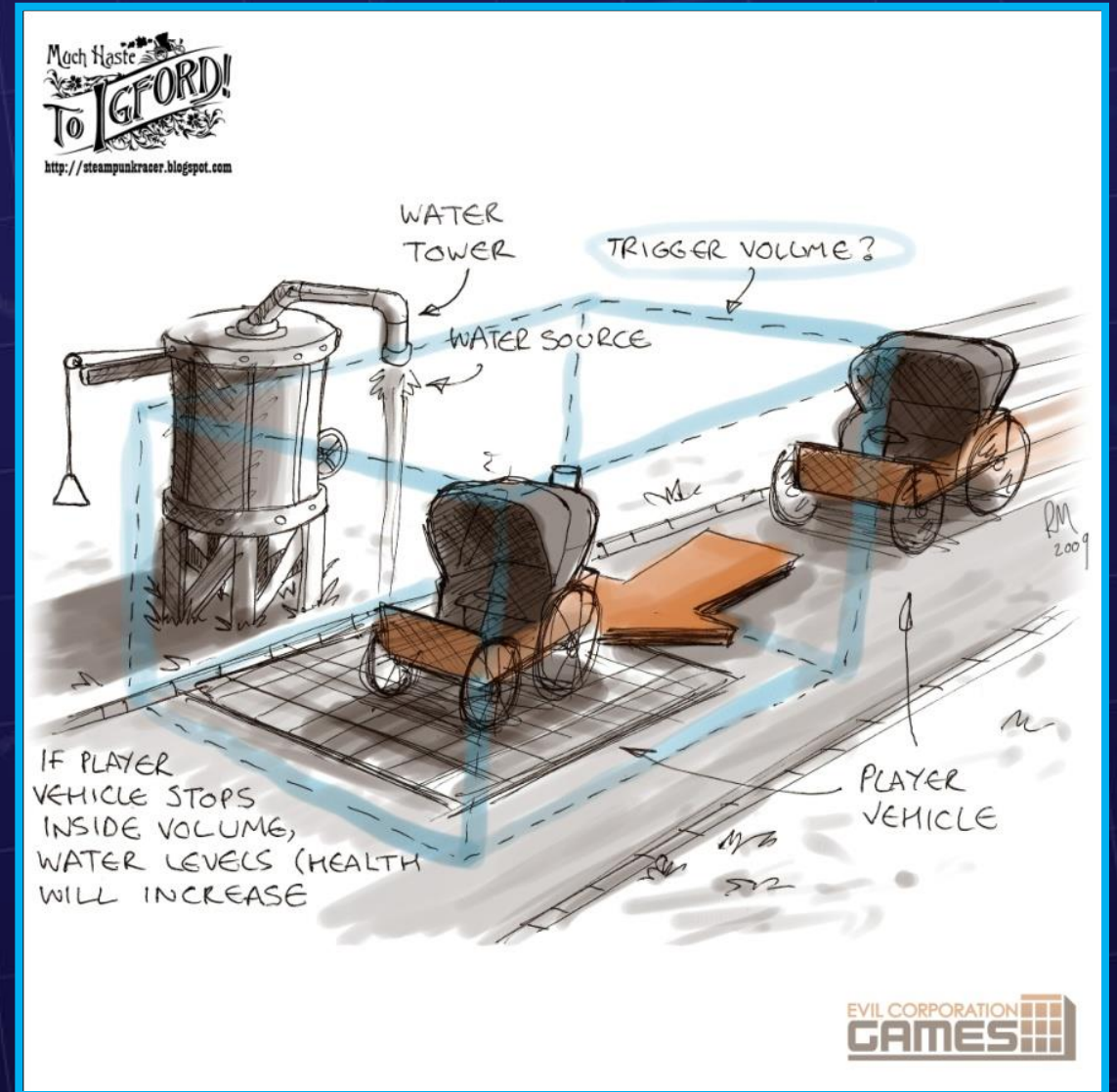
GDD'S: WHY ARE THEY NEEDED?





“A key part of game design is transmitting the design to **other members** of the team.”

Adams, E. & Rollings, A. (2007)
Fundamentals of Game Design, p.62





*“Creating documentation will help you as much as your team mates. If you keep the game “in your head” I guarantee there is going to be a moment when you have **too much to keep track of** and you will get overwhelmed.”*

- Rogers, S. (2010) Level Up!, p.72



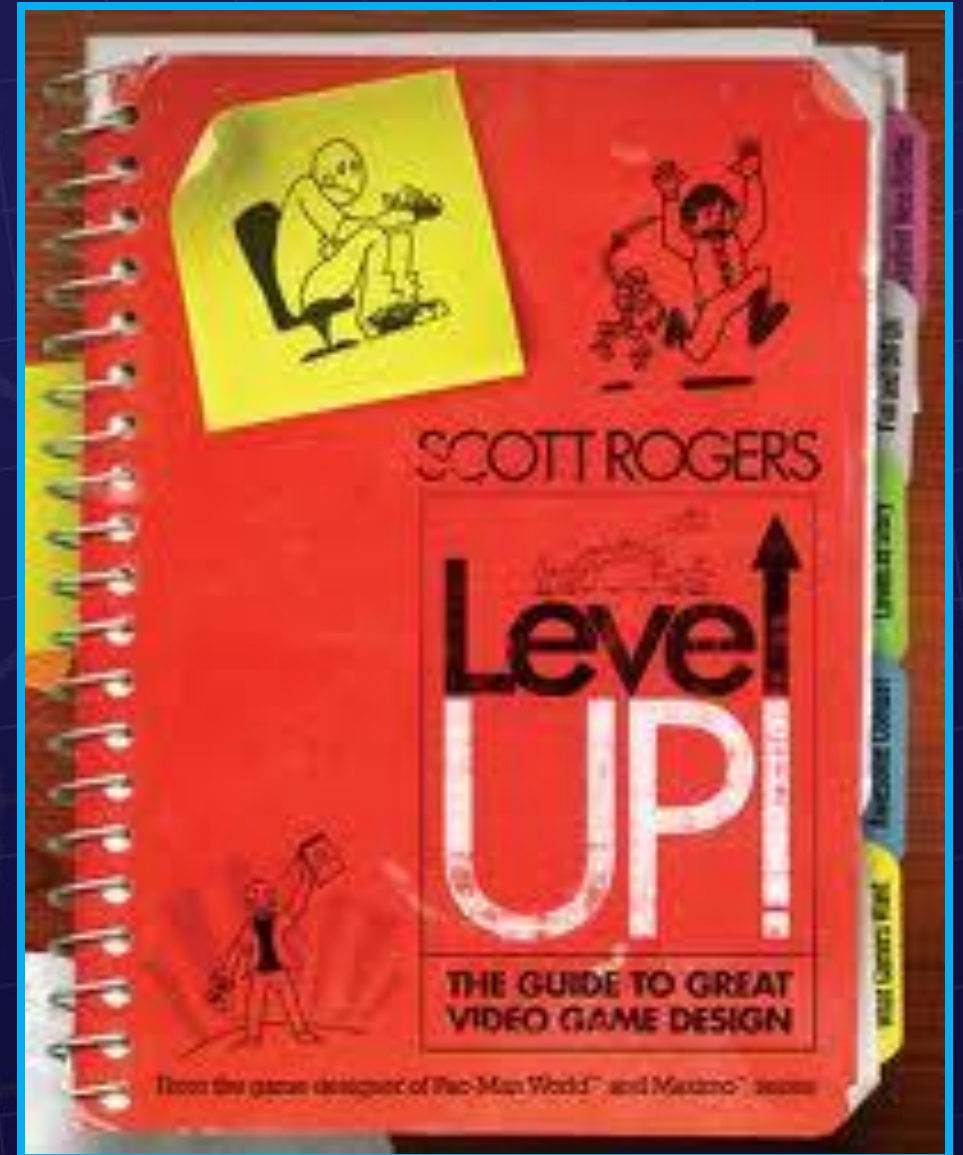
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A game design document outlines **everything that will be in the game** and is an important source of information that the entire team will refer to during the production of the project.



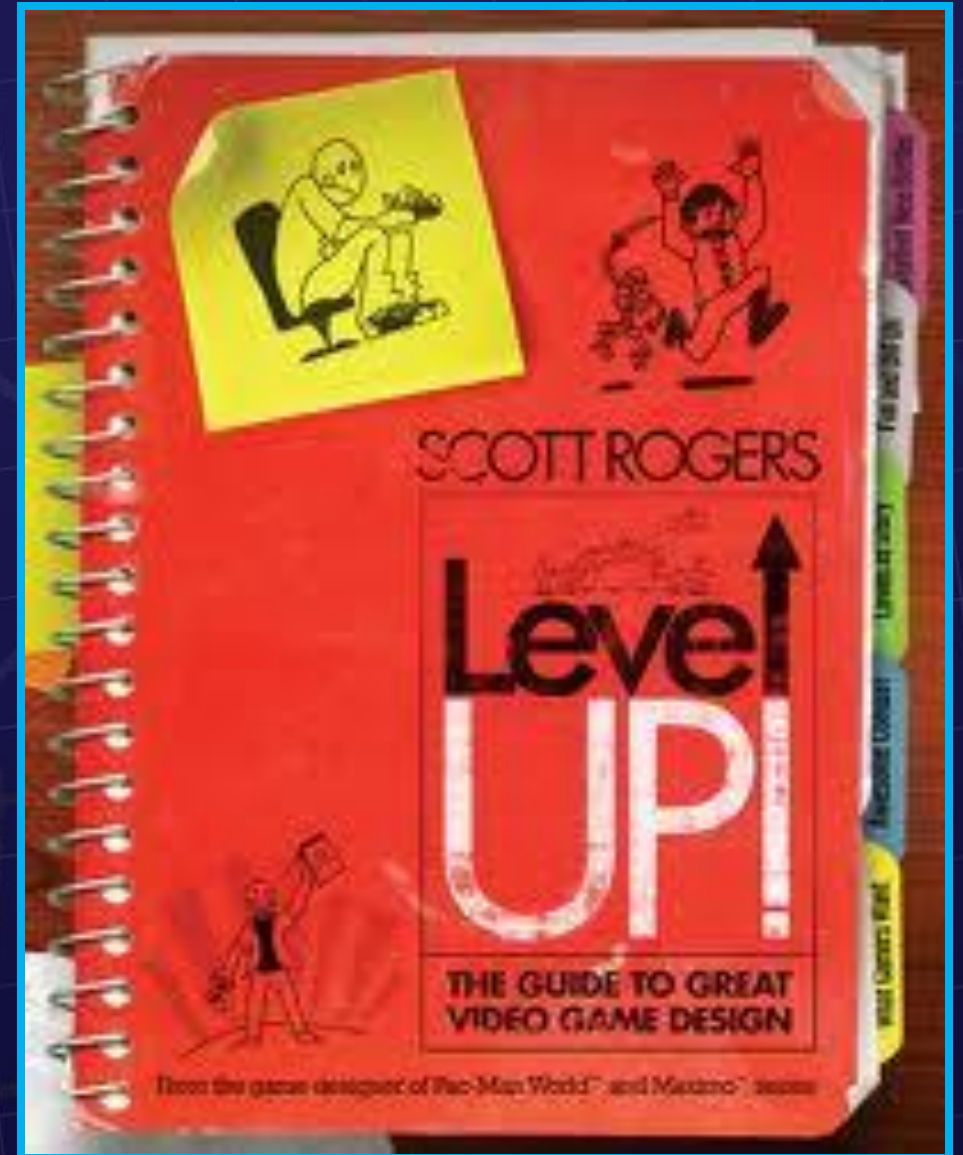
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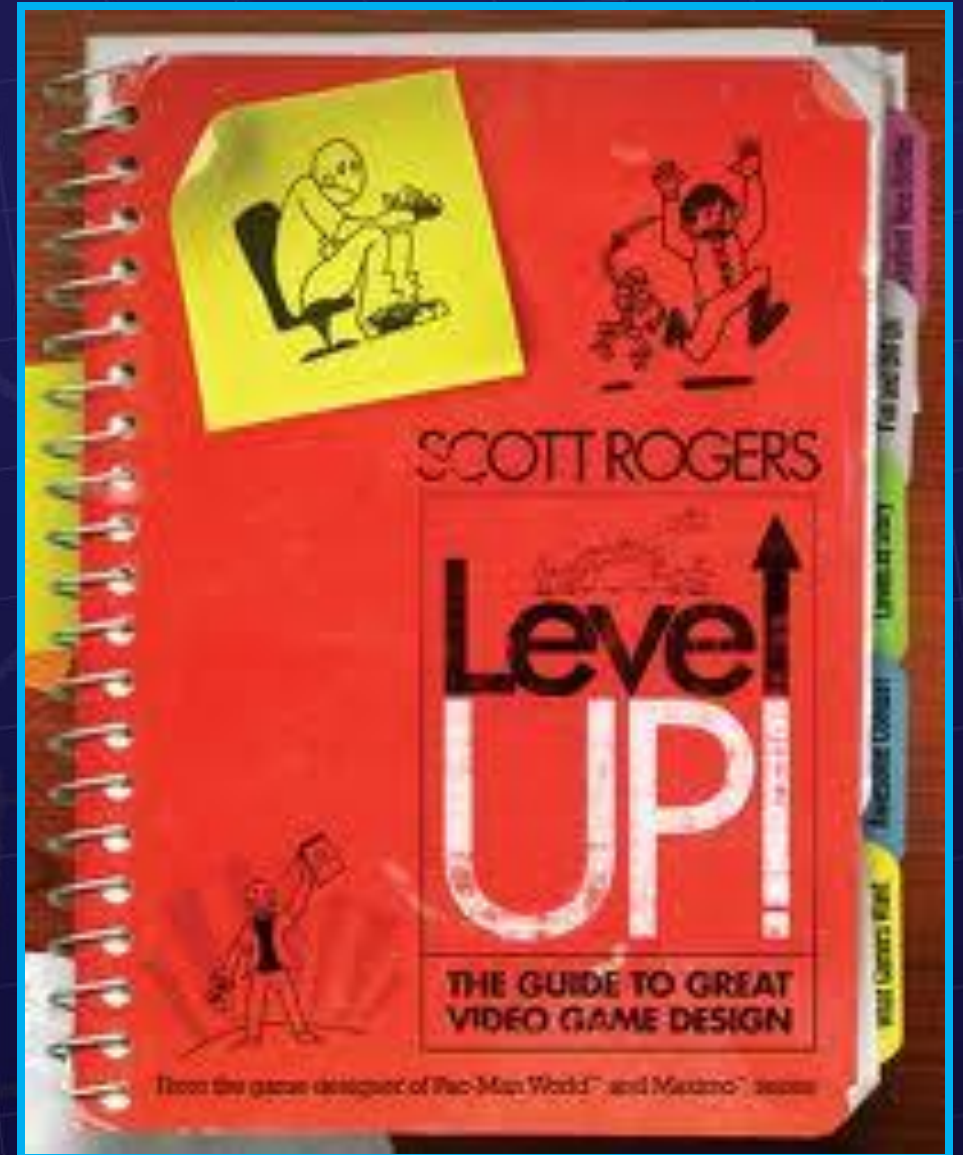
- The 'One-Sheet'





Rogers (2010) suggests that there are **different stages** that can guide a designer through preproduction and the creation of a **successful** game design document:

- The 'One-Sheet'
- The Ten Pager



GAME DESIGN DOCUMENTS

**SCOTT ROGERS:
THE 'ONE-SHEET'**



The One-Sheet is a **simple overview** of the game and will be read by team members and possibly a publisher.

It needs to be interesting, informative and **no longer than a single page.**



The following info must be included:

GAME DESIGN DOCUMENT (ONE-SHEET)



The following info must be included:

GAME DESIGN DOCUMENT (ONE-SHEET)

- **The Game Title**



The following info must be included:

GAME DESIGN DOCUMENT (ONE-SHEET)

- The Game Title
- Intended platforms



The following info must be included:

GAME DESIGN DOCUMENT (ONE-SHEET)

- The Game Title
- Intended platforms
- Target age of players



The following info must be included:

GAME DESIGN DOCUMENT (ONE-SHEET)

- The Game Title
- Intended platforms
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- Intended ESRN/PEGI rating



The following info must be included:

GAME DESIGN DOCUMENT (ONE-SHEET)

- The Game Title
- Intended platforms
- Target age of players
- Intended ESRN/PEGI rating
- Summary of game story - focusing on gameplay!



The following info must be included:

GAME DESIGN DOCUMENT (ONE-SHEET)

- The Game Title
- Intended platforms
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- Unique selling points (USP's)



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GAME DESIGN DOCUMENT (ONE-SHEET)

- The Game Title
- Intended platforms
- Target age of players
- Intended ESRN/PEGI rating
- Summary of game story - focusing on gameplay!
- Unique selling points (USP's)
- Competitive products



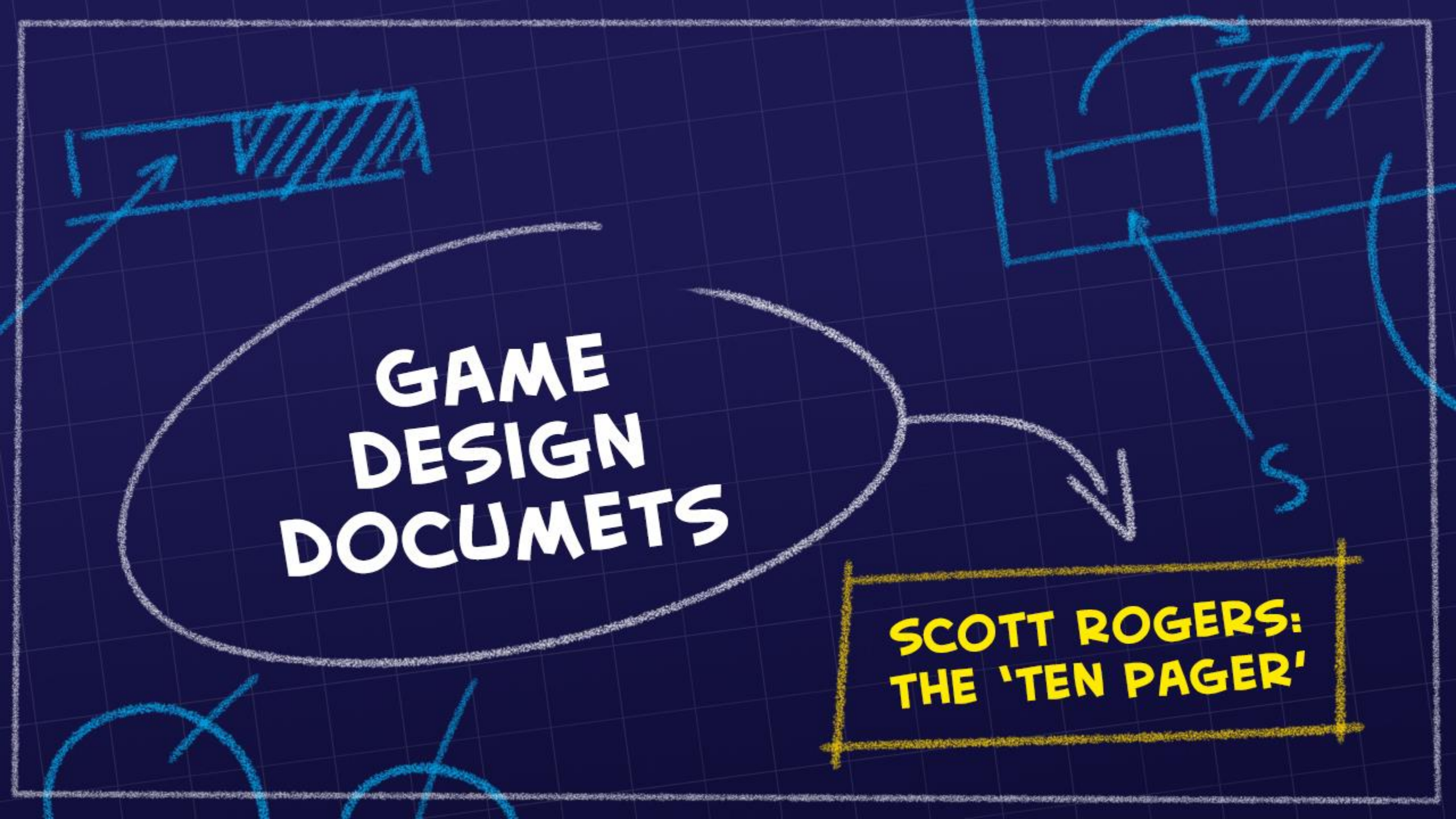
Once you have completed your One-Sheet you should have a general idea of the game experience you want to create.

More importantly, you now have a **record of essential details** that you can **share with your development team** to ensure that everyone clearly understands the basic idea.



From here, you can use your One-Sheet to develop the **next stage** of your document.

Scott Rogers refers to this as the '**Ten Pager**'.



GAME DESIGN DOCUMENTS

**SCOTT ROGERS:
THE 'TEN PAGER'**



Following the creation of your One-Sheet is the 'ten-pager'.

This is a broad document that lays out the essentials of your game and is for readers to quickly understand the basics of your product.

It must be kept interesting and readability is key – include relevant images and avoid using ornate fonts.



Rogers suggests creating a ten-pager in Powerpoint (or similar program) to help with formatting.

Using this format could also allow the document to be used as part of a **presentation or 'pitch'** of a game idea.



Page 1: Title Page

This page should feature the following:

YOUR GAME'S TITLE

- Intended Game Systems
- Target age of players
- Intended ESRB/PEGI/etc. rating
- Projected ship date



Page 2: Game Outline

- BRIEF Game story summary

Flesh out the game's story using the one-sheet's story outline as a starting point. This should be no more than a few paragraphs.

- Game flow

Briefly describe the flow of the game's action.

Example: *'Tomb Raider: Legend'*

"A third-person action adventure that finds archaeologist Lara Croft searching the jungles of Bolivia to the mountains of Tibet for the mysterious Ghalali key; an artifact which may be the key to finding Lara's own long-lost mother."



Page 3: Character

Highlight specifics about the player's character here such as age, sex and other 'dossier' style background material.

Concept art is essential - show what the character looks like - use reference images if needed!

What is the character's backstory? How did they end up here? What is their personality type? How does this information relate to the gameplay? Does the character have any signature moves, abilities, weapons or attacks?

Make sure you mention every style of play in the game.



Page 3: Character (continued)

Rogers also suggests providing a basic map of the character controls. Use images of the input devices and show where the controls are going to go.





Page 4: Gameplay

Start with gameplay and detail how the sequence of play is presented.

- Are there multiple story chapters or is the game divided up into levels or rounds?
- Are there any big set pieces? These will get a reader interested in the game.



● Page 4: Gameplay (continued)

Use Unique Selling Points (USPs) here and also include any minigames featured in the game, with descriptions and illustrations.

Also mention platform-specific features. Example: If the game makes the use of memory cards, motion controllers, cameras, etc.



● Page 5: Game World

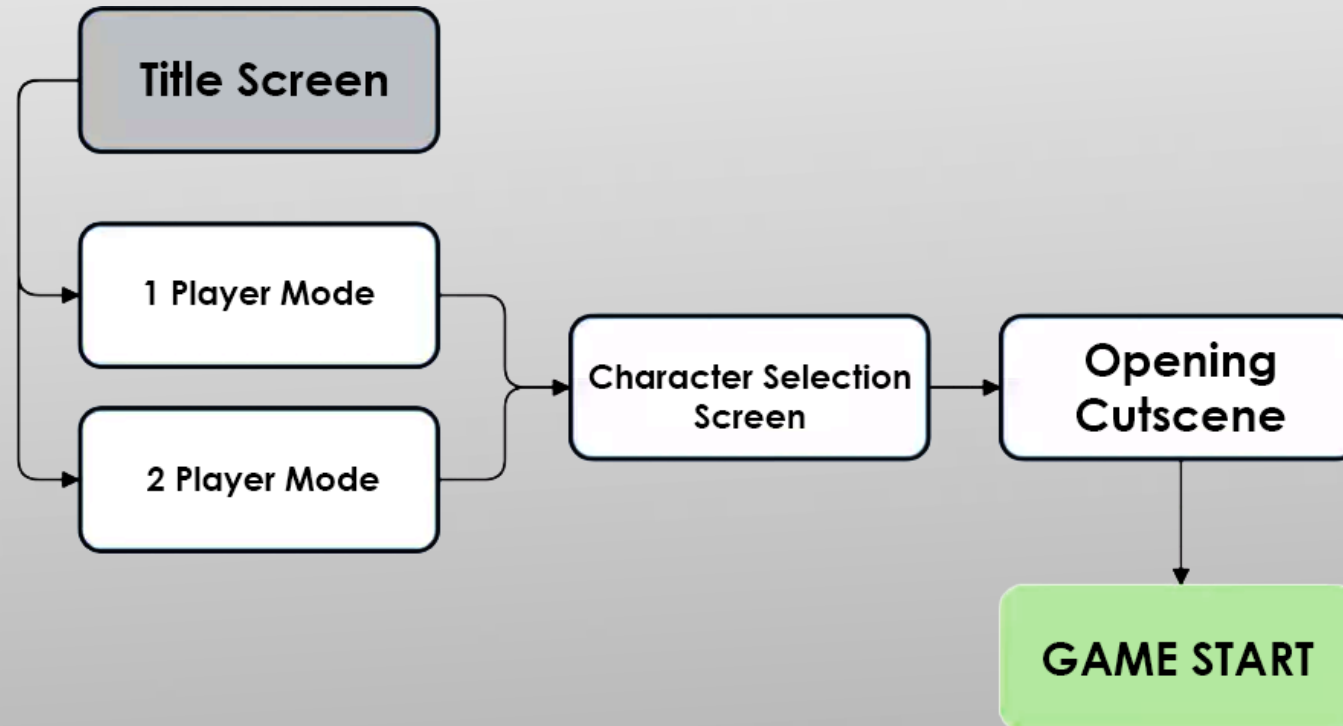
Present images and descriptions of the game world here, with short descriptions that outline what the player will find in the environments they are placed in.

- How do these locations fit into the story?
- What mood is being invoked in each world?
- What music will be used?
- How are all the locations connected within the game world?



Page 5: Game World (continued)

Rogers suggests that a simple map or flow chart diagram should be provided to indicate how the player will navigate the game world.





Page 6: Game Experience

What is the overall theme of the game - e.g. humourous, horrific, thrilling, hardcore, sexy?

- How is the feeling going to be presented to the player?
- Are there any special modes or interfaces for gameplay?
- What does the player first see when they start the game?
- What emotions are meant to be invoked by the game?
- How are music and sound used?
- How does the player navigate the shell of the game? (Provide a flow chart diagram here)



Page 7: Gameplay Mechanics

List mechanics, hazards, power-ups and collectibles here.

Mechanic: Something the player interacts with to create or aid gameplay e.g. moving platforms, opening doors, slippery ice.

Hazard: A mechanic that can harm or kill a player but doesn't possess intelligence e.g. spike pits, swinging blades, jets of fire. Describe SOME – not every one!

Power-up: e.g. Ammo, extra lives, invulnerability, etc. Provide examples of power-ups and what they do.



Page 7: Gameplay Mechanics (continued)

Collectibles: items that are collected by players that don't have immediate effects on gameplay e.g. coins, puzzle pieces, trophies etc.

- What does the player collect and what are the benefits of collecting them?
- Can they be used to buy items/new abilities/unlock material in the game?
- Will they earn the player achievements?



Page 7: Gameplay Mechanics (continued)

If the game has an economy system, briefly discuss this - as well as how players collect money and buy things in-game.

Finally, if an economy is required, describe the shopping environment.



Page 8: Enemies

If hazards use artificial intelligence (AI) then it qualifies as an enemy character.

- What enemies are found in the game world?
- What makes them unique?
- How does the player overcome them?

BOSS CHARACTERS are larger enemies often found at the end of levels/missions/chapters.

- Who are the boss characters?
- What environments to they appear in?
- How does the player defeat them?
- What does the player earn for defeating them?



Page 9: Cutscenes

If the game has cutscenes or movies, they should be documented here. Describe the presentation and the method that will be used to create them, e.g. 2D pre-rendered cutscene, live action, etc.

Additionally, describe when the player will be seeing these, such as:

- During the game
- At the start of each mission/completed level
- Attract modes and demo cutscenes



Page 10: Bonus Materials

Any bonus materials or unlockables that encourage the player to replay the game are mentioned here.

Give examples of things players will be able to unlock. What incentives are there for players to replay the game?

Multiplayer modes, downloadable content, episodic content, etc. would feature on this page.



GAME DESIGN DOCUMENTS

CONSIDERATIONS
FOR GDD'S



Scott Rogers states that it is important to **bear the following in mind** that when GDD's are written:

EVERYTHING IS LIQUID

(Rogers, 2010)



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This means that game designs **change, flow and evolve**.

Eventually many things featured in the document will become **obsolete**.

(Rogers, 2010)



Writing can also feel counter-productive when development has to focus on finishing a game, but a **GDD is an essential starting point.**

The most important part of a game designer's job is **communication.**

(Rogers, 2010)



GAME DESIGN DOCUMENTS

**PROBLEMS
WITH GDD'S**



There is **no official form of what a GDD looks like** – each designer (and team) has to find what works best for them.

It takes a **lot of time and effort** to write documents for game production and often **nobody on a development team will want to read them.**

These documents can potentially be **long, extensive and intimidating.**



Scott Rogers **provides illustrations in his documents** to help communicate ideas quickly to avoid intimidating game documentation.



MAXIMO III: Merged Grim Form

Maximo 3 starts with Maximo and his band in bad shape. In their quest for Sophia, the heroes have encountered the Cult of Chut; death-worshippers who find "a man who walks with Death" an affront to their beliefs. As a result, Baron has been killed, Tinker maimed (she now sports Zin parts) and Maximo and Grim have been merged into one, thanks to a curse. Maximo and Tinker have been hunting down cultist sects when they arrive in Mashhad, seeking revenge and a cure to Maximo's condition.

Maximo is covered in tattoos, which are actually the external manifestation of the cultist's curse that has trapped Grim within him. With the press of a button, Maximo transforms into Grim, allowing him several abilities.

As a result of the curse on Maximo, turning into Grim drains Maximo's health. Stay as Grim for too long and Maximo will lose a life. Only by collecting the souls of the evil cultists can Maximo sustain himself in Grim form.



At some point in the game, Maximo will use Grim's form as a disguise to infiltrate the cult's tower during the Chut Holy Day. Gameplay will have the player switching between the two forms.



As a phantom, Grim can slide up walls, flow like a shadow along walls give an little extra distance to a jump and glide down from long drops.



In addition, the player can perform several attacks with his scythe. Grim attacks do not always kill, rather they are used to "prep" an enemy for Maximo's attacks; such as breaking a cultist's protection spell or "mortalizing" ghostly foes.

Grim only enemies -

The High Priest's plot is to lure Maximo to their temple and transfer Grim into their own vessel: Sophia.



While in Grim form, the player cannot talk to innocents (they are too scared). However, Grim's attack will free innocents of the cult's influence. Turning them from enemies to normal innocents that Maximo must rescue from other enemies.



The **more accessible** the document, the **easier** it will be to use. Nobody will attempt to read huge paragraphs of words.



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For example:

Scott Rogers states that it is important to bear the following in mind that when GDD's are written: **EVERYTHING IS LIQUID**. This means that game designs change, flow and evolve. Eventually many things featured in the document will become obsolete. Writing can also feel counter-productive when development has to focus on finishing a game, but a GDD is an essential starting point. The most important part of a game designer's job is communication. There is no official form of what a GDD looks like – each designer has to find what works best for them. It takes a lot of time and effort to write documents for game production and often nobody on a development team will want to read them. These documents can potentially be long, extensive and intimidating. Scott Rogers provides illustrations in his documents to help communicate ideas quickly to avoid intimidating game documentation. The more accessible the document, the easier it will be to use. Nobody will attempt to read huge paragraphs of words. A game design document should be just long enough to describe the action in a game. Using the Scott Rogers method, work your way up from One-Sheet, to Ten Pager, to a full Game Design Document. No one likes to read long design documents. Find the best way to communicate ideas to the development team effectively – use visuals. Everything is **LIQUID** – the game design will change over the course of production. You may need to rewrite sections of your GDD!



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This is the same information that is contained in today's slides. It is important not just **what** information you give but **how** you present it!



GAME DESIGN DOCUMENTS

SUMMARY



Summary of GDD production





Summary of GDD production

- A game design document should be **just long enough** to describe the action in a game.



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GAME DESIGN DOCUMENTS

**THE ONE-SHEET
EXERCISE**



The One-Sheet Exercise

Using each of the three TV intro sequences and the One-Sheet template provided:

Get into groups and brainstorm ideas for 10 minutes, starting with a broad range of rough ideas and narrowing them down into a single game idea that can be **quickly** represented with a One-Sheet document.

Each One-Sheet will be discussed with the rest of the tutorial group.



GDD One-Sheet Exercise: **Test Run**





GDD One-Sheet Exercise: **Intro 1**





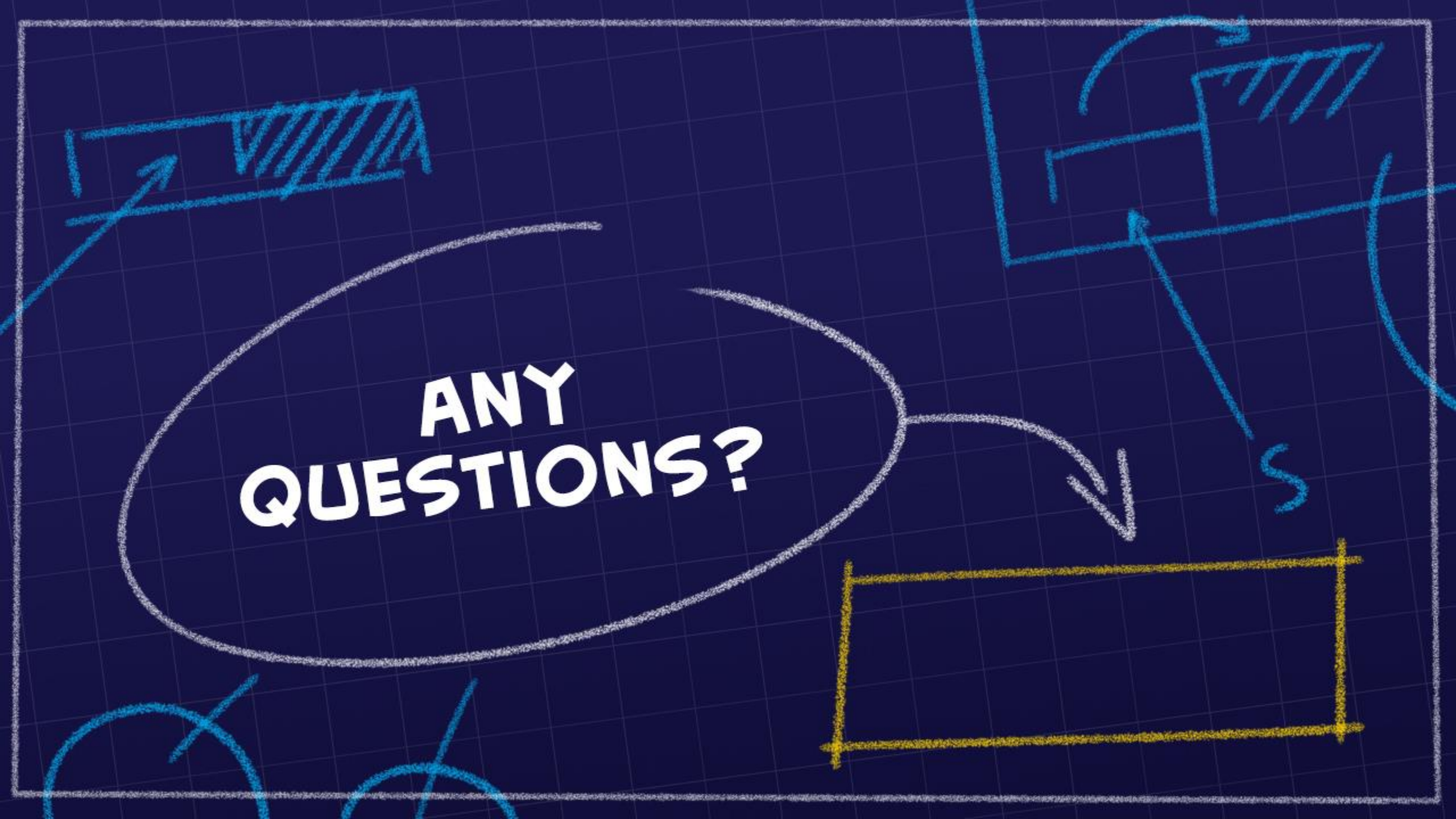
GDD One-Sheet Exercise: Intro 2





GDD One-Sheet Exercise: **Intro 3**



A hand-drawn diagram on a chalkboard background. The central element is a large, hand-drawn oval containing the text "ANY QUESTIONS?". To the top left of the oval is a rectangle with diagonal hatching and an arrow pointing towards it from the left. To the top right is a more complex diagram with a rectangle, a curved arrow, and some scribbles. Below the oval, a curved arrow points from the right side of the oval down to a large, empty rectangle. The entire scene is set against a dark blue background with a light blue grid pattern.

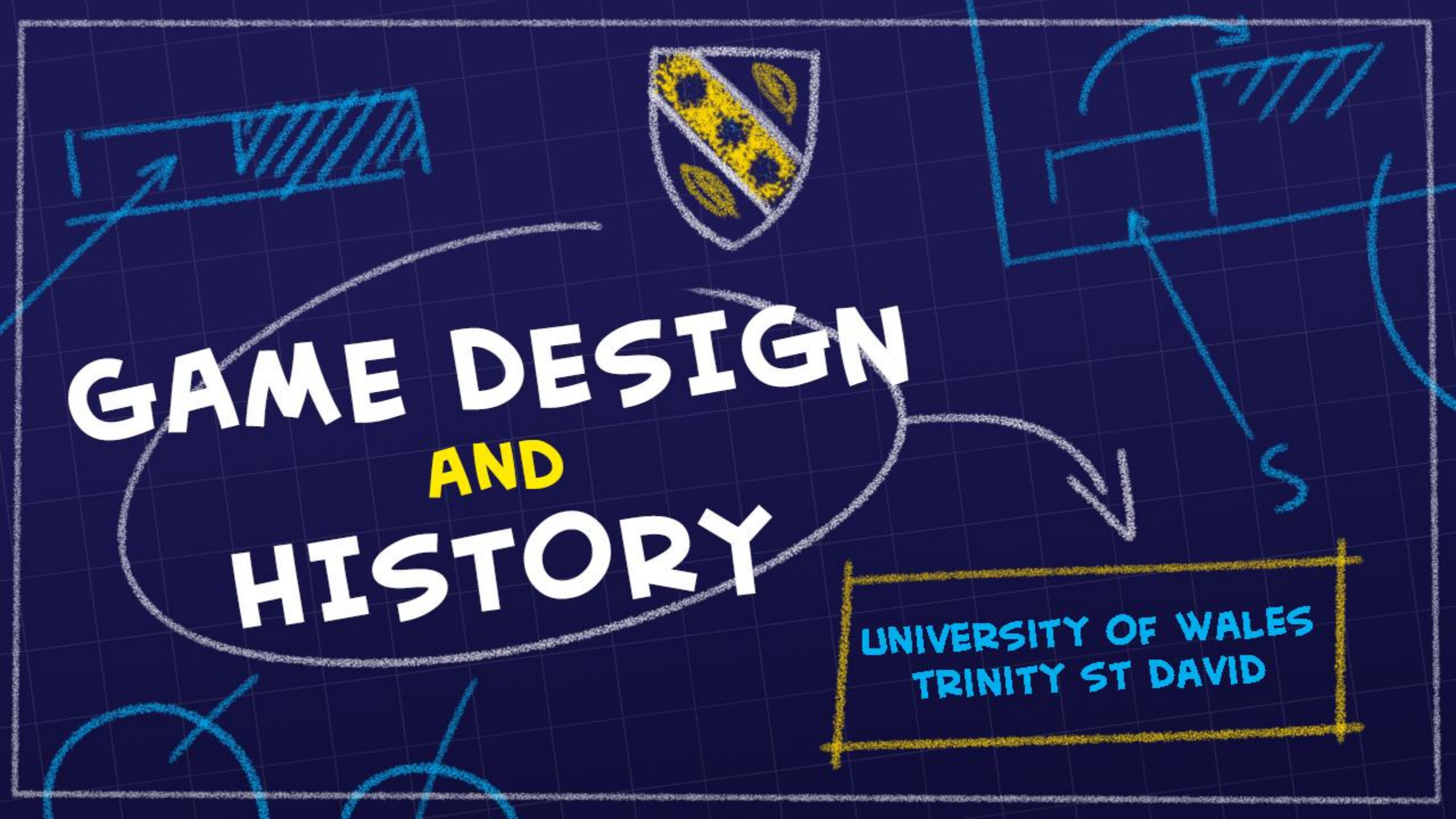
**ANY
QUESTIONS?**



Books

Rogers, S. (2010) *Level Up!*. John Wiley & Sons Ltd., USA

Adams, E. & Rollings, A. (2007). *Fundamentals of Game Design*. New Riders Publishing, USA.



GAME DESIGN AND HISTORY

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