may find inspiration on how to implement video game UI influences into their own animated films.

2. THEORETICAL FRAMEWORK

2.1. GAME USER INTERFACE

A game's User Interface (UI) appears on a game screen to present essential information that guides players, allowing them to navigate the game, progress, and achieve objectives (Kang & Choi, 2022). Because game UIs are designed to communicate information quickly and efficiently during gameplay, they often rely on repeated visualizations and familiar symbols that can be immediately recognized by players. Through repeated exposure across different games, audiences gradually form strong associations between certain UI visualizations and the information they communicate. The types of information that can be communicated and the ways this information is visualized varies greatly. In a paper by Masár & Kriglstein (2024) which proposes a taxonomy for in-game UI visualizations, said visualizations are separated into 4 categories: Heads-up display (HUD), loading screen, cutscenes, and game menu.

Table 1. Components of the HUD

Component	Description	Way of expression
Health Bar	The health bar indicates to the player how close their avatar is to death or if they need to restart for some other reason.	Bar, Ring, Heart,
Inventory	Inventory allows players to view and manipulate objects collected during the game.	Keys, Weapons, Potions, Magic items, Puzzle items
Map	Maps allow players to check their location on a game level and identify target points and enemies.	Radar, Mini-map,
Context – sensitive prompt	An icon or text appears when the player approaches objects and characters that can interact with it.	Text, Alphabet Initial, Controller button icon
Weapon and Ammunition	Players can check the weapons and ammunition needed for battle.	Weapons, ammo, Text

Fig. 2.1. - Table describing the components of the HUD and how they can be expressed (Source: Seo, G., 2023)

Another paper by Seo (2023) then further divides the HUD category into 5 separate components:

1. *Health Bar* - Indicates how close a player is to dying.
2. *Inventory* - Allows players to see and manage the items they have collected throughout the game.
3. *Map* - Allows players to see their position within a game level and locate objectives and enemies.
4. *Context-sensitive prompt* - An icon or message that appears when the player gets close to objects or characters that they can interact with.
5. *Weapon and Ammunition* - Players can view the weapons and amount of ammunition they have for combat.

Seo then gives examples of how each component could be expressed. The examples listed were the Health Bar being expressed through a bar, hearts, or rings, the Inventory being expressed through keys, weapons, potions, magic items, or puzzle items, the Map being expressed through a radar or a minimap, Context-sensitive prompts being expressed through text, alphabet initial, or a controller button icon, and Weapons and Ammunition being expressed through weapons, ammo, or text. These components together make up the elements of a game UI, however not all games may have all 5 elements.

2.1.1. GAME GENRES

There are many different game genres, and each genre has different ways of conveying information in its UI. A few different game genres will be discussed in this paper, as well as the UI conventions found in these genres. They are RPGs (Role Playing Games), rhythm games, fighting games, and dating simulators.

The first, and most relevant genre to this paper are RPGs. Role-playing games are a genre of video games that have the player assume the role of a character in a fictional story in order to reach a final objective, thus immersing the player in the story being told (Nam et al., 2022). This is a very wide genre of games and is often further divided into sub-genres. It encompasses games such as Undertale, Baldur's Gate III, Disco Elysium, and the Final Fantasy series.

Meanwhile, rhythm games are defined as games that challenge a player's sense of rhythm and reaction skills by requiring them to issue commands at precise timings during a music session (Takata et al., 2021). Some examples of games from this genre are Rhythm Heaven, Osu!, and Taiko no Tatsujin. Fighting games are a genre focusing on 1-on-1 combat, with the goal of depleting the opponent's health bar through rounds using a mix of punches, kicks, blocks, and special moves. It is also characterized by different playable characters having different toolsets (Harper, 2023). Some examples from this genre are Street Fighter and Tekken. Dating simulators are a genre where players interact with characters through

multiple dialogue options with the primary objective to develop and cultivate romantic relationships (Blakey and Tomkinson, 2024). Examples include Dream Daddy, Doki Doki Literature Club, and Monster Prom.

2.2. STORYBOARD

Storyboards and game UIs share a common purpose within their respective mediums, which is to control information that is delivered to the audience. The Storyboard translates a written script into a visual plan that is then animated during the production stage of animated filmmaking. According to Natawiria and Adiwijaya (2025), the storyboard functions as a tool to determine the visual aspects and composition needed for a scene and would ideally be understood by both the production team and the audience. Through storyboarding, filmmakers are able to determine how information, emotion, and action will be visually communicated before animation production begins.

2.2.1 SHOT DESIGN

One way that a storyboard controls the flow of information is through different shot sizes, which is defined by Lannom (2026) as "how much of the setting or subject is displayed within a given frame of a video, photo, or animation." Different shot sizes therefore reveal more or less information to the audience at the discretion of the storyboard artist. Larger shot sizes reveal more information, while smaller shot sizes reveal less information.

There are several standard shot sizes that are used in filmmaking. They include:

1. Close-up (CU)
2. Medium Close-up (MCU)
3. Medium Shot (MS)
4. Full Shot (FS)
5. Wide Shot (WS)

A close-up shot fills the frame with a specific part of the subject, focusing on details that might be missed from a wider perspective. If the subject is a person, a close-up shot usually shows the face and puts emphasis on the subject's emotions and reactions. A medium close-up shot frames the subject from the chest up, striking a balance between showing the subject's emotion and their body language. A medium shot frames the subject from the waist up. It shows both the subject as well as the environment behind them. A full shot has the subject filling the frame from head to toe. This allows space to be taken up by the environment and allows for multiple characters to be in the same shot. Finally, a wide shot maintains a large amount of space above and below the subject and is often used to convey the relationship between the subject and their environment (Lannom, 2026).

Because different shot sizes reveal different amounts of visual information, shot design becomes important when incorporating game UI visualizations into film storyboards. Certain UI visualizations may require wider shots to display the relationship between characters, environments, and UI elements simultaneously. Meanwhile other game UI visualizations may benefit from closer shots that pull the audience's attention toward specific objects or interactions.

2.3 JAKOB'S LAW

Jakob's Law is a law borrowed from user experience (UX) design. It states that users spend most of their time on other websites, therefore they expect your website to function in ways that are consistent with the ones they are already familiar with (Yablonski, 2020). This law emphasizes that familiarity and existing mental models can be leveraged in order to make an audience's experience as smooth as possible. Audiences will transfer expectations built from prior experiences onto their current experience.

In the context of this paper, Jakob's Law justifies the connection being made between game UI and its use within a storyboard. Visualizations used in game UIs are repetitive and will appear in multiple games, forming associations in a player's

mind as to the meaning behind each visualization. For example, a player may see their health bar and understand that it reflects the physical condition of the player character, with a full health bar indicating a stronger condition, and a depleted health bar indicating a weakened state.

Therefore, using visualizations present in game UIs within a storyboard, taps into this pre-existing mental model. It allows storyboard artists to take advantage of the audience's pre-conceived associations to convey information about its story to the film's audience. Therefore, more information can be conveyed with less visuals.

3. CREATIVE METHODS

3.1. DATA COLLECTION METHODS AND TECHNIQUES

The method of data collection for this paper will be a qualitative analysis of previous works that incorporate game UI visualizations. Data will be collected through an observation of 2-3 works for each component of game UI visualization the author chooses to analyze. References will be selected based on two criteria:

1. The reference incorporates game UI visualizations into a non-interactive film or animated format.
2. The UI elements play a role in communicating narrative information

For each reference example, the following three elements will be observed with the goal of understanding the different possibilities for how these game UI visualizations can be implemented as well as the strengths of each interpretation.:

1. How game UI visualizations are expressed
2. What information is being communicated through the use of game UI
3. The shot sizes used

With these observations, the author will then create an original storyboard that also incorporates game UI visualizations.