

THE POINT OF CLICKING

Roles of Cutscenes in Adventure Games

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The Point of Clicking
Roles of Cutscenes in Adventure Games

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Tutkimuksessa analysoidaan välianimaatioiden käyttöä kahdessatoista eri graafisessa seikkailupelissä. Aineisto on valittu myyntimäärien, kriitikkoarvioiden ja listasijoitusten perusteella. Jokaisesta aineiston pelistä analysoidaan yksi pidempi välianimaatio. Analyysin pohjana on etukäteen laadittu jaottelu seikkailupelianimaatioiden yleisistä käyttötarkoituksista.

Opinnäytetyöhön kuuluu lisäksi tapaustutkimus, jossa tutkimuksen löydöksiä sovelletaan uuden seikkailupelin animaatiosuunnitteluun ja toteuttamiseen.

ABSTRACT

Tampereen ammattikorkeakoulu
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Roles of Cutscenes in Adventure Games

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The thesis analyzes the use of cutscenes in twelve graphical adventure games. The source material has been selected based on sales, critic reviews and list rankings. One cutscene is analyzed from every game. The analysis is based on a set of general functions of adventure game cutscenes prepared beforehand.

Thesis also includes a case study that applies the findings to the animation design and implementation process of a new adventure game.

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TERMINOLOGY

adventure game	(Key term: see section 2.1.2 for definition)
cutscene	(Key term: see section 2.1.3 for definition)
game	(Key term: see section 2.1.1 for definition)
interactive movie	A game genre popular in the 1990s that used a lot of pre-recorded video and generally included less interactivity than other games and often suffered from lower production values than actual movies or tv-shows.
Quick Time Event / QTE	An interactive segment embedded in a cutscene, usually requiring the player to press the right button or buttons as quickly as possible to gain benefits and/or avoid penalties.
Full motion video / FMV	A technique that favours pre-recorded videos with live actors over real-time animation in games.

1 INTRODUCTION

My goal in this thesis is to analyse what kinds of functions cutscenes fulfil in adventure games. My source material consists of selected examples of graphical adventure games that utilise cutscenes and are considered notable within the genre (more on the selection criteria in section 2.2). The source material consists of a total of 12 game titles/series, seven of which are classics of the genre that were published between 1990 and 1999 while five represent modern adventure games and were published between 2009 and 2012. I will be studying digital games available for PC and non-portable game consoles. Games published exclusively for mobile/portable platforms will not be covered.

For each game, I will first analyse what different types of cutscenes are found in the games and then proceed to analyse some example cutscenes in more detail. My research question is how cutscenes are used in the selected adventure games, what functions do the cutscenes serve in the context of the games' narratives, how the game experience would change if each cutscene was removed with no further changes and could the cutscene be replaced with something else.

After the analysis, I will proceed to put my findings to use in my practical work / case study by drafting a chart of scenes that could benefit from cutscenes in the upcoming adventure game *Girl Who Was Rain*.

2 THEORY AND SOURCE MATERIAL

2.1. Definitions and Theory

In this section I will present the central terminology definitions and theoretical / literary sources used in my analysis section. I will begin by defining core terms such as “game”, “adventure game” and “cutscene” and presenting my theoretical sources.

2.1.1 Definition of game

When studying a wide and complex field such as games, it is helpful to select a working definition for the term “game” that will be used to limit the scope and research material. Coming up with an accurate definition is definitely not an easy task, but luckily there are already several useful definitions available.

Salen & Zimmerman (2004, p.71-83) have taken several existing definitions, assessed their strengths and weaknesses and ended up with a definition of their own: “A game is a system in which players engage in an artificial conflict, defined by rules, that results in a quantifiable outcome.” While this definition leaves some borderline cases such as traditional non-digital role-playing games, in which the presence of a “quantifiable outcome” is arguable, the definition seems more than adequate in the context of most digital games.

For the purposes of this thesis, the working definition will be further narrowed to cover only digital games published on PC, console and mobile platforms.

2.1.2 Definition of adventure game

Now that we have defined game, we will need to go into further detail and also give a definition for adventure game.

Adams & Rollings (2012a) offer the following definition: “An interactive story in which the player takes the role of the protagonist. Puzzle solving and conceptual reasoning challenges form the majority of the gameplay; physical coordination challenges are few or non-existent.”

This would seem a valid starting point – it limits out simple and casual puzzle games with no storyline as well as shooters and action adventures that may contain some puzzles and dialogue, but also feature extensive combat mechanics. There are only two adjustments that I would make to the definition. First, I would add to this core definition is exploration, which is also often a central mechanic of adventure games, since the puzzles are usually set in a complex game world instead of simple and detached context of many casual puzzle games. Second, while there are also non-digital games that fulfil the definition, the term is more often used of digital games. The modified and re-written definition could read: “Adventure games are a genre of digital games in which the player takes the role of the protagonist in order to experience an interactive story. Adventure games generally focus on problem solving, exploration and storytelling rather than reflexes.”

Finally, while the genre evolved from parser or menu based text adventures with no graphics, this thesis will only cover graphical adventure games.

2.1.3 Definition of cutscene

Now that we have defined game, it is crucial that we also have a working definition for cutscene. Cutscenes take many forms – they can be short or long, 2D or 3D, animated or filmed – and their purpose and function varies as well. We need a definition that covers all possible cutscenes, but rules out other game elements such as loading screens and character animation. We shall begin with some features that should apply to all cutscenes, then work from there to reach a complete definition.

First, a cutscene is a sequence within a digital game. This is the basic framework of this definition. In itself it is very vague and doesn't really tell cutscenes apart from any other elements of game and gameplay, so we need to expand on it.

Second, a cutscene has a narrative purpose. This rule excludes various in-game animations and events such as loading screens – they may be sequences within a game, but they only relay information and don't tell a story in themselves. It is not enough to separate cutscenes from gameplay, though, so we need another rule.

Third, a cutscene allows little to no interaction from the player. This is the main element that separates a cutscene from the rest of the game even in those situations where the cutscene is played out in the game engine and in the game's visual style, i.e. it is not a separate pre-recorded video. Note that if we ruled out all interaction, then you could argue game animations that the player can opt to skip are not proper cutscenes.

Furthermore, in some types of in-engine (i.e. real-time graphics) cutscenes the player may even retain control of the character to some extent (e.g. in Half-life series), the actions taken during a cutscene have no real impact on the outcome of the situation.

This rule still leaves some borderline cases, especially in terms of games such as Heavy Rain and Walking Dead that utilise and embed a lot of cinematic Quick Time Events (see terminology) in their narrative and gameplay, but rather than modifying the definition further at this point, I will dedicate special attention to these exceptions in the analysis section.

With these three rules, we end up with the following definition: A cutscene is a nearly or completely non-interactive narrative sequence within a digital game. This definition should now serve our purposes in excluding elements that are not cutscenes without limiting what the cutscene should look or sound like.

2.1.4 Main theoretical and literary sources

My primary source is Salen and Zimmerman's Rules of Play – Game Design Fundamentals, an overall study about games, spanning the essence and structure of games and gameplay experiences, narratives and meanings as well as the culture surrounding gaming. I will use these theories both as a basis for my definition of game and as a starting point for the functional framework of cutscenes I will draft in section 3.1.3.

Other sources used are listed in the bibliography.

2.2.Selection criteria

My source material consists of a selection of digital adventure games that both fulfil the definition of adventure game given in section 2.1.2 and are considered notable within the genre. Only games available for PC and non-portable consoles are qualified, mobile/portable platforms will not be covered.

The relevance and notability of games will be defined on basis of sales and critical reception. Obviously accurate sales data from digital distributors (such as Steam, Desura and GOG.com) would be an excellent resource for defining modern relevance, but unfortunately such data is rarely made public. Therefore, the assessment is made based on what games appear on the top sales/ratings charts according to several sources (GOG.com, Metacritic and top lists of gaming media and hobbyist sites).

Adventure games as a genre had its original peak in 1990s. 29 graphical adventure game titles were published in the peak year 1995 alone. The lowest point was reached in 2000 – in that year, the data shows only one new original game, two remakes and two cancelled/unreleased games. The two powerhouses of graphic adventures – Sierra On-Line and Lucasarts – published their last adventure games in 1999 and 2000 respectively, and both titles failed to reach the expected amount of sales (GamesTM, 2010), which in part contributed to the significant drop. At this point Lucasarts was still developing two sequels – Full Throttle: Hell on Wheels and Sam & Max: Freelance Police – but these too were cancelled in 2003 and 2004, respectively, and following the complaints of fans, Lucasarts announced that it no longer considered adventure games a financially profitable genre (GamesTM, 2010).

The following years saw a slight increase, but even so, the amount of adventures published in 1995 roughly equals the total amount of publications from 2000 to 2004. (Table 1) Furthermore, only few of these later titles attained classic status or commercial success.

Graphic adventure games published in 1983 - 2011

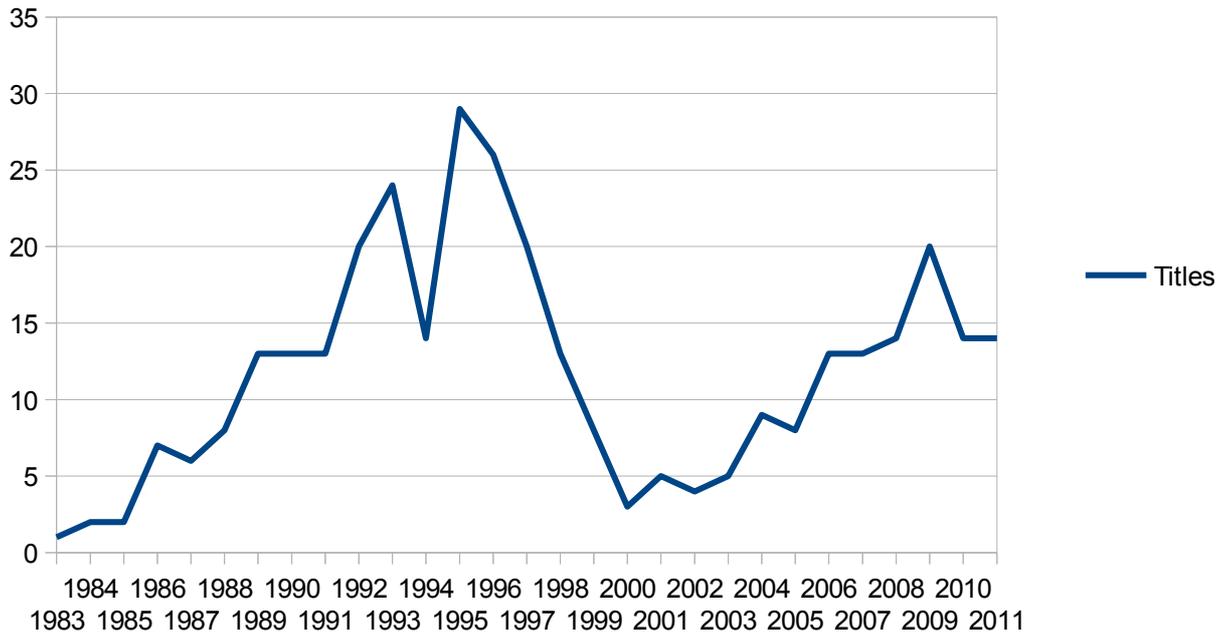


Table 1: Graphic adventure games published in 1983-2011

As the table shows, years from 2005 onward have again seen a wider popularity of the genre. Reasons for this development might include the indie-friendliness of adventure games when compared to the massive budgets required of the highest visibility AAA titles as well as the advent of digital distribution. This introduces us to a new problem: how to make sure that the source material also includes newer notable games.

The vast amount of games published in 1990s, the cult status of many of these titles, as well as the large and well-known companies that produced many of them are all aspects that make it difficult to gather comparable data. Many all-time top charts are largely topped by old classics, whereas these old games are often not properly featured in newer catalogues such as Metacritic. To give more recent titles a fair share of attention, I have divided the material in two chronological selection categories – one for games published between 1980 and 2000, the other for games published post-2000 – and selected roughly half of the source material from each of these two categories.

2.3.Source material in chronological order

2.3.1 Monkey Island 1-2 (Lucasarts, 1990-1991)

The two original Monkey Island games (The Secret of Monkey Island and Monkey Island 2: LeChuck's Revenge) are among the best known adventure games. The classic point & click games follow the journey of Guybrush Threepwood from fictional Caribbean island to another in his quest to become a pirate and find treasure and adventure as well as to defeat his mortal enemy, undead pirate LeChuck.

The games, in chronological order, rate fourth and fifth out of all adventure games Gog.com wish list (sixth and eighth out of all games)(GOG.com, 2013a). The graphically revised versions of the games rate 14th and 8th place out of adventure games for all non-mobile platforms on Metacritic (seventh and sixth out of adventure games on PC alone). On the Adventuregamers.com list, the games rate 14th and 8th (Adventuregamers.com, 2011).

Apart from the re-makes, the Monkey Island series has received recent visibility through Tales of Monkey Island, an episodic series of sequels by Telltale Games that came out in 2009.

2.3.2 Gabriel Knight: The Sins of the Fathers (1993) and The Beast Within: A Gabriel Knight Mystery (1995)

Mechanics-wise a classic point & click adventure, the Gabriel Knight -series is much more serious than many other adventure games of the time. On the other hand, the game is more forgiving than many other Sierra titles and includes less sudden deaths of the player character. The series follows the titular horror writer, who begins to research voodoo and other supernatural phenomena for his books and soon finds out that his own family tree has ties to an ancient family of occult investigators. The games revolve around murder investigations that always involve the supernatural.

The first two Gabriel Knight titles rate second and sixth on GOG.com best-seller list and 9th and 20th in terms of user rating. A Metacritic score is not available for either

game, but the games hold 16th and third places on the Adventuregamers.com list (Adventuregamers.com, 2011). The third game, Gabriel Knight 3: Blood of the Sacred, Blood of the Damned is also fairly well known, but did not rate frequently or high enough on the rankings used for selection to make it into the source material.

2.3.3 Myst (Cyan, 1993)

Myst is viewed from first person perspective, but each individual screen/location is pre-rendered so moving or turning the camera freely is not possible, although rotating in 90 degree increments is often allowed. Moving from location to location is possible by clicking exits or locations on the screen, which results in a cross fade to the next location. Myst has very few non-player characters and most of the gameplay consists of exploration and solving the puzzles scattered across the locations.

Myst was the best selling PC game throughout the 1990s, until its sales were surpassed by The Sims in early 2000s (Walker, 2002). Myst holds the first place on GOG.com's list of best-selling adventure games. On the Adventuregamers.com top list, Myst rates 18th (Adventuregamers.com, 2011).

2.3.4 Grim Fandango (PC / Lucasarts, 1998)

Grim Fandango is second to last of published adventure games by Lucasarts, followed only by Escape from Monkey Island in 2000. (GamesTM, 2010) The game approached the traditional adventure genre from a new technical perspective, featuring pre-rendered backgrounds and 3D characters. The game also used keyboard/game pad controls instead of the traditional point & click interface, although the puzzle and interaction mechanics were otherwise unchanged. In the game the player controls Manuel 'Manny' Calavera, a travel agent in the afterlife, who has a karmic debt to work off before he himself can move on. The game borrows a lot from Mexican mythology, especially the Day of the Dead traditions, and the characters are designed after sugar and papier-mâché skulls and skeletons used in these festivities.

Grim Fandango is the most requested adventure game (and second most requested game overall) on digital distributor GOG.com's community wish list with 28,898 votes (GOG.com, 2013a). It holds the highest score out of all PC adventure games on Metacritic and third highest score of adventure games for all platforms (Metacritic, 2013). It also rated first on fan-site Adventuregamers' Top 100 Adventure Games of All Time -list (Adventuregamers.com, 2011).

2.3.5 The Longest Journey (PC / Funcom, 1999)

The Longest Journey is mechanics-wise a very traditional point & click adventure game. It uses 3D in both characters (real-time) and backgrounds/cutscenes (pre-rendered), but controls and gameplay are not different from older 2D games. The game's protagonist is April Ryan, an art student in the technology-centric world of Stark, who finds out she has the ability to open passages between Stark and the magical parallel world Arcadia, both of which are in danger.

The Longest Journey rates second place out of all PC adventure games on Metacritic (Metacritic, 2013b) and fourth highest score of adventure games for all platforms (Metacritic, 2013a). On GOG.com it rates seventh on the best seller adventure games list and twelfth in user reviews for adventure games (with an average rating of 4,5/5 from a little over 400 reviewers)(GOG.com, 2013b). On fan site Adventuregamers' Top 100 Adventure Games of All Time -list, The Longest Journey rates second (Adventuregamers.com, 2011).

2.3.6 Machinarium (Amanita Design, 2009)

Machinarium is a point & click game with a distinctly hand-painted 2D style. The game combines classic point & click mechanics with some new mechanics. The game is played by clicking various hotspots on the screen as well as using items collected to character inventory with each other or with hotspots. However, unlike in many other adventure games, the character has a very limited range for actions and has to stand very close to the hotspots in order to interact with them or for the hotspots to even become highlighted. The range can be extended horizontally by stretching the robot character upwards.

Machinarium was developed by Amanita Design, a small indie game studio based in Czech Republic. The first game, Samorost, was published as a thesis work for Academy of Arts in Prague. (Amanita Design, 2012a) Machinarium was the first full length game of the studio (Amanita Design, 2012b).

Despite its indie roots, Machinarium has received both visibility and praise from critics and players alike. Machinarium rates 30th on Gog.com best-seller adventures list (GOG.com, 2013b), 5th in Gog.com user reviews(GOG.com, 2013b), 12th out of all PC adventure games on Metacritic (Metacritic, 2013b) and 17th on Adventuregamers.com Top 100-list (Adventuregamers.com, 2011).

2.3.7 Heavy Rain (Quantic Dream, 2010)

Heavy Rain is a very experimental interactive drama that focuses on storytelling and emotional impact as well as consequences of player actions and decisions. Unlike in video-intensive “interactive movies” of the 90s, the player is in direct control most of the time and can move around freely in each location. The game features a simple controller gesture -type control scheme that allows a lot of different contextual actions, although, as a downside, it may not always be immediately intuitive what action results from a given command in each situation. During more fast-paced action sequences, the progress is resolved using quick time events. The game features a storyline that branches based on player actions.

Heavy Rain rates 12th for adventure games on all platforms and fourth out of adventure games for Playstation 3 on Metacritic (sixth out of all games for PS3) (Metacritic, 2013c). Despite Heavy Rain's non-mainstream game mechanics and relatively small advertisement budget, the game was a financial success exceeding two million sold copies (Guardian, 2011) and \$100M sales revenue. (Gamefront, 2013) Heavy Rain is currently exclusive to Playstation 3.

2.3.8 Gemini Rue (Wadjet Eye Games, 2011)

Gemini Rue is a traditional point & click adventure game developed by Wadjet Eye Games, a small indie developer and publisher founded in 2006. (Wadjet Eye Games, 2013a) Set in a film noir & neo-noir cyberpunk-inspired world, the game follows two playable characters – Azriel Odin and Delta-Six – working to solve the same “gripping sci-fi mystery”. (Wadjet Eye Games, 2013b)

Gemini Rue rates 16th on Gog.com best-seller adventures list, 24th in Gog.com user reviews, 21th out of PC adventure games on Metacritic and 79th on Adventuregamers.com Top 100-list. Gemini Rue also won the Adventuregamer.com awards for both Best Story and Best Independent Adventure Game in 2011 (Adventuregamers.com, 2011).

2.3.9 The Walking Dead (Telltale Games, 2012)

The Walking Dead is an adventure game based on the comic book series of the same name, following a group of survivors in the aftermath of a zombie outbreak. The game follows a group of survivors different than the one seen in the comics or the AMC's TV series. Along with exploration, dialogue and quick time event-choices, the game features puzzles, although they are generally simpler both thematically and solution-wise when compared to many classic adventure games. (Telltale Games, 2013a)

Out of adventure games rated in Metacritic, the game ranks 3rd for PC games and, 6th for all platforms. Retail version received Metacritic's Game of the Year -title for year 2012 with the metascore of 95 (the score was 92 when accessed 14.4.2013). According to Telltale Games (2013b), the game has won over 80 different game of the year awards. The Walking Dead had not yet been published when the Adventuregamers.com list was created in 2011 (Adventuregamers.com, 2011), but the game is featured on recent releases -lists and the individual episodes have received ratings of 3,5 – 5 stars (average of 4 for critic reviews, 5 stars for user reviews).

2.3.10 Journey (thatgamecompany, 2012)

Developed by thatgamecompany and published by Sony Computer Entertainment America, Journey is a PS3-exclusive adventure game that has a strong focus for atmosphere and exploration. (Thatgamecompany, 2013) Unlike most adventure games, Journey contains a multiplayer element in that players may randomly meet each other in the desert game world, although there is intentionally little in the means of communication with or identification of your companion. The game is fairly short and doesn't have traditional adventure game puzzles. (Gamespot, 2012) Due to the lack of a more structured story and puzzles, one could argue that Journey isn't an adventure game at all. Still, I have chosen to include it into the analysis as a borderline case, since it also includes very little action and features a lot of exploring and story experience.

The second title of the source material to not be available on PC, Journey is currently exclusive to Playstation 3. In terms of Metacritic, Journey holds the second place of all adventure games. Out of all games published in 2012, Journey rated fifth best in Metacritic (with the Metascore of 92 out of 100) and received the Best Exclusive -award for its platform. Journey had not yet been published when the Adventuregamers.com list was created in 2011 (Adventuregamers.com, 2011), but in a review was rated 5/5 and it got the Best Graphic Design -award for Aggie Awards 2012. (Adventuregamers.com, 2012)

3 ANALYSIS

3.1. Methods of analysis & sorting material

In this subsection I will state my methods of analysis and provide a theoretical framework that will be used for the analysis proper. First, I will give some overall details about the source material (3.1.1). Second, I will expand on the different technical and stylistic genres I have divided the source material into (3.1.2). Third, I will begin to draft functional archetypes the material can be naturally divided into (3.1.3).

3.1.1 Overall details of source material

Most of the games are available for PC/Windows and some of these also have ports and/or remakes for other devices (including tablets and other mobile platforms. Two games – Heavy Rain and Journey – are exclusive for PS3.).

The Monkey Island -series, Gabriel Knight: The Sins of the Fathers, Gemini Rue and Machinarium use 2D graphics exclusively. Myst uses still-shots of pre-rendered 3D, while Grim Fandango and The Longest Journey use real-time 3D characters on top of pre-rendered 3D backgrounds. The Beast Within: A Gabriel Knight Mystery uses a combination of live-action video and pre-rendered 3D. Heavy Rain, Journey and Walking Dead chiefly use real-time 3D.

3.1.2 Technical categories

I have divided my source material into five categories based on technical aspects:

- pre-rendered 3D animation
- in-engine real-time 3D
- full 2D animation
- simple 2D with minimal animation
- live-action video

Pre-rendered 3D animation became a very common type of cutscene after the advent of CD-ROM technology. In this type of cutscene, the original high-detail models, textures and animations are processed by a powerful rendering computer (or set of computers called a render farm) and rendered into a compressed video file that is shipped with the game to the end user. This ensured compatibility with any end-user machine at least powerful enough to run the video. The graphics quality of these pre-made videos can not be altered at runtime, so it was not uncommon to include two or more quality levels of the same cutscene on the game disc. With the limitations of hardware, it was the best available medium for displaying complex events and graphical splendour. In modern gaming the more powerful hardware has reduced these benefits somewhat, but pre-rendered videos are still used. They are especially frequent in game intros and early teaser trailers that are often of a very high graphical quality.

In-engine real-time 3D has become more and more common in modern games, steadily claiming ground from pre-rendered 3D. The main reasons appear to be the advancement of gaming hardware, which has brought the level of in-game graphics closer to that of cutscenes. The main benefits of real-time 3D are scalability (there is no need to scale an existing video file up or down in size since most of the graphics are calculated at runtime) and reduced size (high-quality video takes up a lot of disk space and is still not as sharp and crisp as real-time). On the downside, even on modern hardware you have to be conscious of polygon and object limits and other technical constraints to keep the game running smooth on all target platforms.

Full 2D animation is the category closest to traditional animation seen in non-3D animated films. The category covers all animation that, for the most part, neither uses 3D-rendered graphics nor real video footage, although some of both can be used in a supporting function. Full 2D animation is not as common as many other categories since it can consume a lot of resources and, in 3D games, can differ a lot from the overall graphical style, but it is still used now and then.

Simple 2D with minimal animation, on the other hand, is the lighter and more common type of 2D animation in games. This category covers a wide variety of technical and visual styles connected by the same limitations – there are a lot of individual still backgrounds with only a limited amount of animation, movement and post-processing effects. Examples of this style range from the simple slide-show intros to more complex

motion comics with many layers creating faux-3D parallax effects. Simple 2D is very resource-effective – even a single artist can produce materials needed for such cutscenes within a reasonable timeframe and the level of detail is usually not limited by hardware constraints (with the exception of screen size on portable devices). It also puts fairly little strain on the hardware whether or not the animation is completely pre-recorded or calculated on the run. Therefore it is not unexpected that it is used a lot in indie games, although it has also seen use in modern AAA titles (e.g. *Witcher 2*).

Like pre-rendered cutscenes, live-action video became immensely popular when CD-ROM drives brought about a huge increase in the available storage capacity. Cutscenes in this category can include 3D-rendered details, environments or special effects, but generally rely on human actors. Live action videos are not very common in modern games, but are still occasionally used (e.g. *Command & Conquer* -series).

3.1.3 Common functions of cutscenes

Salen and Zimmerman (2004: 408–412) define the following basic functions for cutscenes: Surveillance or Planning tool (for the player), Game Play Catapult, Scene and Mood setting, Choice and Consequence (in relation to player actions), Rhythm and Pacing and Player Reward. I will use these main types as a basic framework and starting point, customizing them to better match my needs in analysing specifically adventure games. My final list of basic cutscene functions includes the following ten categories:

- Surveillance
- Hint
- Foreshadowing
- Transition
- Scene setting
- Mood setting
- Choice and Consequence
- Resolution
- Rhythm and Pacing
- Player Reward

Surveillance or Planning tool

By Surveillance or Planning tool, Salen and Zimmerman (2004, p. 408, 410) mean practical information that the player can gain from a cutscene:

”As a surveillance tool, cutscenes might allow players a glimpse of another part of the game space, or provide information on the current whereabouts of a character or a character or treasure they are seeking. As a planning tool, cutscenes can provide players with information about an event or obstacle they will soon encounter, or elaborate on the outcome of an action.”

Especially the first half translates well into adventure games – cutscenes can be very useful in showing players e.g. changes or events in previously explored areas that point the player in the right direction. Adventure games can use cutscenes that show the player what their (current or future) adversary is up to even before the enemy is encountered in the actual gameplay, but the function is centred on storytelling rather than strategy – i.e. preparing the player on an emotional level and creating tension and expectations. As this type of cutscene is not directly covered by any of Salen and Zimmerman's categories, I will add a new category, called Foreshadowing.

Planning tool, on the other hand, is not as directly applicable, since in adventure games it is rarely possible to make any additional preparations when entering a new situation – a well designed adventure game makes sure you have to have all the right things with you when you proceed to a completely new area. Instead, adventure games frequently utilise cutscenes and scripted events in providing hints and pointers to the players, pointing them at the (single) right solutions. In place of Planning tool, I will include another new category: Hint.

Game Play Catapult

By Game Play Catapult, Salen and Zimmerman (2004, p.410) mean transitions that move the character and/or storyline to a new location, state or situation:

”[cutscenes] can also work to catapult a player into a new situation. They can add narrative drama by building suspense, or provide narrative movement from one situation to the next.”

These kind of transitions are fairly common in adventure games of all kinds – during a cutscene a character can e.g. get locked in a cell, knocked unconscious, transported to another dimension, or just travel by public transport from location to another. For clarity and simplicity, I will simply call this type of cutscene “Transition”. By Transition I will, from now on, mean any situation where the character situation or location distinctly changes during the cutscene.

Scene and Mood setting

By Scene and Mood setting, Salen and Zimmerman (2004, p.410) mean cutscenes that serve to create mood and atmosphere to a game world or game situation:

”Cutscenes can reinforce the differences between settings and highlight what might be new and unusual about an upcoming level. [...] Cutscenes can also establish mood, or reinforce the emotional arc of game events.”

This category fits adventure games without significant changes. Scene setting has some overlap with Transition, but I will keep both in case there are special cases where a cutscene is distinctly one and not the other. I will separate the two to their own categories: Scene setting as one, Mood setting as the other.

Choice and Consequence

By Choice and Consequence, Salen and Zimmerman (2004, p.410-411) mean cutscenes that show the results of player actions (implying the player had at least some choice in the matter):

”Cutscenes give game designers the power to dramatically reveal the outcomes of player choices, outcomes that can affect not only the player's character, but often the game world as well.”

In some branching adventure games Choice and Consequence is directly featured – in my source material at least *Walking Dead* and *Heavy Rain* exhibit examples of this category. Furthermore, in some adventure games there are special consequence animations for the death or other failure of the character, i.e. special game over animations. Still, the category doesn't fit too well to the adventure game genre in general – in most adventure games there are fairly few optional choices for the player to

consider, since certain key actions have to be completed or the game simply won't continue, and optional objectives are very scarce. Therefore I will retain this category for special cases, but also add a new category specifically for traditional adventures, which I will call Resolution. By Resolution I will refer to all cutscenes that show the player what happened as a result of a player action – most commonly a completed puzzle.

Rhythm and Pacing

By Rhythm and Pacing, Salen and Zimmerman (2004, p.411) mean cutscenes that serve to hasten or slow the pace of the game:

”The rhythm created by the cutscenes is a way of controlling the game's overall pacing. [...] Variation and control of cutscene pacing contributes to narrative play by emphasizing specific moments in a game. A long, slow cutscene that follows a player's solution to a particularly difficult puzzle can signify the importance of the event in the overall game experience.”

This category is universal enough to fit most games with a structure and arcing overall storyline, including adventure games. It will be used in the analysis without any need for changes.

Player Reward

By Player Reward, Salen and Zimmerman (2004, p.411) mean cutscenes that reward the player for successfully completed goals and progress:

”Although using cutscenes as rewards might seem like a straightforward design idea, the experience of receiving such a gift during game play can be tremendously satisfying and motivating.”

This is a very common cutscene function in adventure games as well as many other genres. It is fairly difficult to define exactly or exclusively since reward cutscenes often also communicate some other information or meaning (e.g. Resolution or Transition are common examples, but almost any cutscene could be seen as doubling as a Player Reward). In adventure games the scale of cutscenes that might qualify for this category is very wide. Often more complex puzzles result in longer and more visual “rewards”, whereas even small individual tasks may result in some small scripted event to give the player positive feedback. This function will be used without need for changes, although I expect most use cases to overlap with one or more other functions.

3.2.Functional analysis

In the previous section I laid out a framework for the analysis by drafting a set of functional categories of cutscenes. Next I will proceed to analyse the data in relation to that framework by defining the core purposes of the example cutscenes and noting possible overlapping roles.

I will focus on two main aspects for each example – their structural/design function(s) in the game and their narrative functions as elements in the game story. I will cover the example cutscenes one by one in the same order that I introduced them in.

3.2.1 Monkey Island 1-2 (Lucasarts, 1990/1991)

The Secret of Monkey Island (hereafter MI1) and Monkey Island 2: LeChuck's Revenge (hereafter MI2) both use exclusively 2D graphics and animations. The fourth part of the series, Escape from Monkey Island, uses 3D graphics, but didn't rate high enough on any of the source lists to be chosen for analysis. The fairly successful third game The Curse of Monkey Island uses 2D graphics, but was cut out to limit games from the same series. Of the original two games there are recent remakes that are also available for Xbox 360 (Lucasarts, 2013).

In MI1, the first and most common cutscenes are scripted events. These are short periods of non-interactive animation after the player has solved a puzzle, arrives to a new location or otherwise triggers an event that moves the plot forward. Second, the game also features occasional scenes that resemble full-fledged cutscenes in that they are longer, interrupt the flow of the game and may temporarily take the viewpoint away from the character, showing the player something that the character has no way of seeing or knowing (e.g. a scene showing the main villain's reaction as he learns of some new feat of the player character). These longer scenes are a lot less common, however. Third, at the start of each chapter there is a very brief textual cutscene that shows the name and number of the new chapter. All cutscenes except the intro of the game (which too includes very little animation) seem to be in-engine and are set in the backgrounds of the game without any variation in camera angles. The game GUI (which usually

displays inventory and available commands) is hidden during these cutscenes with only the black background visible.

Attachment 1 is the first cutscene of the second type in MI1. It is triggered when the player character has visited Scumm bar, a plot-critical gameworld location, for the first time. The cutscene consists of three sections. First part of the scene opens with the text “Meanwhile...” on a black background. The music in the background is somewhat ghostly and threatening – it will later be established as the theme of the main villain LeChuck. Second screen features the text “Deep beneath Monkey Island, the ghost pirate LeChuck's ship lies anchored in a river of lava.” This time the background behind the text shows a scene with a blue ghost ship floating in lava. The screen will be a playable location much later in the game, but this is the first time it is shown. Third, the background changes again to show the inside of the captain's cabin of the same ship. A looming transparent figure stands at the window as a skeleton with a peg leg enters the room. The two then engage in a brief conversation in which the newcomer tells the first ghost – the antagonist of the game LeChuck – that there's a new wannabe pirate in town. The second ghost proceeds to explain that the newcomer probably won't cause trouble, but LeChuck insists on handling it personally. The other ghost leaves the room and the cutscene ends.



Picture 1: Introduction of LeChuck.

The first and most apparent function of Attachment 1 is Foreshadowing. The scene introduces many story elements for the first time – the ghost pirate LeChuck, his

hideout and ship (both as story elements and later playable areas) and even the titular Monkey Island. The nearby category Surveillance is not applicable here, since despite the new information the player has no real chance to prepare because the game is linear with only one possible outcome. Second, Scene Setting is also applicable, in a way, although the scene being set is not accessible for a long while. Third, Mood Setting is an accurate match, since the reveal of a powerful enemy certainly creates tension in the storyline. Finally, Player Reward is arguably applicable – there has been relatively little progress so far, but the cutscene implies that the character is already on his way to becoming a threat to the main villain. Other cutscene functions are not applicable.

Should the cutscene be removed, the player would have no immediate way of knowing something is missing, since the cutscene is not started by an obvious trigger and does not affect immediate gameplay. The player would simply enter a doorway and resume play on the other side like one would expect. The missing Foreshadowing / Mood Setting functions could make the later plot points seem arbitrary and less dramatic, however, and the character of the main villain would have to be established in some other way. Alternative ways of foreshadowing are already utilised to a point – the main villain is also described by the other pirates as a fearsome monster that dominates the seas so that nobody dares to set sail – but it would be hard to use this method to convey the fact that the villain has already noticed the main character. The lack of early on Player Reward function might also make the early game less captivating, but this seems to be a secondary function to the scene, since the player gets positive feedback for many individual actions at this point as well.

In MI2 the overall graphical style is very similar to the VGA version of the first game, although there is more movement and animation in the backgrounds and environments. Despite the same resolution (320×200) and colour depth (256 colours in the VGA version in both) the backgrounds seem somewhat more detailed and colourful than in MI1. The base cutscene types are the same as in MI1. First, there are the short triggered events showing results of successful action or other progress. In MI2 these scenes tend to have more complex animations, effects and even occasional close-ups with separately drawn backgrounds. Scenes with special animations are also more common. Second, there are the slightly longer versions that include longer non-interactive dialogues and a bit more special animations, although they are now less distinct from the shorter ones.

As an improvement to MI1, these may now also have extra screens for introducing new locations.



Picture 2: Location introduction for LeChuck's fortress.

Finally, the chapter change scenes are essentially the same kind of static screens with music and text, but the screens now have background graphics and hand-painted text.

Attachment 2 is an example of the second cutscene type in MI2. It is a short in-engine cutscene that features some environmental effects, special animation and a short break from the main character's point of view. The cutscene is triggered when Guybrush uses a shovel on the grave of the chapter's main villain Largo LaGrande's grandfather. This is part of a puzzle – Guybrush needs a piece of bone from a dead relative of his enemy to put together a voodoo doll to help overthrow Largo's tyranny. The cutscene consists of two parts. In the first part, Guybrush walks over to the grave with the shovel, commenting how creepy it feels. As he digs, grim music plays and sudden dramatic lightning flashes in the graveyard despite the clear sky. The first part culminates as Guybrush finishes digging and lifts a bone from the grave high above his head. At the same time his pants fall down. A quick cut to second part follows immediately. In the second part we are shown Largo in his room. He feels sudden unease and swears on his grandfather's grave that something weird is going on.



Picture 3: Guybrushes graverobbery.



Picture 4: Largo's room.

The main functions of Attachment 2 seem to be Resolution and Mood Setting. The cutscene is an immediate result of a player action, shows the resolution of that action and also doubles as both a dramatic climax and an unexpected humorous twist. Furthermore, the cutscene is also a good example of a Player Reward – as a scene it is more polished than more common simple scripted events and it seems reasonable to argue that it is a reward for completing one part of a major task. The break in character point of view is used to amplify both the dramatic and humorous impact of the scene rather than foreshadow any future events or provide information other than that the grave really belonged to a relative of Largo's. Scene Setting may apply, since it is possible to reach the cutscene before visiting Largo's room. For a player who doesn't

know where to find it the scene could also provide some sense of direction – in this sense it could also be considered a Hint.

If the cutscene was removed, using the shovel on the grave would instantly result to the bone appearing in the inventory with little else. The situation would still be understandable and logical without any animation, and could also be easily replaced with a very simple action animation while preserving the Resolution function. Therefore, the fact that the cutscene isn't immediately required by the situation would seem to further underline the Player Reward and Mood Setting functions.

3.2.2 Gabriel Knight: The Sins of the Fathers (1993) and The Beast Within: A Gabriel Knight Mystery (1995)

While similar in themes, gameplay and characters, the first two Gabriel Knight -games differ a lot in terms of graphics. Gabriel Knight: The Sins of the Fathers (hereafter GK1) features hand-drawn graphics and a somewhat colourful graphical style. The second game, The Beast Within: A Gabriel Knight Mystery (hereafter GK2), discarded this style in favour of FMV graphics (with the inclusion of some 3D art for the werewolves) (see terminology) including live-action actors and photographed backgrounds, leading to more detailed and natural character movement, but a less varying colour palette and fuzzier image quality.

For GK1, there are four main cutscene types. The first category comprises of the chapter openings. The game is divided into ten chapters – one per in-game day. Each day begins with an early morning shot of the street outside the main character's bookshop with some mundane morning events taking place (on a regular morning a paper boy brings the newspaper and Grace comes to work). A threatening main theme plays in the background as the day's number appears on the screen, painted in red. These scenes are always accompanied by a text segment from the same longer poem written specifically for the game. Later on, the intro imagery changes depending on where the main character is, but the music, red headline and poem quote are found in the start of every chapter. The second category includes simple scripted events, which involve only an individual animation (e.g. reading a newspaper) or a simple triggered non-interactive dialogue. The third category contains the more complex scripted event clusters – these

can involve character animation, environmental animation such as cars arriving or leaving a scene and occasional close-ups, but everything is strictly in-engine. Even these close-ups seem to use the same system that is used for inspecting inventory items. These events often involve fairly long scenes with lots of special animations and non-interactive dialogue. The second and third categories both commonly result from player interaction with the environment or the player entering a new area. The two categories could be argued to be two extremes of the same category, but I have opted to handle them as separate cases since simple and complex events may have different functions and use contexts. Fourth, there are motion comics that represent higher quality 2D art with simple animation. The sequences are often arranged into animated comic pages where frames appear and animate individually as the scene unfolds. The motion comics are often seen in the middle of real-time scripted events.

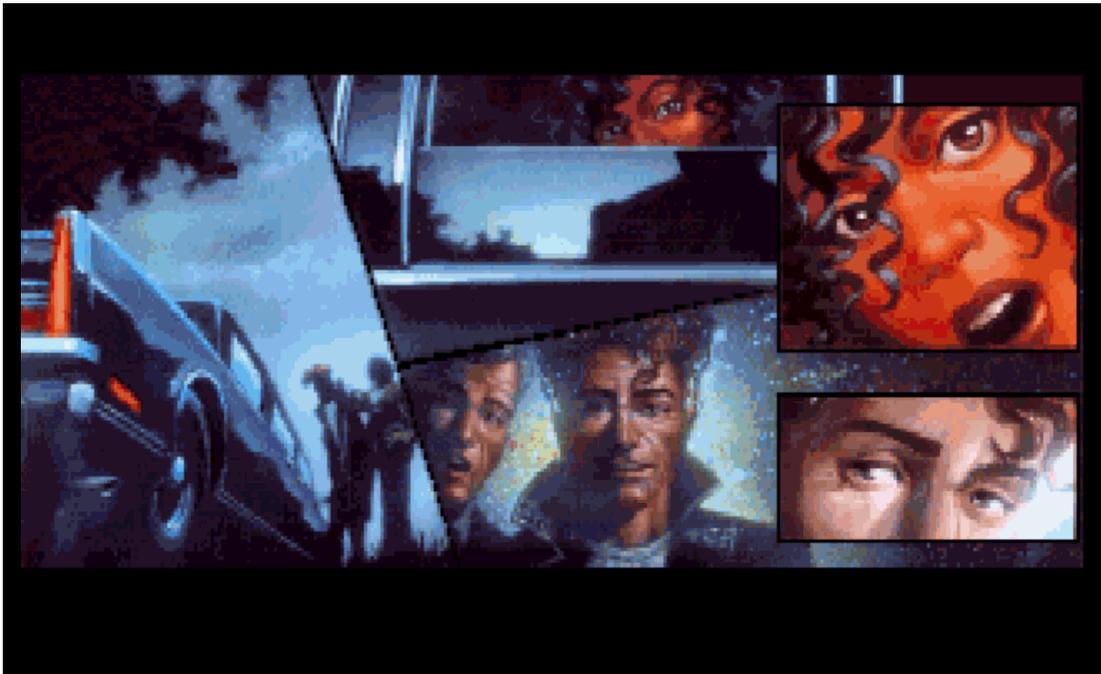


Picture 5: The crime scene.

Attachment 3 is an example of a longer, scripted cutscene in GK1. The scene begins when the main character has discovered the location of a murder site he wants to go to scout for his book and enters the site for the first time. The fairly complex scene consists of four main parts.

The first part is a starting narration that narrates Gabriel arriving on the scene and parking his motorcycle out of sight. The scene of murder is shown on the screen, surrounded with police tape and full of police officers and emergency vehicles. The location is a lot by a road and next to a lake. Two police officers are investigating the

body on the ground, a third one is further off investigating the grass. Detective Mosely, the main character's contact, is standing in the middle of the scene. As Gabriel watches, two of the officers leave the scene in a squad car, leaving behind one police officer, Mosely and an ambulance with its crew. The victim's body is bagged, but not yet transported. Gabriel then enters the site and engages in conversation with Mosely. The second part consists of a dialogue between Gabriel and Mosely, in which Mosely agrees to show him the victim's body and explains that there are no real bodies. They discuss the case until they are interrupted by a passing luxury car that stops next to the scene.



Picture 6: Motion comics in GKI.

The third part is narrated in motion comic style. Detailed and slightly animated comic panels show the window of the darkened passenger seat window of the car open. A woman with dark curly hair peers out and she and Gabriel stare at each other, appearing awestruck. The comic scene then ends.

The fourth and last part are again narrated in-engine with dialogue and animation. The woman asks if there is a problem and Mosely tells her that she has nothing to worry about. After the car leaves, Gabriel expresses admiration for the woman while Mosely explains him that the woman, Malia Gedde, is very rich and “out of [Gabriel's] reach”. Gabriel suggests that someone should interrogate Gedde while Mosely doesn't think it worthwhile. Finally, the police officer on the scene tells Mosely they've finished investigating and asks whether or not to leave an officer to guard the scene. Mosely tells

him it won't be necessary. Mosely and the other police rescue personnel then vacate the scene, taking the body with them, and leave Gabriel to investigate on his own.

The main functions of Attachment 3 seem to be Foreshadowing, Scene Setting, Mood Setting and Hint. First, the scene introduces Malia Gedde – a character very essential to the plot – and suggests some sort of chemistry between Gedde and Gabriel. Second, the scene further establishes the relationship between Mosely and Gabriel as well as sets the scene and mood of a busy murder scene. The complex scene also serves as a Player Reward, since finding out the location of the crime scene requires solving a fairly non-traditional puzzle. Finally, the scene gives the player some ideas on how to proceed. The first hint is the suggestion that Malia might be interrogated. As for the second, the scene gives some pointers of details Gabriel should investigate after the scene ends by displaying the police officers investigating around a few key locations, at least one of which (a patch of grass to the right) would be hard to notice otherwise.

If the cutscene in Attachment 3 were to be removed, the player wouldn't immediately know something was missing. The location would still be recognizable as a crime scene from the police line and blood on the sand, although details would be lost. The location would be a lot emptier, however, and might not be as interesting without first seeing the site full of staff. Having Gabriel see the police and investigate alongside them would effectively eliminate the need for this part of the cutscene, but would feel a little forced and probably alienating as normally civilians are not allowed to enter the crime scene during the initial investigation. The foreshadowing function would be lost completely and Gedde would have to be introduced in some other way. Finally, the Hints relayed through dialogue and actions of the police officers would be lost and the game would be harder to solve. Out of the functions of the cutscene, Foreshadowing and Hint would seem to be most crucial for smooth gameplay.

In GK2, due to it's FMV nature, the amount of cutscenes is copious. The first type – interaction cutscenes – is the most common and the most simple. In the game most character actions are displayed as unique video clips that are only used in one context and one situation in the game, even though some of them can be repeated in that one context. Other than movement, everything from kneeling to inspect a footprint or picking up an item from a desk to more complex actions is covered by separate video sequences of varying lengths. Second type, also very common, is dialogue cutscenes.

All dialogue in the game is recorded in both audio and video. The third and final type is also the one closest to a traditional cutscene – unique sequences. These video sequences are often longer and more complex than the other types and are notable for never being repeated during a playthrough.



Picture 7: Gabriel Knight and the reporter in camera view.

Attachment 4 is one of the three long cutscenes in Chapter 3. The main character Gabriel is in Germany, trying to approach a certain detective at a murder scene to exchange information, but the detective does not take him seriously. To get his attention, Gabriel begins to disclose his evidence to a nearby news crew, eventually forcing the detective to agree meeting him later. The cutscene is triggered when the player uses the evidence item with the news crew, and consists of three main parts. In the first part, Gabriel approaches the news crew and tells them he has some information he would like to give to the police, but failing that he is ready to give it to the media. He speaks in an exaggeratedly loud voice, making sure the detective can hear him. The news crew agree to interview him. The second part is the actual interview, which is shown through the eyes of the cameraman with a greyscale filter over the picture. Gabriel begins to disclose the facts he has uncovered so far and the news reporter translates them into German for the camera. The interview ends prematurely when the detective tackles Gabriel out of the picture. In the third part, the detective and Gabriel talk by a nearby van. The detective demands to know who Gabriel is and, after Gabriel explains his

business, promises to meet him later as long as he leaves the scene and doesn't tell any more details to the media. The detective leaves and Gabriel walks out of the picture, looking content.



Picture 8: Gabriel Knight and the detective.

The main function here is Resolution – the whole point of the cutscene is to show how the player action solved the puzzle at hand and got Gabriel his interview with the detective. As for secondary functions, Scene and Mood Setting are strongly present in the overall execution of the cutscene – the video sequence contains a lot of gestures and body language that would have been hard to convey without human actors, and the news anchor's diligent translations into German add to the feeling that the game is really set in Germany. Player Reward is also present, since the solved puzzle is very central and there are generally only two or three long cutscenes like it per chapter.

If the scene was removed with no other changes, the player wouldn't know that the attempted action was successful and the puzzle is solved, which supports the idea that Resolution is the central function here. It would have been feasible to replace the scene with a dialogue scene, but since the dialogues of the game are also shot on video it might not save much effort. A simple scripted exchange with less video might also have conveyed the same information, although a lot of the impact of the characters' expressions and gestures would have been lost, as noted above.

3.2.3 Myst (Cyan, 1993)

Myst utilises a combination of recorded live-action video, pre-rendered 3D-animation and pre-rendered still backgrounds in their graphics. The game relies largely on scripted and triggered sequences in its storytelling and gameplay. The simple cases – button pressing and switch turning animations and sequences – will not be considered cutscenes.

In Myst, the use of cutscenes is very frequent. The first and most common cutscene type is the state change. These sequences are often simple and feature environmental changes such as opening (or appearing) doors and passageways and moving machines. State changes in Myst mainly result from direct player interaction such as interacting with an object or otherwise solving a puzzle. The most simple examples such as turning switches with no other visible effect will not be considered cutscenes at all since they do not seem to disable player control for any noticeable period. Second, there are special movement animations, such as when a player rides an elevator. Most of these are re-used whenever the player uses the same transportation device, but are always tied to the same location. Finally, there are special dialogue sequences. Like state changes, they often result from solved puzzles or other direct player interaction (e.g. the use of certain books triggers video sequences), but I have devoted a category to them due to the fact that they are the only contact with non-player characters in the whole game. There is usually no interaction in these scenes on the player's part, although in some endgame special scenes the non-player character asks for a specific item which the player can then give to him.

Attachment 5 is one of the few dialogue scenes in the game and among the closest there is to a longer cutscene in the game, excluding the intro and outro sequences. The cutscene consists of only one part, which is a recorded video message from Atrus, the person who apparently built the island of Myst and created the magical books stored therein. The message is displayed after solving a puzzle that involves counting marker switches spread around the island. In the message addressed to his wife, Atrus explains that one of their two sons has done something terrible and most of his books have been

destroyed. He proceeds to explain that he has hidden the remaining books and reminds the recipient to “remember the tower rotation” if in need of the access code.



Picture 8: Atrus's message plays in the cauldron.

The main functions of the cutscene appear to be Resolution, Hint, Foreshadowing, Mood Setting, Resolution and Player Reward. Resolution is directly applicable, since the message itself is a direct response to the player entering the right code. Hint is another very central function, since the core gameplay consists of puzzles and the puzzle involving the access code and tower rotation is essential for progress. Foreshadowing is present in the little that is said about Atrus' two sons, both of whom the player will later find trapped in magical books in the library, as well as other minor references to the so far untold backstory. Mood Setting is present throughout the message and is underlined by the fact that there are very few full video sequences and nearly no characters in the game – the individual recorded message on an empty island (the player has had to explore the island through once to find the code to unlock this message) is very central to the atmosphere. Player Reward is also present, since there are few videos and only the right solution displays the actual message, although some other codes display other less extensive visuals.

If the cutscene was removed with no further changes, it would render the puzzle futile since there would be no response to the right solution. It would also make the following puzzle rather arbitrary and much harder to solve, thus affecting gameplay. Furthermore, the loss of Foreshadowing and Mood Setting here might change the way a new player

experiences the surrounding empty island, since messages like this are fairly scarce and there are few other storytelling elements in the game. The cutscene could be replaced by a simple note in text, but any Player Reward function would be completely lost.

3.2.4 Grim Fandango

Grim Fandango contains two main types of cutscenes – pre-rendered and real-time. Real-time cutscenes range from simple responses to player commands to triggered gameworld events. Because of the pre-rendered backgrounds of the game, real-time cutscenes are always limited to the same fixed set of camera angles and positions that are available when moving around. Pre-rendered cutscenes, on the other hand, contain a lot of special character animations, non-interactive dialogue, facial animation, effects, various camera angles and camera movement.



Picture 9: Game character Domino and player character Manny.

Attachment 6 is an example of a pre-rendered cutscene that consists mostly of a conversation scene. The cutscene is triggered when the player character, Manny, ends a conversation with a client and heads to his boss' office to find out why the company database shows conflicting information about her – she is supposed to be a high-class customer who has lived a good life and qualifies for the best afterlife transportation, but

Manny's terminal shows nothing for her. The cutscene consists of three main parts. In the first part, the boss' door slams open before Manny reaches it and the boss shouts at him to get in his office. The second part is a pre-rendered dialogue scene set in the boss' office. The participants in the conversation are the Manny, his boss and his rivaling colleague Domino. The boss is angry to the main character for breaking the rules of the company in order to steal a customer from Domino. Manny responds with a complaint that the system is biased and all good customers always go to Domino. Domino replies in a smug manner and the boss sides with him. The boss asks the secretary to send in the customer for Manny to apologize to her, but she has already left the building – on foot. The boss is furious, demanding to know why she left on foot when she was supposed to get a ticket on an express train. Domino and the boss both taunt Manny, making it seem like the mix-up was his fault. The boss goes on to describe the dangers the customer will now face because of Manny. In the third part the pre-rendered section is followed by a short in-engine scene where the boss locks Manny into a storage room to wait for his punishment.

The main functions of the cutscene are Foreshadowing, Transition and Mood Setting. Foreshadowing is most apparent in the overhead remarks of the dangers (e.g. Petrified forest) and the length of the journey in general. Transition takes place both physically (Manny starts in a corridor outside his boss' office and ends up locked in a closet) and on a more abstract level (Manny is now in serious trouble with his employers). Mood setting is present throughout the scene – Manny's image as a good-hearted underdog is strengthened, and there is also a discernible air of threat at the end. Choice and consequence would be applicable if the player had more choice over the solutions, but since there was only one solution to begin with it doesn't apply.

Had this cutscene been removed without anything added in it's place, the immediate effect would be that player would miss some key points of information: that the client should have had a clean record, but main character's computer showed him false records and he will now be punished for a mistake he didn't really make. Second, it underlines main character's role as the underdog in the company he works in – he is obviously being kept in the dark about many things and any attempts to fix the situation just get him in deeper trouble. Still, even if the player skipped the cutscene they would still know that they were locked in the room by the boss, because that part is a separate piece of in-game animation. The cutscene could have been easily replaced with an in-engine

conversation scene, but a lot of the movie-like nature of the scene would have been lost – the camera shifts from character to another, the angry faces and gestures of the boss, the smug expressions and postures of the main character's main rival and finally the first defiant but ultimately ashamed reactions of the main character.

3.2.5 The Longest Journey

The Longest Journey (hereafter TLJ) contains both pre-rendered and real-time cutscenes. Real-time events are fairly frequent and very short events that play out when some script is triggered (e.g. player completes a puzzle or enters new location). Many of these events are really short and simple scripts that involve characters moving around, running simple animations and triggering dialogues, although in special cases they can have some variation. The pre-rendered cutscenes are somewhat more detailed and contain some facial animation. The major cutscene sequences of the game often feature a combination of in-engine scenes and a pre-rendered part. In either case, there is no interactivity during the cutscenes.



Picture 10: The portal to Arcadia.

Attachment 7 is a long sequence that consists of four real-time parts and one pre-rendered part. The scene is interrupted at three points by minor interaction – two dialogue choices and one walk-command. None of these choices changes the scene in a significant way, however, so I will consider the scene one long sequence rather than several shorter ones. The first part begins when the main character April finds her

mysterious mentor Cortez in a movie theatre after many difficulties. They talk and April demands answers to her questions. Cortez agrees, telling her it's better for her to see for herself. They leave the movie theatre. In the second part, Cortez and April are at the back alley next to the movie theatre. Cortez then asks April to stand back and opens a blue portal on the back wall of the alley, telling April to enter. April hesitates, and Cortez says she must decide for herself. Here the player has the choice to say no and interrupt the cutscene for now, but at this point in the game there is nothing else to do – the plot only moves forward when you return to Cortez and agree to enter the portal. As April enters, Cortez tells April to find Brian Westhouse when she wants to return from the other side. The third part is a pre-rendered sequence that is triggered once April enters the portal. It shows April walking in a tunnel of bright light and finally falling out at the other end. The fourth part shows Cortez looking through the portal after April, wishing her protection on her journey. The fifth and final part of the cutscene shows April in a temple on the other side with a mural-painted stone wall in the background. She calls after Cortez and, getting no reply, reminds herself to find Brian Westhouse as soon as possible to get back home.



Picture 11: April falls through the portal.

The main functions of the cutscene are Transition, Mood Setting, Foreshadowing, Hint and Player Reward. Transition is in a very central role since the main character is transported to a completely different dimension during the scene. Transition also takes place on a more abstract level since April is forced, to some degree, to accept the fact that some supernatural forces exist in the world. Mood Setting is present in the scene as a whole. The longer dialogue that precedes the opening of the portal creates an

atmosphere of anticipation without stating what exactly is about to happen, while the open portal in turn evokes interest in what lies on the other side. Foreshadowing is present in numerous small dialogue points, including Cortez's last words in the cutscene, in which he hopes that Balance will protect April. Balance between the worlds will prove to be a central theme and goal in the longer story arc, but has not been handled in detail until this point. Hint function is also important, since the cutscene lets the player know the next main goal – to somehow find a person called Brian Westhouse in order to return home. Player Reward is present in the whole scene as well as the whole new environment unlocked for exploration after the cutscene. Rhythm and Pacing is also applicable, since the long dialogue with only rudimentary interaction slows the game pace down for a while between the preceding, somewhat complex, puzzles and the next ones awaiting beyond the portal.

If the cutscene was removed with no further changes, the skip would be clearly noticeable. The loss of the Transition function would make the game jump instantly from a movie theatre to an unknown temple and break game flow completely. Furthermore, the player would not know where to go or what to do next, since the Hint also took place within the cutscene. The loss of Foreshadowing and Mood Setting within this cutscene might not cause as serious problems as the other functions, since the game would still be playable and understandable without them. The loss of the Player Reward function, on the other hand, would lead to an anticlimactic situation since reaching this point has taken a lot of work. Replacing a cutscene like this with methods that include more interaction would probably take away from the grandeur of the scene and make Cortez's solo shot impossible to show.

3.2.6 Machinarium (Amanita Design, 2009)

Machinarium features a very distinct art style that appears to utilise traditional media both in backgrounds and character animation. Machinarium is so rich with animation it can be difficult to define which parts should be labelled as separate cutscenes. More or less every player action except moving around seems to have a special animation, whether it is picking up things, using them on other items or interacting with something else in the gameworld. Since most of these are very short and simple and only take away player control for a very short time, I will not consider most of them actual

cutscenes. Since there are no separate non-realtime cutscenes either, this appears to leave only one cutscene category – scripted events. These can be triggered either by player interaction or by entering a location and result in any event more complex than individual reaction from the player character.



Picture 12: The bridge is lowered.

Attachment 8 is a slightly longer cutscene from very early in the game. The cutscene consists of two parts. In the first part, the main character – a small robot – walks along a winding road towards a large castle-like building. As the character is about to reach the castle, another unknown robot comes to view, walking in the same direction. At the beginning of the second part, the character walks into a new screen. There is a moat with a drawbridge to the right with a doorway on the other side. A guard post painted white and blue stands by the moat. As soon as the main character stops, another character bumps him aside and walks past to the guard post. The character is a police-like robot wearing a light blue hat with a blinking light. The newcomer pulls a doorbell cord, greets the guard robot that now appears at the post and asks him to lower the bridge. The guard turns a lever, the bridge lowers and the newcomer walks over the bridge into the doorway. The bridge raises again and the cutscene ends.

The most central functions of the cutscene are Transition, Scene Setting and Hint. Transition applies only to the first part (which also serves a secondary Scene Setting / Mood Setting function in showing some overview of the world), whereas the latter part

establishes the setting for the next puzzle, communicating the goals of the scene – to impersonate these blue and white robots in order to get past. There is also a minor piece of Foreshadowing – the robot passing the drawbridge takes trouble to avoid a patch of oil on the bridge. After the puzzle is solved, the main character slips on the same oil patch and falls to the screen below, where the game then continues.

If the cutscene was removed with no further chances, the player wouldn't necessarily know that something is missing, since the previous screen's exit is to the right and the destination screen's entrance to the left, although the player's understanding of the surrounding landscape would change. Therefore the Transition function is not crucial for gameplay flow, but works in a supporting role. Scene Setting function seems to serve a similar role – the new screen's layout is visible at once after the transition and the only hotspot explicitly introduced through the cutscene (the pull cord) is very visible even without it. The Hint function is very central, however – without the cutscene there would be no clear indication that only a robot with certain visual characteristics can cross the bridge. The minor Foreshadowing function is not central – the oil patch is already marked by a constant animation of dripping oil and in any case the player has no option to avoid it.

3.2.7 Heavy Rain (Quantic Dream, 2010)

Heavy Rain features a very realistic 3D art style and third person game mechanics that focus extensively on cutscenes and complex animations. The game has very few consistent controls and apart from movement and camera controls almost all gameplay is accessed via various context-sensitive gestures or Quick Time Events. The same gesture may, for example, mean sitting down in one situation and inspecting the ground in another. Each action results in a (most commonly unique) animation or, at times, a longer scene.

Due to the game's focus on complex animations, the cutscene types are very close to each other. I have opted to count out the individual single actions that make up the core of the free gameplay, although even those could be considered short cutscenes. The rest can be divided into following two main categories. First, there are triggered sequences. These are short sequences of actions that may contain interactivity in the form of quick-time events, but do not allow free movement between single actions. The second type is

cinematic sequences. They are longer, more film-like, and represent a more constant break in interactivity. They also frequently utilise cinematic effects such as splitting the screen into several smaller view ports focusing on different things in the unfolding scene.



Picture 13: Scene setting for the shopping centre.

Attachment 9 is an early longer cutscene from the storyline of Ethan, one of the main characters. The cutscene consists of two main sections. The first part of the cutscene begins with a montage with upper and lower halves of the screen showing different pictures. At first, the upper half of the screen shows sun on blue clear sky while the lower half fades from black to a general view of a busy street on a sunny day – possibly a weekend – with a lot of families in the crowd. The upper half shifts to show a different view of a crowded plaza. The lower half shifts again, this time showing a close-up of Ethan, one of the main characters, walking with his family. Both halves of the screen focus on the family, showing shots of them and the surrounding crowd from different angles. The children are laughing and the adults seem relaxed and happy. The halves are merged for a while into one view displaying a busy shopping mall, zooming again on Ethan and his family. The merged view leaves some empty space on the right, where two smaller view ports appear after a while. These smaller windows again show the family from different angles. One of the children walks with Ethan, the other with his wife Grace and they are still enjoying themselves. The view ports now also show a brief shot of a clown selling balloons in the mall – this is the only shot after the very beginning that doesn't show Ethan or his family at all. The second part begins when the

view ports merge for the second time, this time filling the whole screen. Ethan is playing with one of his sons. Grace asks Ethan to watch the other son, Jason, while she visits a shoe store with the other son, Shaun. Ethan agrees and watches Grace enter the shop, not noticing that Jason is already walking out of his view.

The main functions of Attachment 9 are Transition, Scene Setting, Mood Setting and Foreshadowing. The Transition and Scene Setting functions are very straightforward here – the cutscene moves the point of view from Ethan's home to a complete new one and establishes the new setting – a mall on a day off. Mood Setting is also present, tightly attached to the Scene Setting function – the overall mood so far is light and relaxed, but also very lively and crowded and the constantly changing view ports simulate this through sensory overload. Foreshadowing manifests mainly through the shot of the clown, the meaning of which will become clear in the following scene when Jason heads off by himself to look at his balloons. Jason walking off also Foreshadows the following longer scene where Ethan loses sight of his son in the crowd. Player Reward doesn't seem to apply – the cutscene is visually impressive, but it does not take place after any difficult or crucial feat. The Rhythm and Pacing function, on the other hand, is supported by the longer moment of inactivity that allows the player to take in the visuals of the new environment before resuming control again. Surveillance (or a minor Hint) function might apply to the shot of the clown, since he will later be visited when Jason wants to buy a balloon.

If the cutscene was removed, the jump from the previous scene would be incomprehensible – Transition and Scene Setting certainly seem to serve a crucial role here. Gameplay would also be disturbed since the player wouldn't know Ethan was supposed to watch Jason, nor that Jason just walked off. The mood would certainly be chaotic, but with the lack the context it would probably feel irritating and alienating rather than immersive. With further changes, it would be possible to replace the cutscene with a shorter one or even with an interactive section of walking through the mall, but as it is it seems a fairly integral part of the game flow.

3.2.8 Gemini Rue (Wadjet Eye Games, 2011)

While Gemini Rue was published 2011, it is in many ways a very classic adventure game. The game features low-resolution 2D raster graphics. The game allows scaling up via graphic filters, but the source graphics remain at the same 320×200 resolution that many of the 90s adventure games used (including, for example, Gabriel Knight 1 and Monkey Island 1-2). The game was developed by a very small team (headed by Joshua Nuernberger who, according to the credits, handled all art, animation and programming with the exception of character portrait art, and nearly all of the writing and design). Considering the modest resources, the game contains a lot of locations and other graphics. Special or complex animations are rare, however, and there are no separately rendered cutscenes in the game. Still, there are frequent triggered in-engine/real-time events that qualify for analysis.



Picture 14: Delta-Six on the floor.

Attachment 10 is an example of the longer and more effect-intensive cutscenes in the game. The sequence is triggered when the first main character, after a longer task, successfully gets hold of an elusive contact and agrees on a meeting. The sequence signifies the point when the other main character Delta-Six becomes playable for the first time. The sequence consists of two parts. The first part begins with a bright flash that fades into a very dark room. In the room, two unseen figures have a short conversation about the man they had to carry into the room, Delta-Six. A bright door opens to the left, letting in a small square of light, and one of the speakers leaves the room, only distinguishable as a silhouette against the light. The second speaker lingers

in the room long enough to tell Delta-Six to wake up and promises to try and help him escape and to get his memory back. The second speaker then leaves as well. The second part begins after the speakers leave and consists of a non-interactive one-sided conversation. After the door closes, the room lights up and we are shown Delta-Six lying on the floor of a nearly featureless empty room. A taped message begins to introduce Delta-Six to a rehabilitation centre of some kind, but the message is cut short by a new speaker who calls himself the director. The director complains about Delta-Six's escape attempt and is angry for having had to wipe his memory again. The director then demands to know if the main character even understands what he is being told, worrying that his cognitive functions might have been affected by the memory wipe. The cutscene then ends without warning and control is returned to the player.

The main functions of Attachment 10 are Transition, Foreshadowing Scene Setting and Mood Setting. Transition is in a very central role, since the player's point of view moves to a new character for the first time after the uninteractive intro (that also featured Delta-Six). Foreshadowing is also strongly present – although Delta-Six has already been established in the intro, the director as well as the unknown ally are introduced for the first time. Scene setting involves slightly more hinted information about the rehabilitation centre and the director's plans for it, although a lot of questions are still left open. Finally, Mood setting is present throughout the scene that introduces a setting in which the main character is imprisoned in a dystopic environment with his memories removed.

If the cutscene was removed entirely, both the gameplay and story flow would be disturbed. The game would shift from one character to another without warning with the player having very little idea of where he is and might misinterpret the situation as well as the character's goals, and wouldn't necessarily even know that the character has lost his memories (although the intro referred to the memory wipe). This supports the idea that both Transition and Scene Setting are central functions here. Furthermore, the loss of the Foreshadowing would mean the player wouldn't know to expect someone inside the facility trying to help them. The dark room scene would be pointless to execute in an interactive way since the player character seems to be completely unresponsive, but there is no special basis for why the player could not be allowed to move in the room while the director speaks. Direction of the player's attention would seem a likely reason for this choice.

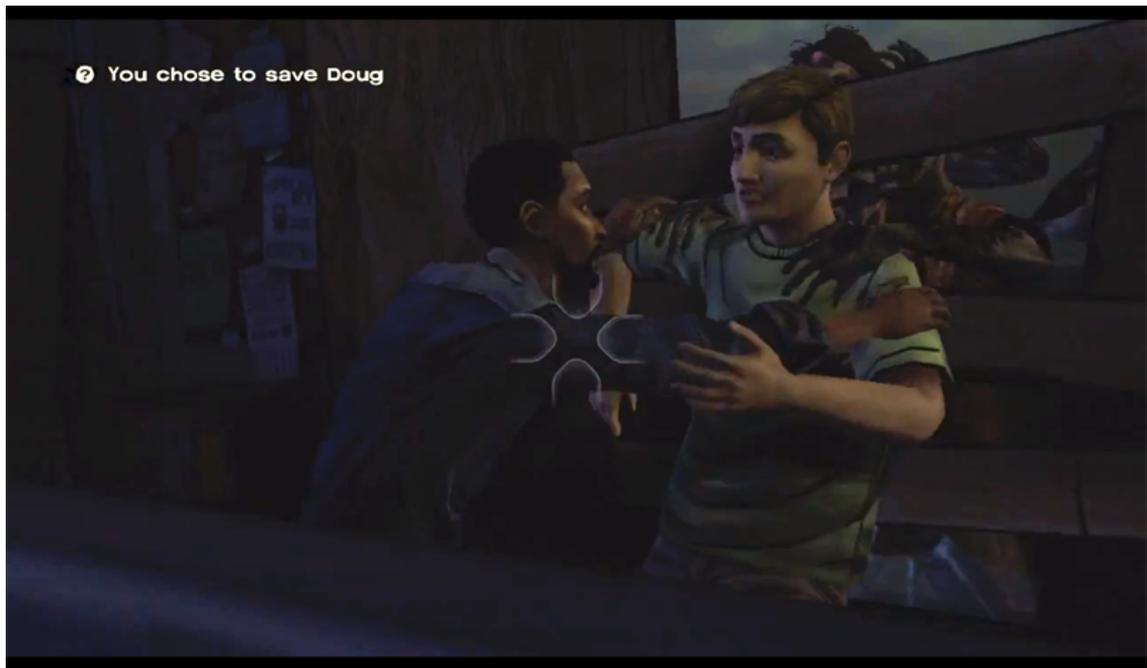
3.2.9 The Walking Dead (Telltale Games, 2012)

The Walking Dead is a zombie-themed adventure game with focus on storytelling and emotional involvement. The main character is a convict called Lee who rescues the little girl Clementine, who seems to have lost her parents, and continues to protect her as they join a group of other survivors. While all the graphics are rendered in real-time 3D, the game draws a lot of inspiration for its graphical look from the comic series the games are based on. All the graphics and cutscenes are also rendered in real-time graphics. The game contains a lot of cutscenes and dialogue along with some free exploration and simple puzzles.

There are two main categories of cutscenes in The Walking Dead. First, there are scripted events that result from player actions such as item or character interaction. They are usually fairly simple, but still more unique and complex than basic pick up -animations and other repeatable actions. Dialogue sequences are not considered scripted events due to their interactivity, but dialogue options often serve as a trigger for scripted events. Second, there are longer cutscenes that involve more complex animations and camera movement with less interactivity.

The combat sequences of the game also resemble cutscenes, but do not meet the non-interactivity requirement of the definition since the combat mechanics require simple but constant user input. Some longer individual animations in these sequences fill the requirements, however, and are grouped in the same category as other scripted events.

Attachment 11 is part of a longer somewhat cinematic sequence in which the main characters fend off a swarm of zombies attacking their hideout and escape to a new location. Unlike other examples, this cutscene includes minor interactivity. The player input is very limited, however (two actions on very obvious targets with no options to choose from), and the definition allows minimal interactivity so I will consider the scene one cutscene instead of three shorter scripted events.



Picture 15: The player chose to save Doug.

The cutscene begins after the player is forced to choose to save one of two members of the group – Doug and Carley are in equal danger. The beginning of the cutscene plays out a bit differently depending on the choice, but the rest is scripted. The first part displays the immediate result of the player choice. Whichever group member the player chose to help will be safe and grateful, but the other one will be devoured before anyone can do anything. In the second part, another group member Kenny runs in to tell everyone the car is waiting. A zombie catches Clementine's leg, but the main character kills the zombie (the first player interaction of the cutscene – target the zombie and hit action button) and Clementine escapes. As the player character tries to follow, Larry stops him, telling him he won't be coming with them and punches him so hard he falls over.

In the third part, the character is lying on the floor, dizzy, and the screen is blurred. Zombie growls are heard from nearby and the dark doorway seen up ahead. Kenny suddenly runs back in through the door, hits a nearby zombie with an axe and helps the main character up (the second player interaction – target Kenny's hand and press action button), promising not to let “somebody else get eaten today”. Kenny's next dialogue line varies depending on whether the player sided with him earlier (“Especially a good friend”) or if he sided with others (“Even if he is an asshole”). Kenny helps the main character through the door and the screen goes dark again. After a loading screen, the fourth and last part opens with a few close shots – first an illuminated motel sign, then a zombie corpse. As the camera pans, the shot shows Clementine watching the zombie

corpse get dragged to a pile further off. The camera zooms out as Clementine turns to walk back to the others, showing the other survivors camped in a motel yard. The camera reaches the main character, who is looking at a photograph of his family. Gunshots and screams from afar draw his attention, but there is nothing to be seen except a dark road illuminated by some streetlights. The main character turns back towards the others and the cutscene ends as the player regains full control.

Functions of this cutscene include Choice and Consequence, Resolution, Scene Setting, Mood Setting, Transition and Rhythm and Pacing. Both Choice and Consequence and Resolution apply to the first part, which shows the immediate results of a player choice. Resolution also applies to saving Clementine in the second part, although player input is very simple. It is still possible to fail this interaction, though, which leads to a game over screen. Mood Setting is central throughout the scene, starting out with a chaotic and dangerous escape during the first three parts and ending in a calmer yet somewhat melancholic and foreboding fashion in the fourth one. Finally, Transition, Scene and Mood Setting as well as Rhythm and Pacing all apply to the fourth part, where the player is introduced to a new area to explore.

If the cutscene was removed as a whole, the warp between scenes would not only be noticeable but would completely break the game flow. The cutscene, through very minimal interaction, presents and wraps up the chaotic situation and introduces the changes to the game's status quo – one character dies, Larry betrays the main character and Kenny saves him. Therefore, the Transition function appears to be in a very central role. Another function that would cause excessive problems if omitted is Rhythm and Pacing (the jump from intensive action to calm and static environment would be unintended). Furthermore, Choice and Consequence and Resolution would have to be handled somehow or the previous player decision would lack any context or observable result. The lost Scene and Mood Setting functions would probably make the game feel less engaging and immersive, but wouldn't affect gameplay or understandability as much as the other functions.

In this cutscene and in *The Walking Dead* in general, a lot of storytelling takes place within similar semi-interactive scenes, broken only by some key decisions and occasional scenes with more freedom, and without them the game story would mostly be almost impossible to follow. It is notable that, as seen in this case, Transition is a

very generic category that covers anything from change of location to characters dying or betraying each other during a cutscene. In a more in-depth study, it would definitely be useful to divide these storytelling-intensive functions into a new, more accurate and comprehensive set of categories, especially when handling games where major plot progress takes place during cutscenes. The scene could be rewritten to include an interactive fight with Larry (adding consequence options here could even better the gaming experience) and some more button pressing during the clearing of the corpses, but it would change the tone of the scene and hinder any camera movement, which is used very expressively in almost all of the cutscenes in the game.

3.2.10 Journey (Thatgamecompany, 2012)

Journey's art style is very original and the visuals vary surprisingly much considering the fact that the game is set in a desert environment full of sand. The style is stylized rather than realistic, although the sand handles in a very realistic fashion. All of the cutscenes are real-time 3D and use the same overall graphics style as the rest of the game, although half of the cutscenes are presented as 2D graphics/animations somehow projected or carved to a flat 3D surface. There are two main categories of cutscenes in the game. First, the most common type of cutscene is scripted events. Like in many other games, these are most commonly triggered by player interactions (activating cloth "switches" in the gameworld) or by entering a new area. For these cutscenes, character and camera control is temporarily disabled and the camera focuses on the event that takes place. These events are often simple: doors opening, bridges appearing or other similar changes in the environment that are important to player's progress. Second, less frequent but still steadily occurring throughout the game, are the visions that the main character appears to get when activating certain statues in the game. They usually start with the character facing a white robed figure that glows white light, then proceed to display an animated glowing mural that gradually appears on a wall surface. The same mural is continued in each of these cutscenes. After this, a cutscene of the first category is often displayed to show an opening door or similar new passage.



Picture 16: Making the cloth of light.

Attachment 12 is one of the longer, proper cutscenes in Journey. The cutscene consists of three parts. The first part begins with the player character facing a white-robed figure glowing with a white light, with the mountain shining in the background. In the second part, the same mountain is shown as part of a wall mural of some kind. Bright light erupts from the mountain into the sky and over the landscape to the right. Where the light spreads, birds appear in the sky and plants grow from the ground. The white-robed figures that also appear may also be a product of the mountain's light. Another group of white-robed figures further to the right seems to create a strip of red fabric out of the light. The fabric stretches towards the sky and the view fades. The third part of the cutscene returns the camera to ordinary gameplay angle and again shows the room where the cutscene was triggered. The gate leading forward opens and the cutscene ends.

The most central function of Attachment 12 is storytelling. Exceptionally, the cutscenes are practically the only exposition device in the game – there is no dialogue or narration in the game and apart from some repeating elements and the cutscene locations even the landscape is barren and empty of clearly definable meaning. In this respect the cutscenes shoulder a joint function that includes features of Foreshadowing, Scene Setting, Mood Setting and, to an extent, Rhythm and Pacing. The cutscenes also serve as Player Reward to an extent, although the game is not strictly goal oriented. Finally, the third part of the cutscene also seems to have a Transition function in the form of an

opening gate. The presence of this part in the cutscene also serves as a minor Hint about where to proceed next, although the now open exit would be hard to miss even without the cutscene.

If the cutscene as a whole was cut out, the immediate result would be that the gate opening animation would be missing and the gate would just warp open upon using the trigger – this supports the argument that there is a Transition function here. In more general terms, the missing cutscene would strip the game of a central storytelling element – there would be less to learn about the game world or the distant goal at the mountain (Foreshadowing, Scene/Mood Setting) and no meditative pauses to the constant movement and exploration in the game (Rhythm and Pacing). Difficulty or gameplay mechanics wouldn't be affected. This kind of a scene would be difficult, though not impossible, to tell as efficiently without stripping the player of control, but the most evident thing lost would be the concrete pause from the running.

3.3. Analysis overview and results

In this section I will go through the data collected from the analysis to see what conclusions can be drawn and how the results can be applied in my case study.

Game/Funct	Monkey Island 1	Monkey Island 2	Gabriel Knight 1	Gabriel Knight 2	Myst	Grim Fandango	The Longest Journey	Machinarium	Heavy Rain	Gemini Rue	The Walking Dead	Journey	Tot.
Surveillance									(X)				1
Hint		(X)	X		X		X	X					5
Foreshadowing	X	(X)	X		X	X	X		X	X		X	9
Transition						X	X	X	X	X	X	X	7
Scene Setting	X		X	X				X	X	X	X	X	8
Mood Setting	X	X	X	X	X	X	X		X	X	X	X	11
Choice/Conseq											X		1
Resolution		X		X	X						X		4
Rhythm/Pacing									X		X	X	3
Player Reward	X	X		X	X		X					X	6

Table 2. The occurrences of various cutscene functions in the source material.

The top three most common functions were Mood Setting, Foreshadowing and Scene Setting, followed closely by Transition. All of these are directly connected to storytelling, and in a more extensive analysis it would have been useful to craft more subcategories for storytelling elements alone. While the source material was limited and inevitably biased since I chose fairly comparable longer scenes from each, the results seem to indicate that these functions form a core tool set of most adventure games, classic and modern alike. These functions will be paid special attention to in the case study as well.

Player Reward and Hint were found in roughly half of the games and Resolution in third of them. Out of these, Player Reward was the most abstract, since the reward value is largely dependent of the player's experience. A study on player reactions to various cutscenes could help understand this better. Furthermore, many of the games probably included cutscenes with some level of Player Reward function even if the cutscenes selected for this thesis did not explicitly show it. Hint, on the other hand, may be even more common in shorter scripted events than in full-length cutscenes. Furthermore, using Hints too exclusively within skippable cutscenes could result in problems should the player opt to skip them, and care should be taken to relay the same information elsewhere in the game as well. Resolution, again, appeared to be very common in the shorter cutscenes while the longer cutscenes analysed here featured it less often.

Rhythm and Pacing was used explicitly in only fourth of the cutscenes. While more examples might have been found in closer analysis, in its current form it applies best to fairly action-oriented games. In classic adventure games the pace of problem solving is rarely limited by time and gameplay pace may vary a lot from player to another. A separate, more defined category for storytelling-related pacing could have yielded more results.

Surveillance and Choice and Consequence were the rarest with only one occurrence in the source material. For Surveillance, the category may have been poorly formatted for adventure games to begin with, although it is also possible that a wider source material would have revealed more examples. While Choice and Consequence was also rare, both *The Walking Dead* and *Heavy Rain* are known for using this function a lot, and both have received a lot of critical acclaim for it. Many old adventure games were fairly

linear, but these more recent games have shown that branching storylines are also feasible and can be effective in engaging the players.

4 CASE STUDY: GIRL WHO WAS RAIN

In this section I will apply my research to practice in a game production I am currently working on. First, I will give background information on the production. I will then give more information about the game itself to provide context and proceed to draft cutscene production plans for the first three chapters of the game. Finally, I will present my practical thesis project, the first major cutscene of the game, and describe its functions.

4.1. Game Production

Girl Who Was Rain is an upcoming indie graphic adventure game for PC that I am doing the visuals for. The game production originally started off as a school project work for TAMK in 2010-2011. The game was to tell the first half of a longer story arc, including first four of a total of seven chapters. Pre-production started in December 2010 with core documentation, production plan and sketches for key characters and locations. Full production stage kicked off in April 2011 when all plans, scripts and main puzzle designs were complete. The original planned release date was in June 2011, but the date was pushed back to late 2011 largely due to technical reasons. The original platform of the game was Flash, being the programmer's primary platform, but it was already causing performance problems with a project of this scale. Furthermore, migration to new version of Flash caused issues that severely hindered the progress. The production was put on hold in September 2011 as the programmer withdrew from the project for both technical and personal reasons. The TAMK project concluded at this point as well. Most of the art and scripts for the game were finished by this point and a project report was submitted to TAMK about the progress and fulfilled learning goals.

Production resumed in 2012 as a new project, when the game's writer took it upon himself to program the game from scratch in C++/DirectX after considering other platforms that did not provide the needed functionality. This platform has proved much more suited to support the game, and the first playable demo release is slated for summer 2013.

4.2.About the game

4.2.1 Setting & Backstory

The game is set in a low-fantasy world inhabited by humans and intelligent dragons who by necessity compete of the same resources and living space. The player character is a girl whose whole village was destroyed by dragons when she was very young. The mate of the dragon ruler, however, took pity of the child and wanted to save her as well as shelter her from the loss of his people. The dragons rebuilt the village and populated it with controllable puppets to create the illusion that nothing has changed. The “puppet village” is distant and uninteresting enough not to attract visitors.

4.2.2 Story synopsis

The story follows the girl as she lives with the dragons, gradually begins to suspect something strange in the world around her, discovers the truth (after making contact to other humans after sneaking aboard the trade ship) and, finally, confronts the dragons about his past.

4.2.3 Story structure

The complete story is divided into 7 chapters, the first game will feature the first four of them:

1. Childhood prologue: The girl is in the puppet-populated village and thinks everything is all right. This chapter is graphically somewhat naivistic.
- 2: Doubt: The girl begins to wonder if there's something amiss in her village. The dragons then abandon the village and take the girl to their island lair.
- 3: Escape: The girl gathers supplies, sneaks out of the lair, boards a small living vessel and leaves the island on it, heading for the "puppet village".
- 4: Revelation: The girl arrives at the village she grew up in, reaching conclusions about true nature of things (finding the village empty and discovering the discarded puppets stacked in a storage room). She falsely assumes that the villagers have been turned into

puppets by the wizard. She confronts the wizard, who tries to force the girl with him to the nest.

5. First encounter: The girl wakes up at the shore of a small frontier island village populated with real humans. She persuades a local priest/inquisitor to lead an investigation party on the island.

6: Return: The girl returns to the “puppet village”, but there are no puppets this time – the dragons have kidnapped real humans from elsewhere to act like they were the real inhabitants and nothing was wrong after all. The girl finally finds out the truth, but the villagers seem content living in the village – they are former slaves of the Empire. The priest reveals his plan to hunt the dragons and captures the girl by force. The girl is knocked out.

7: Confrontation: The girl wakes up in the Nest. The girl makes his way through the Nest to the throne room, where a final confrontation is in progress. The girl helps the dragon Queen release a necklace that sapped her powers. The queen, rejuvenated, intervenes and ends the conflict. She banishes the humans, reverts the dragon king into an egg and releases the dragon servants from their slavery. The girl sets off on a journey to find out more about her people and herself.

4.2.4 Gameplay

In terms of gameplay, the game is a classic point & click adventure game. The player controls the character mainly by mouse and interacts with the environment by clicking various hot spots on the screen. GUI buttons and shortcuts let the player change the action mode of the cursor, cycling between TAKE, LOOK, INTERACT and WALK. The game features an option-based dialogue system as well as an inventory system for handling and inspecting carried items, both also operated by mouse.

4.3.Cutscene plans for the first three chapters

4.3.1 Chapter 1

The chapter takes place in the girl's early childhood. She is old enough to run around and do some things independently (perhaps around 3+ years), but has a very naivistic view of things. She doesn't remember her real parents – she was too young when the village burned. She has a slight fear of fire, but not a severe case, at least as long as it's under control.

The chapter is simple and tutorial-like and doesn't feature challenging puzzles. The chapter is also short and non-linear – there are a number of possible interactions in the chapter, and the ending is triggered when five individual actions have been completed.

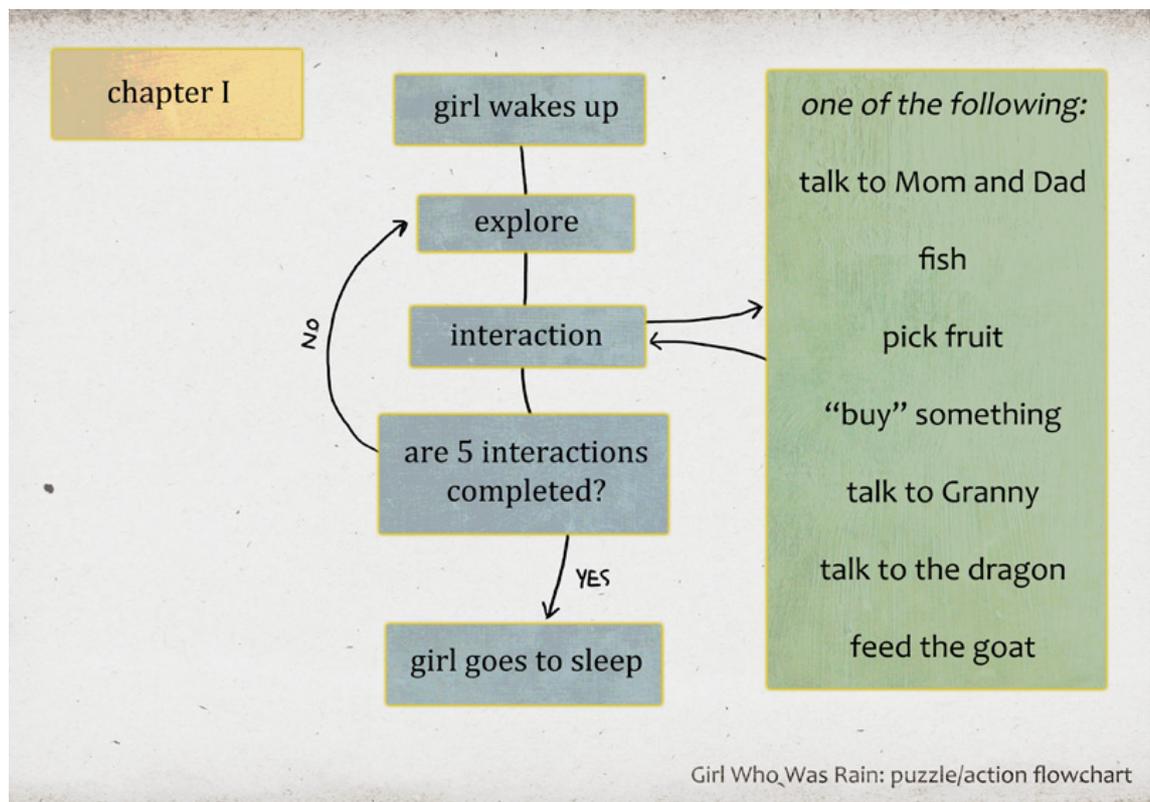


Table 3: Chapter 1 action flowchart.

The most obvious spots for cutscenes here would be the beginning (girl wakes up) and the end (girl goes to asleep). Both would serve as Transition scenes, first entering the gameworld for the first time and then moving on to the second chapter. These could well be either pre-rendered 2D animation or take place within the game engine using special animations. Especially the beginning animation could also provide Scene and Mood Setting for the chapter.

Secondly, it would also be possible to attach small scripted event scenes to the various interactions during the day, although these probably shouldn't be too complex.

Finally, it would be feasible to make some sort of environmental cutscenes whenever time passes (i.e. after each interaction is done) from morning towards night. This would offer the player a minor Player Reward as well as work as a smooth gradual Transition.

4.3.2 Chapter 2

The second chapter takes place a few years after Chapter 1. The girl is a bit older now (perhaps around 6+ years) and is getting frustrated with the suddenly apparent limitations of her surroundings. The girl has grown increasingly curious and active and begins to wonder more about the things around her. Since the puppets don't have real intelligence and only give the same stock responses, things begin to appear exceedingly uncanny in the village. The girl explores the surroundings, questions the villagers and finally confronts the dragon, who is the only one in the village who responds in a truly intelligent manner. Failing to explain her way out, the dragon decides it's safer to take the girl away from the puppet village and to the Nest, which will trigger the next chapter. At this point the girl will view this as an adventure, expecting to return home soon.

The second chapter mirrors the basic setting of the first chapter with a slight twist. Most of the previous interactions are still available along with a few new ones, and all of them now contain weird details and inconsistencies. Whenever the girl spots such a detail, a new conversation option is unlocked with the dragon. When the girl has asked about a certain amount of them, the dragon decides to take her away from the village to the Nest and the chapter ends.

Like in the previous chapter, the beginning of the chapter could use a cutscene to handle the Transition and help with Scene and Mood Setting. While the location has remained the same, the mood has changed somewhat and the graphical style will reflect that too, to some extent. The starting (wake up) scene could be handled with a scene that would be almost the same as the previous one, but with a few key differences to highlight the changes.

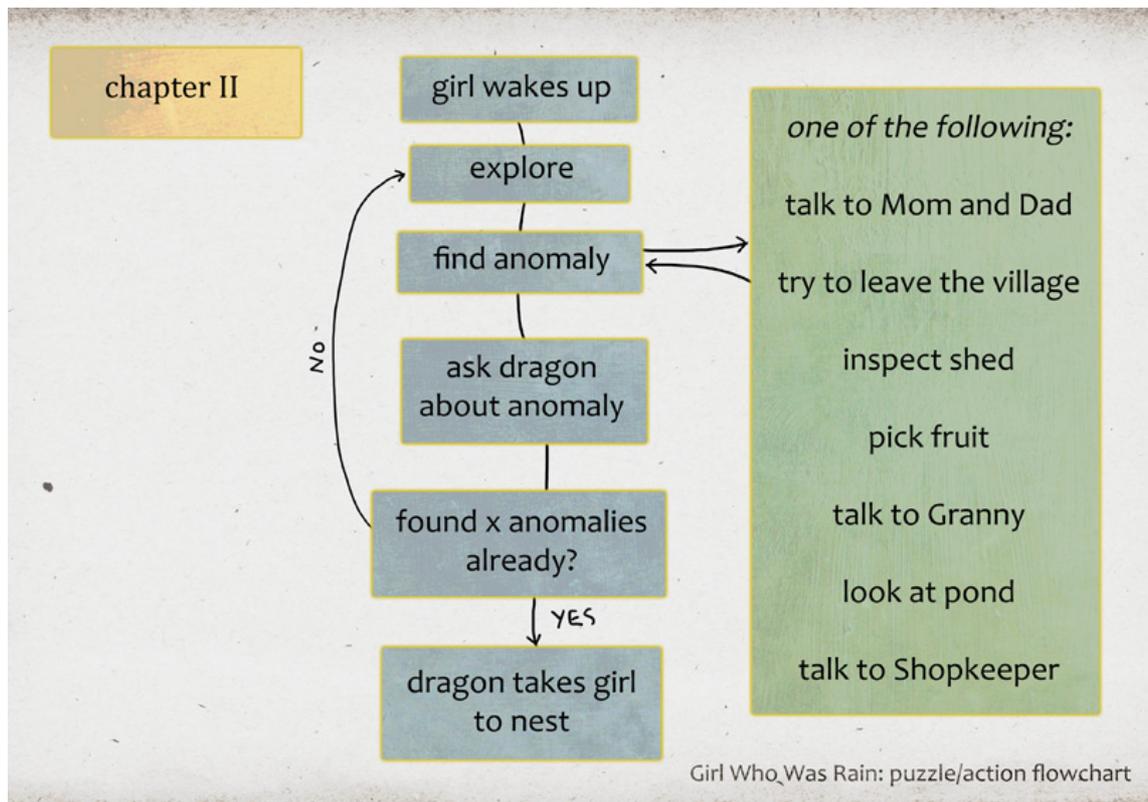


Table 4: Chapter 2 action flowchart.

The end of the chapter also needs a Transition, since the location will change completely between chapters. The next chapter already begins with a graphically intensive cutscene, however, so the cutscene shown here shouldn't be long or consume a lot of resources.

4.3.3 Chapter 3

The chapter begins several years after chapter 2 in the island nest of the dragons. A nurse dragon is just finishing a story about a girl hero. The story reminds the girl of her home (actually the puppet island) and gives her an incentive to set out on an adventure to find her home. The story book will serve as a guide for her adventure.

The first challenge the girl faces is to make it outside the nursery where she is guarded by a sleepy old dragon. The girl needs to make the dragon fall to sleep by warming up some milk for the dragon, covering her with a blanket and finally reading a boring story to her. When the dragon is asleep, the girl is free to explore the rest of the nest. There

are now three other things that she needs before she is ready to set off on her adventure: get a magical map, get food and water for the journey and to find a ship to sail on. Each of these goals features a separate sub-quest and the three tasks can be solved side-by-side or one at a time at player's discretion. Once all of these tasks are complete, interacting with the ship will end the chapter and begin the girl's journey back to the Puppet Island.

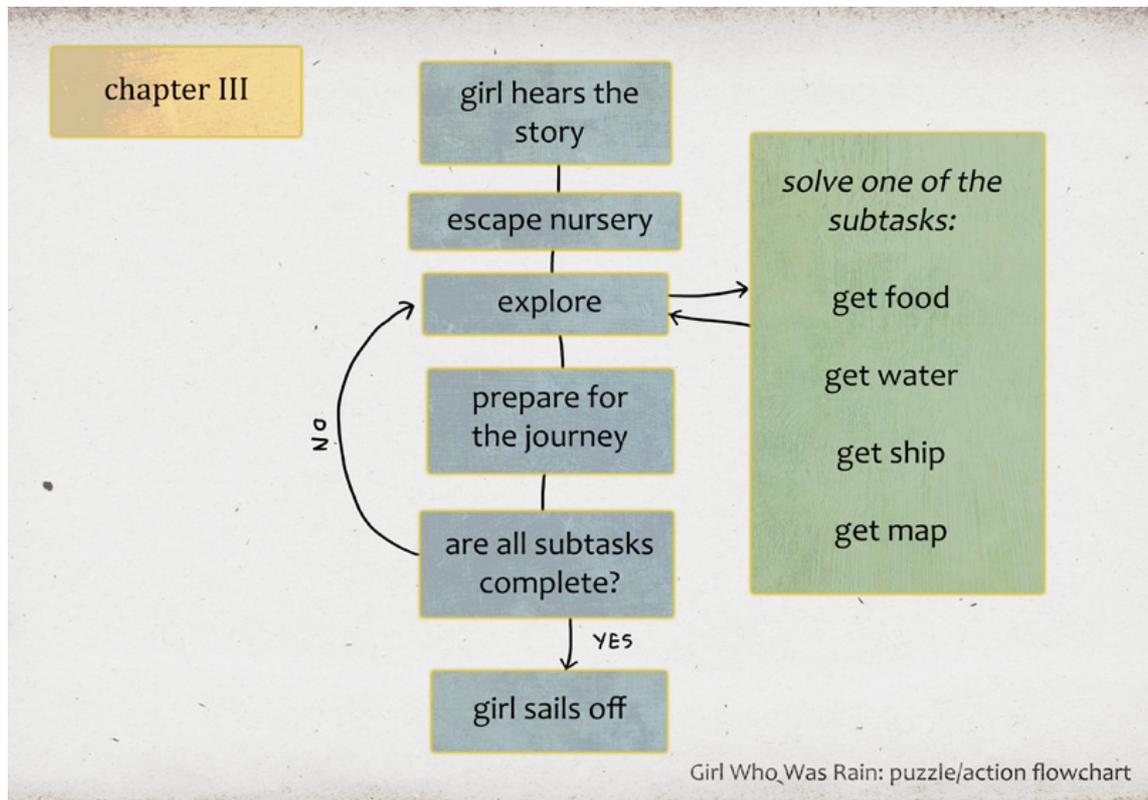


Table 5: Chapter 3 action flowchart.

The most important cutscene locations of the chapter are again at the beginning and the end. The beginning cutscene is already defined and described in more detail in section 4.4. The ending, however, would benefit from an animated sequence of the girl sailing off the island in her ship to serve mainly as Transition and Mood Setting, but also as Player Reward for a successfully completed chapter. This animation will probably be short, but should be visually pleasant nonetheless. The animation might also Foreshadow some future events with little cues such as the Puppet Island looming in the horizon.

Third, many of the individual actions (e.g. fishing a key from a bath pool) should have minor scripted sequences with unique or semi-unique animations to serve the Resolution function and make sure the player knows what happened whenever an action is successful.

Finally, additional scripted events triggering at various locations when the player enters them could be used to provide Hints and support Scene and Mood Setting.

Secondary key locations for cutscenes will be along and at the end of each sub-task. For example the map is found at the end of a sub-task at the Dragon King's treasury, and discovering the map will trigger a sequence containing an overheard discussion that Foreshadows some future events. The cutscene also serves as a Hint, since the light from a ceiling window open during the cutscene falls on the map. The other locations will feature similar scenes.

4.4. Chapter 3: The first cutscene

Along with the written thesis and case study, my thesis includes an animation work sample of the first long cutscene in the game. The cutscene is a fully animated and pre-rendered 2D sequence and the most resource-intensive cutscene of the first four chapters. (Attachment 13)

The cutscene is the starting sequence of Chapter 3 and, in essence, the end of the prologue section of the game. It is a story that the nurse dragon tells the girl and that is based on the girl's home island. The cutscene is triggered as soon as the ending animation of Chapter 2 finishes.



Picture 17: A mock-up of a frame of the Girl Who Was Rain cutscene.

The cutscene begins like a fairytale, describing a beautiful island with no name where a girl called Rain lives in a fishing village. She is happy and content on her island until she one day hears stories of faraway lands from an old fisherman. She tells everyone she wants to go see the world. Her family members try to stop her, but she is very keen on leaving. Her father tells her that their small fishing boats cannot carry her over the dangerous seas, so she goes to the seashore and asks the sea for a ship. A ship appears from the waves right away. Her mother, in turn, tells her there is nothing to eat out there, so she goes to a tree and asks for fruit. The tree lowers its branches and offers her fruit, which she puts to her bag. Her grandmother tells her seawater is dangerous to drink, so she goes to a well and asks for water, and her waterskin is instantly filled with clear water. Finally, her brother asks how she will find back home. Rain laughs and tells him she will definitely find her way. The cutscene ends as the girl sails off to find adventure.

The main functions of the cutscene are Foreshadowing, Mood and Scene Setting, Hint and Player Reward. The Foreshadowing and Hint functions are very central – Rain's island and her journey are largely mirrored in the girl's quest to find her home – to set for the journey she must complete the same steps as Rain did, with the addition of the map. Furthermore, the story in the cutscene will later be brought to completion with a second part that describes Rain's travels and her fate – she cannot find home after all, for she has traded away everything that could lead her back. Mood and Scene Setting are also very central. Details that serve these functions involve the adventurous mood of this first half of the story, the theme of setting for adventure and the presentation of

some – but not all – characters and family members in the story as dragons. Finally, the long and detailed cutscene is a Player Reward for completing the two first chapters of the game and thus starting the real journey.

5 CONCLUSION

Originally my plan was to research cutscenes in games of various genres on a very general level, but due to the limited time and scope of the final thesis, I found it would have left the analysis very superficial and not very useful for my practical work. Instead, I decided to limit my research to adventure games, which was also expected to yield more applicable results.

For each analysed adventure game, I first analysed the graphical style as well as the different types of cutscenes found in the game. Then I proceeded to analyse an individual longer cutscene example from the game in more detail. For the detailed analysis, I first explained the content of the cutscene, then analysed the functions it has in the context of the game and finally studied how the game would change if it would be removed with no further changes made. With some cutscenes I briefly analysed how to replace the removed cutscenes with interactive sequences.

The results of the analysis show that many central functions were common within the genre, but there was also some variation. Based on my results, the top four most common functions were Mood Setting, Foreshadowing, Scene Setting and Transition. Player Reward and Hint were found in roughly half of the games and Resolution in a third of them. Rhythm and Pacing was used explicitly in only a fourth of the cutscenes. Surveillance and Choice and Consequence were the rarest with only one occurrence in the source material. While Choice and Consequence proved to be the least common genre yielding only one example (in *Walking Dead*), further study would have revealed at least *Heavy Rain* to contain examples of this function. This brings to light the major drawback of the current research methods – with the current source material it was only possible to handle one cutscene from every game in detail, which does not give a complete picture. Taking this bias into account, however, the results can be useful for determining some basic patterns of cutscene use in notable adventure games.

In my case study part I proceeded to draft a plan for potential cutscene locations and types in the first three chapters of our own adventure game, *Girl Who Was Rain*. I also presented a functional analysis of the first major cutscene of the game that will serve as the practical part of my thesis.

In conclusion, the scope of my research could have been even tighter, with less games and more cutscenes from each, but the results appeared useful and I had no trouble using them as a basis for animation planning for a new game. For further studies, I suggest more specific and in-depth studies on the functions of cutscenes. Research on further topics such as how cutscenes vary within a specific game, what kind of common features can be seen within popular games of same genre or how different types of players or players of different genres experience and relate to cutscenes could provide useful data for game design purposes.

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ATTACHMENTS

Attachment 1. The Secret of Monkey Island

<http://www.youtube.com/watch?v=9moRy6WPRCE>

Attachment 2. Monkey Island 2: LeChuck's Revenge

<http://www.youtube.com/watch?v=bPploEwxGJs>

Attachment 3. Gabriel Knight: Sins of the Fathers

<http://www.youtube.com/watch?v=hSQsXp1OWdc>

Attachment 4. The Beast Within: A Gabriel Knight Mystery

<http://www.youtube.com/watch?v=Gd9rUpMjuOQ>

Attachment 5. Myst

http://youtu.be/_TCPHpp8Nxk (Accessed 11.5.2013)

Attachment 6. Grim Fandango

http://youtu.be/eds_bOH0fng?t=38m15s (38:15–39:38) (Accessed 12.5.2013)

Attachment 7. The Longest Journey

<http://youtu.be/UqwkLihRsQQ?t=1h50m50s> (Accessed 12.5.2013)

Attachment 8. Machinarium

<http://www.youtube.com/watch?v=Jk2d2NfXtVQ>

Attachment 9. Heavy Rain

<http://youtu.be/bK9rZc6Kv6A?t=23m16s> (Accessed 12.5.2013)

Attachment 10. Gemini Rue

<http://www.youtube.com/watch?v=DT7dNqPsLhA>

Attachment 11. The Walking Dead

<http://youtu.be/-KWMcM1zsgM?t=1h53m33s> (Accessed 12.5.2013)

Attachment 12. Journey

<http://youtu.be/bkL94nKSd2M?t=6m44s> (until 0:08:00) (Accessed 8.5.2013)

Attachment 13. Girl Who Was Rain

<http://vimeo.com/naite/girlwhowasrain> (Work in progress on 16.5. 2013)