Narrative Patterns in Video Games

Narrative Mechanics and Its Rules and Rule Sets

Beat Suter

Storytelling in video games can take very different forms and encompass a variety of values. Whether as a small backstory for the game world, as detailed life stories of individual characters or as the dominant narrative of a complex epic, storytelling always has to interlock with game mechanics and the game world in such a way that the player can easily cope with logical interactions. Since a game is a framework of game rules, storytelling does not have a superordinate role, but acts as a game mechanic and is therefore integrated into a set of rules (Suter/Kocher/Bauer 2018: 31). In a role-playing epic (*Final Fantasy* series) it can be a principal macro mechanism of the game, in a platformer (*Super Mario* series) it can be one mechanism among many, often formulaically rendered. And in a puzzle game, it may merely serve as an accessory or a decorative frame (*Gunpey* 1999, *Candy Crush Saga* 2012). The most exciting game stories are probably those that, rather than just laying out a narrative, rely more on hints and have to be discovered or playfully and actively worked out by the player (*Inside* 2016, *The Last Guardian* 2016).

But even in a game with a dominant narrative storytelling is often accompanied by a second macro mechanic such as exploration or solving puzzles. These second-tier dominant mechanics then serve as the key to building sets of supporting micro mechanics. Consequently, the narrative is often used as a targeted game mechanism. Progress in the form of solving a puzzle or finding a new space leads to narrative progress, adds a scene to the story, reveals more of a character's personality and takes the story one step further. For example: In *The Last Guardian* (2016), the narrative is built gradually through the relationship between the two characters and their exploration of the world in which they are

trapped. The boy and the beast develop minor skills that allow them to advance into the next room and open up new realms both spatially and narratively.

Many developers, however, do not (only) identify storytelling as a game mechanic, but rather as a method of structuring games into storylines that allow them to organize the flow of a game. In addition, they see storytelling as a way of conveying meaning (Fabricatore 2018: 86). But meaning can also be conveyed through motivating game mechanics, as evidenced by so-called emergent storytelling, which has become important in many newer games. Wolfgang Walk puts it clearly: "Game and story are not separate aesthetic categories." (Letsch 2018) Ludic and narrative elements should not simply be thought of separately or as one after the other, but should be planned in a networked way with the best possible interaction. Our starting point (for this chapter) therefore is narration as a networked interaction of game and story, in conjunction with the question of how to develop stories for video games that can be experienced by the players.

HOW DO YOU DEVELOP STORIES FOR VIDEO GAMES?

Should you proceed in a similar way as in films or novels? Should you follow the patterns of television series? Should you base your approach on animes? Is it preferable to simply write down the stories or rather to draw and create a rudimentary storyboard? How are emotions conveyed in a way that can be (actively) experienced? And how do you start the process – by designing a character or a setting? These questions can't be answered easily, because stories in games can be set up in many different ways. Therefore, it is important to study the functions and structures of these narrative units more closely in relation to video games. The range is enormous, and the approaches could not be more different. We will focus on a few important patterns and use examples to find out how such stories are developed and how they are interwoven with the mechanics.

MOVEMENT AND CHARACTER

First and foremost, we need to take a closer look at the set of rules pertaining to mechanics and narration. Our main focus is on movement and character, which means that we will try to define the behaviors of objects and their interactions. How does the object (the avatar) move and what happens when it encounters other objects, boundaries, etc.? The design process starts with the development of basic mechanics as already described in the introduction of *Games and Rules*

(Suter/Kocher/Bauer 2018: 7). At the same time, however, we need to develop a narrative mechanic for our game, which is generally an outline of what may happen to our avatar during the time of play. Many game designers carry out this step rather unconsciously at first. The approach of using a backstory as a framework for the game mechanics probably demonstrates this most clearly.

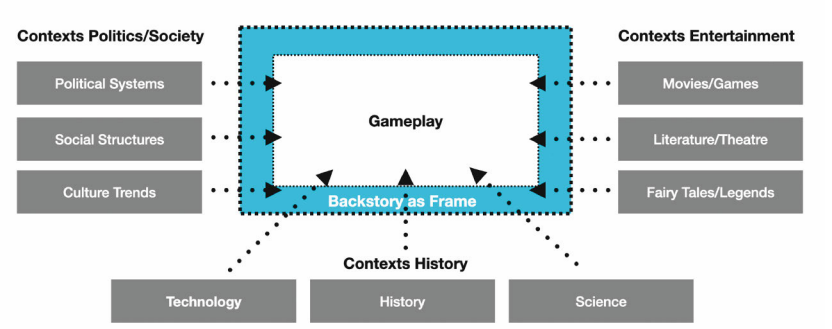
BACKSTORY AS A FRAME

One of the most famous examples of this approach is the arcade game *Space Invaders* (1978). Mechanically it is about shooting pixel sprites which advance threateningly from above and can also shoot. The narrative revolves around aliens threatening Earth and having to be fended off by protected anti-aircraft guns. The formula "Save the World" was transferred into the contemporary context of space travel and thus transformed into a very comprehensible narrative mechanic of an attack from space, which was immediately recognizable in the era of NASA's Apollo space program and contemporary popular entertainment like the TV series Star Trek and the first Star Wars movie. The contextual narrative of *Space Invaders* functions as a social framework that paves the way for understanding the events in the game. It provides "guided doings" in "a serial management of consequentiality" (Goffman 1974: 22f.). According to Goffman, a social framework, usually in the form of the presentation of information, is a communicative aid which influences the way data is interpreted, processed and communicated and makes it memorable. In games like *Space Invaders*, the narrative frame takes over the presentation part and the framed information becomes the interactive playground for the player's actions and decisions.

While the backstory of *Pac-Man* (1980) seems even more rudimentary – Pizza Pac-man has to eat his way through the labyrinth (reminiscent of pinball machine patterns) and is haunted by ghosts (including a short role reversal) – the arcade game *Donkey Kong* (1981) develops in its narrative frame a dichotomy between the giant ape King Kong and the insignificant plumber Mario, thus making the fairy tale formula "Save the Princess!" usable in an everyday superhero setting. This means that a well-known fairy tale formula is being transformed in a different context and narratively disrupted with a slight nod to comedy. Instead of striving for a game with complexity and new story elements, designer Shigero Myamoto chooses the iteration of a known process. He constructs a clear and simple narrative mechanic that subordinates itself to the mechanics and interactions of the gameplay. He reduces the plot to the rescue of the princess from the urban scaffolding and makes this his frame and the goal of the

game, adding short cutscenes at the beginning and end of each level as narrative accompaniment (2-5 seconds) and leaving the player to concentrate on the iterative gameplay.

Figure 1: The backstory functions as a frame for the gameplay: borders are permeable and the contexts of society, history and entertainment influence both gameplay and backstory and allow them to link up well.



Source: Beat Suter

BACK(GROUND) STORY AS SUPPLEMENT

The backstories in the games above are well interwoven, but there are also often those, especially in puzzle games, which are probably best described as background stories. This is the case when a game designer creates a puzzle game first and looks for a story afterwards. The designer devises a background story for the fictional world of the puzzle; thus, puzzle and story become separate entities. Or the designer supplements characters with background stories; this is often done in fighting games and sometimes in role play games. Popular puzzle games that work with (separate) background stories are for example *Puyo Pop Fever* (2003) and *Gunpey* (1999). Gameplay and plot are separate units in those games, but nevertheless a plot is integrated as a progression and can only be unfurled by completing individual puzzle levels. *Puyo Pop Fever* creates a minimal narrative scenario in which the teacher Ms. Accord has lost her flying stick (magic wand). Two of the students of the magic school go on a search. The plot is told in slightly animated pictures with the cartoon characters and text represented by subtitles and voice-over. After each level, the plot is continued in another picture-text cutscene in the style of a visual novel – right to the end. The puzzle levels, how-

ever, take place in a container with two playing fields of 6x12 units, into which colorful blobs fall. These have to be arranged in the same manner as in *Tetris* (1989). The player has to defeat another player or an AI. Narrative scenes and puzzle levels are completely separated from each other, the only connection is the player character (Amitie or Raffine) who occupies one of the two containers.

Puzzle and narrative are even more blatantly separated in the game *Gunpey*. The gameplay consists of arranging fragments of lines to create a left to right connection. The playing field is made up of 5x10 cells. There are different modes for players to choose. In Story Mode they play against the CPU and make progress in the story by winning. The story revolves around a frog named Vincent who saves a cat called Sherry from a group of outlaws. It is set in an imaginary Wild West, but in the original game version, this is only shown in a short intro and at the end of the game – and barely so with some slightly animated pictures. The combination of gameplay and plot doesn't seem to follow any logic, except that it could perhaps be conceivable that by connecting the lines a path may be opened for the character. Because it is so unimportant, the background story could easily be regarded as a decorative element, one that helped introduce the game to the market. But nevertheless, in its light-hearted way, this game presents itself as a crazy funny product and may be classified as an interesting example of a Mukokuseki (cf. Kato/Bauer: 113-150). In later versions of *Gunpey* (2006), single animated scenes take place in the actual (visual) background of the puzzle while you are playing. Thus, the story becomes a literal "background story".

While the selection of characters in *Gunpey* are backed up by a comic-style name and a drawn portrait, Beat 'em Ups, for example, develop more detailed background stories for the characters you can fight with. *Tekken* (1994), *Street Fighter* (1987) etc. offer CVs for the fighters and opponents to give the player more information about the game world. This may not interest every player, but it makes the game world more credible. *Tekken's* background story is a violent conflict in the Mishima family, which provides the basis for the Iron Fist tournament organized by the Mishima Corporation (Zaibatsu). Whoever wins the tournament will also control the company. The player can choose from numerous characters. Each of these characters has a short biography to narratively embed them into the fictional world and link them with other characters.

Traditionally, games have usually been designed to enliven the physicality of their characters. Some older characters, for example, follow dominant movement patterns: Super Mario (originally Jumpman) jumps, Solid Snake sneaks, Lara Croft climbs. The personalities and background stories of these characters are side issues or flimsy marketing exercises. The characters lack substance. Their

motivations are rather obscure. However, this mechanism of narrative restraint or reduction does not have a negative effect on the player. On the contrary: they identify with their avatar through movement patterns and are provided with fictitious void spaces which they can fill with their own interpretations – which may well be self-referential. As soon as a character is predetermined down to the last detail, the player has less opportunity to fully identify with the avatar.

ENVIRONMENTAL STORYTELLING

Besides back stories for individual characters, there are also background stories for the fictional world of a game. This is also called environmental storytelling or spatial storytelling and can be understood as an expanding backstory in the setting of a game. It involves the design of the environment and the architecture of individual buildings, cities, objects and boundaries within a game world. In most cases, this environmental storytelling is designed as a parallel or tangential narrative. This means that the aim is to tell non-player-driven stories and thus give the player more of a sense of the motivation of the characters. (cf. Heussner 2019: 38) The mysterious ruins made of rock in *The Last Guardian* (2016) tell of an unknown culture that bears witness to knowledge and power. The island in Jonathan Blow's *The Witness* (2018) was even designed with the help of an architectural firm that, in constructing the buildings on the island, tried to conjure up a cultural history of bygone times which would be perceptible in individual locations. In *Journey* (2012), it is not only the buildings and bridges, but also the murals, carpet-like paths and scarves with symbols on them that seem to represent traditions from another time – they add to this game world a unique and distinctive historical layer. Tobias Heussner (2019: 37) describes this as lore, "composed of traditions, knowledge, and beliefs as held by a particular group".

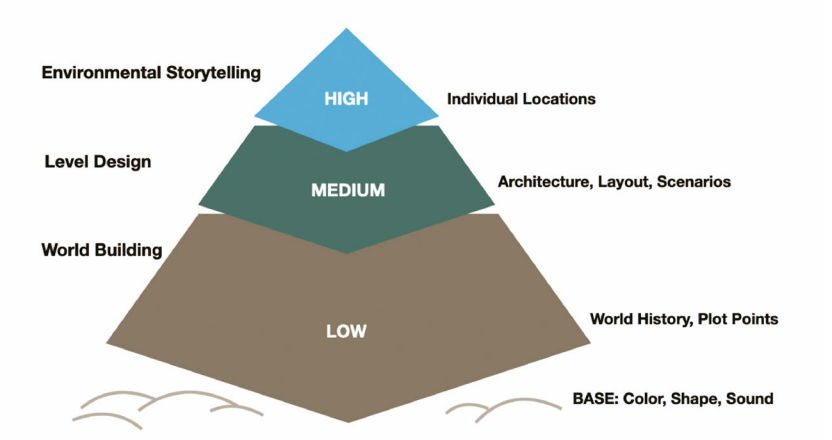
In itself it is an extended part of world building. World building in the sense of: we need to have an economy for our game world. We must have a cultural history for this world. We have to know what the driving forces are in this ecosystem. We need to have an idea of how this world or its current state was created. We need not only terrain, but also suitable flora and fauna. We need social systems, communication systems, transport systems, guidance systems, etc. This world building is, of course, very important, but it also differs considerably from game world to game world in terms of its layout and diversity.

It doesn't help much if we recreate a real city, but then can't enter the familiar buildings, so they don't tell us anything because only the facades are there. And it doesn't help much when, as in Tom Clancy's *The Division 2* (2019), the

Martin Luther King Library in Washington DC is recreated and serves as a shooting location (with books piled up to form protective walls), but the whole social background of the building is hidden. A good example, however, is the completely fictional world of *The Legend of Zelda: Breath of the Wild* (2017), which provides a kind of story sense for the player with its landscapes, individual locations, huts, villages and strange communities and cultures. The game creates a narrative ambiance rich in exciting events and encounters in a vast, varied, attractive landscape. Individual areas such as the desert (the Gerudos) or the water world (the Zoras) are self-contained regions with matching cultures and architecture, right down to the individual rooms, signs, food and objects.

The game critic Mark Brown uses the game *Bioshock* (2007) to illustrate how environmental storytelling permeates the various levels of world building. The entire environment of the underwater city of Rapture is permeated by narration. The city is located on the seabed and seems to have been built primarily for high society with fancy bars, apartment complexes and a theater district. "A place built on lofty philosophical ideals." (Brown 2020) But also a place of ruin and despair. Rapture's decline began on New Year's Day 1959, as a neon sign suggests. The environment here functions as an effective method of storytelling. Narrative elements are embedded everywhere in the spaces and places we visit over the course of the game. We thus understand more and more of this world without the need for more traditional ways of storytelling. Brown believes that level design can drive our understanding, feeling and identity. It is a participatory approach to creating an overall story through deductive thinking as we connect the details. By investigating, exploring and deducting, we become an active participant in the narrative process and are no longer passive spectators. Often it is simply a matter of static objects, but it can also mean that we accidentally overhear something, that a certain animation provides us with new information or that we find texts such as books, letters, item descriptions, scans, graffiti or the like. The transfer of information may also happen through small- or large-scale location evolvement, when previous actions have influenced the environment and we are now confronted with the consequences as we visit the location again. Or we recognize, for example when we encounter an electrified grid, that danger awaits us, or there may be clues such as light, fog or symbols for what could happen next, where to go next, or perhaps hints for the game or for puzzles are provided.

Figure 2: Environmental storytelling as an effective way of conveying a narrative at all levels of development, as seen by Mark Brown (2020). Most effective at the highest level with embedded objects, traces of events and history.



Source: Mark Brown (adapted)

In the games mentioned above, the game designer can be seen more as a narrative architect than as a storyteller. Henry Jenkins (2003: 12) was already convinced of this when he analyzed the narratological consequences of game spaces and described the game world as an information space or memory palace (ibid: 10). Like Jenkins, Brown (2020) divides the development of a narrative landscape in a game into three areas: firstly, environmental storytelling, in which micronarrative vignettes and individual locations such as bars, markets, squares are developed; then, the level design with its architecture, layout, materials and scale; and finally, the world building, where the plot points for the story of the fictional world as well as the factions have to be set, and the main actors for the story have to be determined. According to this concept, environmental storytelling is responsible for the narrower contexts, but depends on good networking or embedding in the wider contexts. There are games in which these areas flow smoothly into one another and trigger an intuitive feeling in the player. In these games, color, shape and size as well as sound and music are the main elements. They are often used specifically as emotional triggers and motivators. Thatgamecompany, for instance, in games such as *Journey* (2012), mainly work with light, sound and flowing animated environmental designs which are influenced by the weather.

But sometimes it is just single objects and ambient scenes that provide us with more information and more immersion concerning the game. In *Mario Kart 8* (2014), for example, an ice cream truck with cheerful toads stands at a central point of the circuit at Peach's castle, which underscores the game's party mood. In the game *Inside* (2016) the player has to pass through a field of very tall corn when it rains. The rain becomes visible under the light beam of the street lamp and together with the misty gray background lends the game a soft horror mystery atmosphere, while the player with their avatar of a frightened boy sneaks past in direction of the barn.

QUESTS – EVENTS, TASKS AND MISSIONS

Narrative games often use the proven system of quests as a bridge between story and interactivity. In these, simple narrative mechanics tend to be extended into complex quest systems and more complex network storyworlds, such as in open-world games and MMORPGs. Quests have the advantage that they can transform narrative structures into activities. This has always been the case with quest narratives, except that authors (of legends and books) could only encourage their readers to engage in interpretative activities and imaginary interactions with and in their fictional world. Practical activities, however, were not possible for them. This has changed fundamentally. Now that media and interactive options are available in addition to oral and written narratives, the author can offer action and behavior patterns and invite the player to perform practical actions in simulated rooms or participate in interactive events by means of targeted actions. It is therefore possible to translate narrative quest structures in video games into activities that can be performed in practice by the player (avatar).

Recombined characters and functions

Vladimir Propp's *Morphology of the Fairy Tale* (1968), a formalist study from 1928, provides the basis for the examination of game theoretical narrative structures. In his study, Propp refers exclusively to Russian fairy tales and develops a theory of forms of the fairy tale that comes close to the idea of narrative mechanics. It is based on the extraction of narrative rules deployed by these fairy tales. Starting from the forms and structures of the fairy tale rather than the content, Propp shows that the different elements of a fairy tale are assigned to each other according to a specific logic and can be reduced to a basic structural principle. In other words, he understands a narrative as a sequence of rigidly defined trans-

formations through which elements are recombined according to strict rules of substitution and linking – just like the grammar of a language (Howard 2008: 9). Propp argues that the elements in a fairy tale narrative are thus a series of recurring characters that perform certain functions or prototypical actions, such as giving a character a talisman, hexing someone or saving someone from danger. According to Propp, these characters and functions are recombined countless times in magical fairy tales.

A player in a video game is now able to perform exactly these actions, which Propp refers to as "formulaic functions" (1968). If we add the countless recombination possibilities, we have a working action and behavior pattern for narrative games. Some of the functions are activities to be carried out as actions in short sequences. Other functions immediately become the macro mechanics for the whole game. Super Mario runs and fights his way through a world of enemies and rescues the princess (*Super Mario Bros.* 1985), the Prince of Persia must free himself from the dungeon and rescue the princess and marry her (*Prince of Persia* 1989), Link explores the world and must find the parts of an artifact to free the kidnapped Zelda (*The Legend of Zelda* 1986). Lara Croft climbs acrobatically through jungles and ruins and has to destroy a mystical artifact (*Tomb Raider* 1996), the witch Geralt must overcome his amnesia and uncover a conspiracy (*The Witcher* 2007), Joel and Ellie have to fight their way through a post-pandemic world to become a resistance group in order to secure the survival of mankind (*The Last of Us* 2014). The latter two and many other games contain not just one or a few of these narrative formulas, but numerous such action and behavior patterns, each of which dominates individual sections and chapters, each of which asks the player to complete a specific task such as killing a monster or finding a specific berry or liberating a village before the adventure can continue. For example, *The Witcher 3: Wild Hunt* (2016) features about 50 main quests with numerous side quests, which of course require their own backstories that interweave with each other and keep the player busy for hours.

Quest

The quest as a long and arduous search for something is a narrative mechanic often used in games. It doesn't require long explanations, as we know it from ancient, medieval and modern legends, fairy tales and movies which involve a search for the Holy Grail, an ancient artifact, a secret manuscript or a spell book. In his book *Quests* (2008: 10ff.) Jeff Howard impressively presents the history of quest games and shows the connections between narrative patterns from antiqui-

ty and the middle ages and from fantasy literature to the narrative development of Dungeons & Dragons, Interactive Fictions, the first graphical adventure games like the *King's Quest* (1992) series, action-adventure games and online RPGs. The deployed patterns are rather similar, but still very diverse in their application. Quests are stories that are mostly built from sets of mechanics. A story is a collection of experiences and adventures of a character in the form of events. On their journeys, the characters now have to overcome obstacles. Quests are these obstacles in a story that must be overcome. It is important in this context to distinguish between missions, tasks and quests. The assignment and usage of these terms is not always clear among game designers and game studies scholars.

Basically, individual tasks are the smallest elements in the structure of a quest. Supporting this view, Tobias Heussner provides the following definition: "Tasks are single objectives and the smallest element in quest design. They describe exactly one goal linked to one activity." (Heussner 2019: 126) Consequently, a quest is a collection of one or more of these tasks, which receive a narrative framework in this way. (ibid: 126) However, missions can also be described as a collection of tasks. "Missions are a collection of tasks, usually featuring primary and secondary objectives from which only the primary tasks must be completed." (ibid: 126) What distinguishes them from quests is the way their instructions are outlined. Missions are introduced during a break in the gameplay and don't necessarily have a clear narrative framework, but usually focus on action-intensive gameplay. Especially in open-world games we encounter numerous missions that do not continue the narrative. Nevertheless, missions in themselves are an important element for quest game structures.

Quest design can vary greatly: from very simple obstacles and enemies that need to be skipped or competed, to very complex puzzles (and challenging boss fights) that require hours of collecting and figuring out the pieces. This becomes clear when the different functions are compared in a table: A task sets the player a single goal, which can be achieved with one or more actions in an event of a relatively short time (chunk). The assumption of a time frame of 15 seconds is only for comparison with the other functions. A mission is to be understood as a chain of events (with actions by the player), i.e. a story, which only corresponds to a section of maybe up to 15 minutes, for instance, when the player has to cross a river and accept some detours. A quest corresponds to a story with a clear narrative framework and is usually equivalent to a level. In *The Legends of Zelda: Breath of the Wild* (2017), for example, Link has to recapture the elephant automaton Vah Ruta (one of the four Divine Beasts) and complete various complex tasks to do so. *The Legends of Zelda: Breath of the Wild* is particularly convincing because of its clear chains of quests (or quest lines), such as the recapture of

the towers and temples, which open up further territories and continue the main plot, finally leading to the victory over Calamity Ganon and the resurrection of Zelda. And of course, the game also has some delightful side quests like finding, catching and taming the giant horse, discovering and using the climbing gear to be able to scale all mountains or finding the Master Sword in the middle of The Lost Woods. These side quests do not need to be completed to continue the main plot, but they are so attractive that the player most likely does not want to miss them.

Table 1: Summary of quest game structures showing the different quest functions, their respective narrative elements and their approximate assembly and duration.

Quest Game Structures			
Function	**Goal**	**Narrative Element**	**Timeframe/Length**
Task	single objective	event	chunk, c. 15 sec.
Mission	collection of tasks assigned in-between gameplay	story as chain of events	section, 1 - 15 minutes
Quest	collection of one or several tasks	story with narrative framework	level, 3-45 minutes
Side Quest	collection of tasks not connected with main plot	side story	quasi-level, 3-45 minutes
Chain of Quests	combination of quests	adventure as chain of stories	chapter(s), bunch of levels, several hours
Main Quest	goal to complete main plot and game	main plot	full game

EPIC STORY

The story itself is a collection of the experiences and adventures (chains of events) of our character(s). Our avatar has to overcome obstacles of all kinds. Literally and psychologically, the avatar covers a long journey, which brings us straight to the classic narrative mechanics of the hero's journey. It is now so well known in the game scene that it no longer requires a long explanation. It is still

the most-used narrative strategy for role-playing games, action-adventure games and shooters as well as some other genres. Typically, it is linear and informal with twelve scenes divided into three acts (Campbell 1949). It primarily shows the personality development of the protagonist and his or her torturous adventures to save the world. Conflict, struggles and emotional immersion are developed into effective patterns of medial storytelling that unfolds in a cycle. The hero's journey has become a template for dramatic (digital) entertainment for the masses. It is based on the Aristotelian three-act cycle and incorporates actions and events as well as themes and characters which, as Jungian archetypes and classical legends, are part of our cultural heritage as well as our unconscious (Suter 2016).

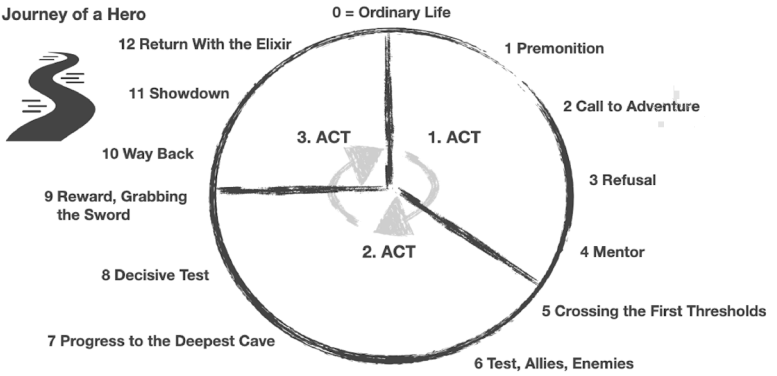
Last but not least, modern heroes were introduced by comics. Superheroes like Superman, Spider-Man and Batman reached a growing fan base in the 20th century. The film industry took up the trend and gladly helped to spread the word about these modern heroes – it still does so today with successful blockbusters. In essence, these superheroes – for example, Iron Man and Captain America – are transformed into mythical gods and champions of modern culture. They replace the ancient myths of all cultures and serve as role models across all borders. And sometimes even ancient and classical mythical heroes are transformed into comic and film heroes. Fans no longer celebrate these role models from a religious perspective, but rather from an aesthetic and action-packed and even cathartic perspective, or the more superficial perspective of role-playing, mimicry and imitation aesthetics (like cosplay), which seems to contain less archetypal potential but is capable of generating great cultural resonance and presence. Although these stories are rather escapist and excessively simplistic in terms of behavior and social actions within cultural patterns, they also have a great potential for emotional immersion. This is especially true for video games that capture the archetypes and dramatic structures of the hero's journey – for example, RPGs such as the *Final Fantasy* series, *the Legend of Zelda* games series, *The Last of Us*, *Superbrothers: Sword & Sworcery EP*, or even the more contemplative and atmospheric indie game *Journey* (2012).

The hero's journey

As we have seen, the epic story or the hero's journey is an important narrative mechanic for games. Its dramatic structure consists of the twelve stages of the plot (with possible deviations). These stages are arranged in a circle and at the end bring the hero back to a normal life: 1. Premonition, 2. Call to Adventure, 3. Refusal, 4. Mentor, 5. Crossing the First Threshold, 6. Test, Allies, Enemies, 7.

Progress to the Deepest Cave, 8. Decisive Test, 9. Reward, Grabbing the Sword, 10. Way Back, 11. Showdown, 12. Return with the Elixir. (Vogler 1992, Suter 2016) In classic stories, the dramaturgical arc spanning the twelve action scenarios usually reaches its climax at stage 11, the showdown. Video games that are played over many hours adjust this dramaturgical arc in such a way that individual chapters or individual quests are given their own, adapted arc – similar to the way TV series employ this. In-between scenarios, there are often larger open spatial areas that remain dramaturgically open as well. They are purposely designed as mechanic and narrative playgrounds or open (explorative) grounds and motivate players to design their own scenarios with individually chosen actions within the big(ger) story frame.

Figure 3: Epic stories are commonly outlined as a journey of a hero: the plot comes in a cycle of twelve stages.



Source: Campbell/Vogler

The absent object

An important part of the narrative mechanics of the hero's journey has crept not only into 20th and 21th century film, but also into video games: the absent object. Propp already used this term for the objects coveted by the heroes. They were either searching for them on their journey and had to bring them back home, or it could be an item that had been lost in the first place and now needed be recovered, or an item given by a mentor (Propp 1968: 34f.). Howard (2008: 83f.), on the other hand, points out how unimportant these objects themselves actually are, but at the same time he emphasizes how important their absence is. Their narrative mechanics only work through their absence from most of the narrative or

play; they are motivation and emotional identification and the driving force for the narrative. A good example of this is the Triforce artifact in *the Legend of Zelda* series. The in-game legends refer to it as "The Golden Power" which created the realm of Hyrule. It consists of three pieces, three equilateral triangles that fit together with a recessed fourth equilateral triangle in the middle, and is central to some games in the Zelda series. The common hero Link has been assigned the task of finding the pieces and putting them together to save Hyrule. The absence of the object initiates the narration and is a constant incentive for the player to solve the numerous tasks and complete the adventures.

Thus, the absence of the object has a direct effect on narration and gameplay. This idea is already present in Vladimir Propp's *Morphology of the Fairy Tale* from 1928. He speaks of a deficiency or an insufficiency. This situation of deficiency could be seen as the equivalent of a robbery. It provokes a quest. Propp provides an example with a brief comment: "A princess seizes Ivan's talisman. The result of this seizure is that Ivan lacks the talisman. And so we see that a tale, while omitting villainy, very often begins directly with a lack: Ivan desires to have a magic saber or a magic steed, etc. Insufficiency, just like seizure, determines the next point of the complication: Ivan sets out on a quest." (Propp 1968: 34f.) Propp further defines the function "The hero acquires the use of magical agent" (ibid: 43f.). A magical agent can be any of the following four things: an animal with magical powers, an object out of which magical helpers appear, objects possessing magical properties and qualities, or capacities which are directly given, such as the power of transformation into an animal. Propp further outlines the different types of transmission of the object (or magical agent), such as transference, sale or find (nine in all), which in Campbell's (1949) and Vogler's (1992) works are reduced to only one form of transmission, the "seizing of an object". These two authors speak of the "Magic Sword" or the "Elixir", which is sought by the hero throughout the entire narrative and is finally returned home or brought back to the place of origin.

Howard (2006: 84) points out that in film, Alfred Hitchcock had already regarded the idea of an absent object as the driving force for narration in the 1930s. With his customary sarcasm, he called objects of this kind a "MacGuffin", meaning an object that can drive the plot forward but is unimportant as an object in the film itself – for example, a murder weapon, a murder object or a suitcase with unknown contents that everyone is after, but in the end, the content may not even be revealed. What in Hitchcock's case could be a kitchen knife that loses its importance after being discovered, or in a James Bond film an atomic missile or a test tube with a virus, would find its equivalent in ancient legends in, for instance, the Holy Grail or King Arthur's sword. There are also

ironic variations on the serious use of a "MacGuffin", as shown for example in the film *Monty Python and the Holy Grail* (1975). The film structures its narrative around a knightly quest for the Holy Grail, which takes place at different times and is hilariously out of control. The online game *Kingdom Loathing* (2003) also takes a critical and humorous approach to this theme. When players give themselves a name and for example go on a quest called "TallRigatoni and the Quest for the Holy MacGuffin", they do this in the role of a 'pastamancer' called TallRigatoni.

Breaking the hero pattern

From there, it is only a small step to the many indie games of the last twenty years, in which various strategies are used to undermine the stereotypical pattern of a hero myth. In the adventure game *The Journey of the Roach* (2013), for example, two cockroaches are humorously introduced as hero and sidekick, who then deliberately go through all twelve stages of the hero's journey and always encounter rather clumsy animal contemporaries that have survived the nuclear war in the ruins of a department store. The satirical pattern of anti-heroes has been used frequently in point'n'click adventures, starting with *Maniac Mansion* (1987) and continuing through to the latest adventures such as *Psychonauts 2* (2020).

Jonathan Blow's adventure platformer *Braid* (2008) takes a different approach. Our avatar plays a hero who has to fight his way through a world of obstacles, enemies and puzzles in a jump'n'run manner to save his kidnapped princess. The game is a pastiche of Super Mario at first, but otherwise, the plot seems serious. Blow, however, hides a second layer of meaning in the game, which becomes more and more apparent over time, leaving the player wondering who the avatar really is. Finally, the player may wonder if they have been misled and have not played a hero after all, but unknowingly a criminal, who has done nothing but abuse his girlfriend. The suspense is not completely dissolved, and a further layer is revealed, which deals with the ethical behavior of science and its consequences. For a jump'n'run game this is quite a lot of food for thought. In *Braid*, Blow basically uses the hero pattern to take it to a point of complete absurdity.

Davey Wreden achieves a similar result with *The Stanley Parable* (2011). He uses a narrator from offstage to tell the player the story of Stanley. Stanley works in an office building and has the task of monitoring incoming data on a computer and pressing the appropriate buttons without asking any questions. But one day no more data arrives on the computer and Stanley doesn't know what to

do. Perplexed, he starts to explore the office space and realizes that there is nobody else in the building. At this point, the story splits into different paths according to the player's choice. Players can follow the instructions of the narrator, or not. If they do not follow the instructions, the narrator will try to put them back on the right path. Further on, the narrator gets angry, doors slam in Stanley's face or he is presented with wrong clues. Stanley is the confused anti-hero who is led around by the narrator. He is given the superficial choice to take the right or the left door, but the narrator immediately takes away control of his actions. The multilinear game has a total of 19 endings, one more abstruse than the other, so that in the end more questions remain than are answered. The heroic image is broken here more than once, and the most important element in all this, besides the divisive storyline, seems to be the commenting narrator who can send Stanley astray at any time.

PATHS, STORYLINES, DECISIONS

What the *Stanley Parable* (2011) does with naturalness is not always so easy to implement in other games. The principle in *The Stanley Parable* is that each path taken finds its own end and in turn motivates the player to start the game all over again and find a different story path next time. *The Stanley Parable* (2011) achieves this on the one hand by focusing on the character Stanley, who is played from the first-person perspective after the initial cutscene, and on the other hand by focusing on the mystery of unusual situations and an extremely unreliable and bossy narrator who constantly confronts the player with the unexpected and carries them to yet another different ending.

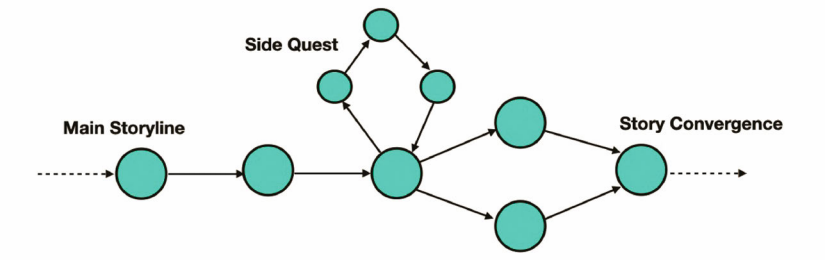
If we want to create a multilinear story for our game, the first thing we need to be clear about is whether the player's decisions are not only meant to be cosmetic, but can have direct effects and long-term consequences on the game's story and gameplay. Or do we follow the example of many games and just pretend that the player can choose and determine the story? An important narrative mechanic for this is the planning and delimitation of the storyline: should it be linear, multilinear or nonlinear? Multilinearity is aspired to by some narrative games but claim and reality are often rather far apart. This was already apparent in point'n'click adventure games such as *The Secrets of Monkey Island* (1990), which functioned exclusively via interactive dialogs and, with up to four choices of answers in each case, suggested to the player that they hold the story in their hands and can determine the outcome. However, many dialogs led back recursively, and different endings of the story were also very rare. Nevertheless, the

sequels of *Monkey Island* did indeed have short alternative endings and thus contained a pinch of multilinearity, at least in their final sequences.

Periodic attempts to establish multilinear film over the years have vividly shown how much effort is really needed to be able to tell good multilinear stories. As soon as the story fans out (*Late Shift* 2016) or is told from different perspectives (*I'm Your Man* 1992), the individual story strands become shorter, the interweaving of the strands more complex, the work more fragmented, and the flow of the storyline is no longer guaranteed in all parts of a film. *Bandersnatch* (2018) shows this in a relatively extreme form with very short sections. It builds the story around the creation of a game and makes several passes necessary in order to understand it. Games have it a little bit easier. Their decisions don't have to be so set up and immediate. But they often fail to introduce clear paths and communicate them to the player. And in most cases, the decisions made are ineffective, even meaningless and fizzle out in the end. Only open-world games offer more possibilities here, because in these fictional worlds, besides the quest lines, the player gets the option to experience stories that are not prescribed.

Some major productions of narrative games offer multilinear sections for the player or they offer different endings, such as *Resident Evil* (1996), *Heavy Rain* (2010) or *Detroit Become Human* (2018). Generally speaking, these games are difficult to make because it also means that more content has to be produced so that the connections work logically. The immediate solution is to offer certain sections of a game as multilinear areas with some diverting paths and a convergence point where the lines flow back into one storyline.

Figure 4: Multilinear areas are often simply designed with individual side quests and sections providing two or more parallel storylines that soon lead back to the main storyline.



Source: Beat Suter

Among indie games, on the other hand, there is a cluster of games that have made multilinear storytelling the focus of their game. In them, the player has to make decisions all the time and each decision has a clear impact on the story. The narrative mechanics of decision-making becomes the most important mechanics of the game. In *Reigns* (2016) we swipe the respective character card to the left or right. Each card is a replication of a non-player character (NPC) with their statement or question. And this is how we generate the story of our reign, which will be shorter or longer depending on the cleverness of our decisions. In turn, the reigns become embedded in their own history of thousand or more years, thus closing the narrative framework for the individual short stories of the player avatars' reigns.

The thoroughly multilinear game *80 Days* (2014) goes one step further and offers a stringent world the player must travel through as servant Passepartout. His master Phileas Fogg has placed a bet at the Reform Club in London. The basic story is taken from Jules Verne's novel *Around the World in Eighty Days* (1872). One game round corresponds to a journey around the world that should last 80 days or less. But the travel choices made in conversations with other passengers and with residents of the places visited, about timetables and about choosing the next possible routes on the map, turn each game round into a different journey. The decisions not only have immediate consequences, but often also some that cannot be foreseen and only become apparent later, when certain travel options open up for the player or when detours via other countries and continents have to be accepted. Each run lasts between four and six hours for the player, is unique and reveals only two percent of the whole game content. Each run may differ considerably in time and place, since it is very likely that you encounter new transport vehicles, new characters and new interlocutors. In total, the game consists of 750.000 words and over 150 cities and thus confirms the assumption that real multilinear games require huge amounts of content for the individual stories to be longer, rounded and of equal value.

Figure 5: 80 Days: each city offers several possibilities to travel further. On a round-the-world trip, you will certainly visit 50 cities, each with several route options, all of which lead to different routes around the world.

Source: screenshot (Suter)

TOP-DOWN AND BOTTOM-ALONG STORYTELLING

In many narrative games the traditional hierarchical storytelling with a plot still dominates. But generative storytelling is increasingly intervening, creating a variety of story possibilities in the form of different small segments. For the game designer, this means that top-down storytelling mixes with bottom-up storytelling. So, there is still a main plot, which in principle consists of an exposition, a main part and a conclusion, but on the other hand, bottom-along storytelling has become more important, especially in open-world games like *Grand Theft Auto V* (2013), *Red Dead Redemption 2* (2018) and others. This means that functional and narrative mechanics are "decided, processed and performed" by the player scene by scene. The player is given decision points at (almost) every step and can now not only choose the storyline, mission and path they want to follow, but also the time and space. In some games such as *Grand Theft Auto V* it is also possible to not accept missions and quests and instead go and explore the game world on your own. However, there are limitations such as barricaded city districts that are supposed to lead you back to the path of the quests, but even the limited game-world areas offer enough possibilities to play and experience a story for yourself.

Still one of the clearest examples of successful mixing of top-down and bottom-along storytelling is the experimental game *Façade* (2005) by Andrew Stern and Michael Mateas. The two developers built an extensive architecture with a behavior language, a drama manager and a structure of "beats". Not all of the beats can be placed nonlinearly, but most of them are put together in new and different ways each time the game is played. And the beats have nonlinear bottom-along substructures: "Most beats internally have a good deal of variety of behavior, as well as the ability to mix in a large pool of global mix-ins, which comprise a full third of the overall dialog content in Façade." (Stern, August 10, 2005, 2:14 am) The player of *Façade* thus gains the ability to experience a high degree of local action at any given moment. The developers succeeded in doing this through the versatile possibilities for the composition of the beats. The characters develop credible independence in their (conversational) actions and reactions. In addition to this, the player was also supposed to have a high degree of global capacity to act. But this goal could only be achieved to a modest degree. Nevertheless, *Façade* is still considered an outstanding example of an interactive drama. In retrospect, Stern recognized that the real solution to more global agency would have been to produce more generative content. "The need for generativity and procedurality – that's probably the biggest overall lesson learned on the project." (Stern, August 10, 2005, 2:14 am)

And this brings us closer to the next narrative mechanics, generative story elements or emergent storytelling, a narrative pattern that is the current and future hope for game designers and players alike.

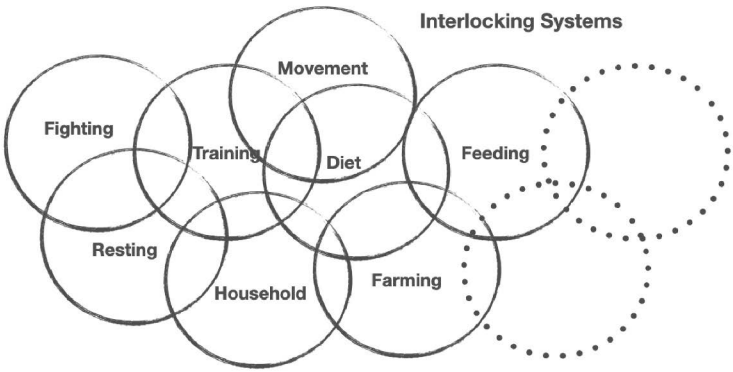
EMERGENT STORY

In a so-called emergent narrative, the story is no longer created by the developers, but by the system. Looking at this process from the player's perspective, it seems fair to say that the story is constructed by the player themselves through their interactions and explorations within a particular game world or environment. This type of narrative is influenced by various random game-specific factors. It is "emergent" in the sense that a narrative is created by the player as they continue playing. It is thus a kind of writing down (or recording) of the path the player takes during the game. To put it more succinctly: the narrative emerges from the gameplay. The player does not receive a prescribed story, but rather the game allows them to develop their own story based on their own experiences. This is also the big advantage of emergent stories in games: The player develops their story virtually by themselves, and they then feel like they are in charge,

even if the individual characters react differently than expected or desired. Even without noticing it, the player performs interpretation work in order to distill their storyline from the individual actions and plots. This means that they are also thinking actively as they create and develop their own story.

Emergent storytelling in a game means that intricate nested systems of behaviors, relationships, events and processes must be developed. These complex systems must fit together well, but they are difficult to control because they are partly filled with random content which constantly creates new relationships. As a result, often unpredictable actions and unforeseeable events arise – with surprisingly positive but also negative outcomes.

Figure 6: Emergent storytelling is not a story written by a developer, but a set of complex intricate systems. The story emerges from the player's interactions with different subsystems that are connected to each other.



Source: Beat Suter

In the *Civilization* series, history is rewritten each time in a random world. The player can build cities and decide whether the people will live peacefully together or wage war against each other. To a certain extent, the player controls this world. They can set their own goals and progress with a chosen nation through the centuries. This seems so appealing to many that they share their experiences in the form of stories in forums. In *Civilization V* (2010), for example, you can even dominate the world from Polynesia and share this with the community in rhyme (ThatOther Jake, 2014). Each of these game stories is unique and cannot be experienced a second time in the exact same way, even if the initial parameters are set precisely in the same way. Of course, individual events and reactions

of individual leaders of other nations will be similar, but the player's own experience of the storyline will not repeat itself, as it is in effect organically produced in the game rather than being prescribed in all its details by the game designers.

Minecraft (2011) is a systemic random world of blocks which is all about survival. The game doesn't come with a ready-made storyline; the player instead creates their own storyline. To survive, the player's avatar must make tools, collect food, mine resources, explore areas, construct buildings and create structures. The game does not take the lead; players set their own goals and ambitions. If they remain inactive, nothing happens. Within the crafting parameters, they create their game world and can even implement small systems like a roller coaster. While progressing through the game, the player creates more and more content for their own world and thus a story for their *Minecraft* character, which of course also contains some formative random events. Basically, games like *Minecraft* and *Civilization* provide the player with a setting of complex world systems and leave them alone with these, so that they can build their own world in peace and experience their own story. In this way the player is responsible for their own story and can identify more strongly with it. However, to an outsider, the narrative interpretations sometimes remain rather hazy.

Somewhat less imagination is needed for a narrative in *Dwarf Fortress* (2006) and *Crusader King II* (2012). Here, emergent storytelling is an important part of the gameplay; the story is written directly into logs and can be read. *Crusader King II* does this in small portions with clear descriptions of the characters and the individual events and their narrative consequences in a kind of biography of a noble family. Thus, without a predetermined plot, it is possible to build a stable prosperous republic with a dynasty in a few decades, for example, starting from Venice in the 15th century and covering the entire Dalmatian coast of Croatia. Or it is possible to conquer all of Britain from Ireland and write a successful history for an Irish dynasty. Clear story-generating mechanics and carefully incorporated historical events and references provide great support. *Crusader King II* essentially creates a generative story like the simpler *Reigns* (2016) does, but the randomness is less noticeable here and the historical lines are longer, more consistent and more credible.

The stories of *Dwarf Fortress*, on the other hand, offer no such support and achieve greater abstraction and vagueness along the lines of epic fantasy stories. Randomness as a creative force comes into play even more strongly here. And the game designer no longer has direct control over the stories, but indirect control via the content-generating systems. *Dwarf Fortress* is a hybrid simulation or roguelike that procedurally generates entire continents, populated by characters with histories stretching back centuries. It uses numerous networked systems;

with each update they become more extensive. The individual events are described with individual sentences, which are always formulated in the same way syntactically and semantically and require a high degree of adjustment for outsiders to get used to. An example:

In 362, the dwarf Kel Caastlecudgels confronted Omsos.
In 362, Omsos struck down the dwarf Kel Caastlecudgels in Oakenchannels.
In 367, the dwarf Zon Curledhandle confronted Omsos.
In 367, the dwarf Zon Curledhandle's left upper arm was ripped by Omsos.
(Kruggsmash, January 23, 2020)

Ultimately, this means that the emergent narrative flows along the mechanical connections of the game – for example, the dwarves' aggression and combat, the objects and their use, or the production of individual resources. The developers work hard on interlocking mechanics which are resonant and consistent with the outside world. This is supposed to make sure that the player can investigate almost anything. It is a bold attempt to strive for accretion and replayability. The game now contains so many networked systems that the developers have to check again and again why individual systems remain inactive in individual actions, so that they can reactivate them with a small change. Finally, the game can give rise to stories that are passed on by the community in documents of up to three hundred pages. The best example of this is the document on *Boatmurdered* (Various authors 2006-2007), which was created in effect as a Let's Play of the game *Dwarf Fortress* (2006), on the epic dwarf fortress "Boatmurdered" in which each ruler was given a single year of game time to manage the fortress before they had to hand over the reign to the next player. Visually, a game like *Dwarf Fortress* with its complex interlocking systems was only possible in a greatly reduced form. The developers Tarn and Zach Adams had decided to use a full Ascii character set. This gave and gives the game a special singularity and made it possible to connect complex systems with each other (cf. Adams: 151-160). This may discourage the uninitiated, but nevertheless, after 18 years of constant development and playing time, *Dwarf Fortress* is still a trendsetter and experimental benchmark for emergent storytelling.

However, more and more visually sophisticated 3D games are also orientated towards emergent storytelling and introduce individual complex systems that allow partial emergent storytelling. A good example is the weather system of *The Legend of Zelda: Breath of the Wild* (2017), which can not only change the environment significantly, but also has a lasting effect on individual events. When it rains heavily, the slopes become so slippery that Link can no longer get up the

mountain and has to find another route. Also, some weapons are then no longer usable or have to be discarded immediately to prevent them from attracting lightning. A system like the Zelda weather system therefore influences other networked systems and makes some events more unpredictable and diverse. Players like to research this kind of unpredictability and use it to their advantage. For example, in *The Legends of Zelda: Breath of the Wild*, as in other games, it is possible to lure individual opponents within reach of each other and when they meet, they then fight each other and the player is able to just watch and move on unscathed. The game is full of such complex systems that can change the respective current events in a lasting way. Nevertheless, this doesn't alter anything about the epical framing story around Zelda, which the player is allowed to uncover with their avatar Link.

CONCLUSION

The patterns of storytelling in video games can be very different as these games have their own mechanics, formats, premises and structures. Over the years, more and more patterns have been added. However, the use and strategic application of individual patterns are always connected with the choice of genre or the approach to a genre for the game that is to be developed. While a game like *The Witcher 3: Wild Hunt* (2016) uses all the patterns and strategies mentioned above, indie games apply individual patterns or put them in the foreground in a very specific way, thus creating a clear narrative focus for the player. For instance, *80 Days* (2014) puts the choice of the itinerary at the center of the storytelling process, *Braid* (2008) focuses on rewinding actions for gameplay and story, *The Stanley Parable* (2011) tries to destroy the hero myth by means of a commentator and show different outcomes, *The Last Guardian* (2016) focuses on empathy and cooperation between humans and animals and an intuitive environment design as a guidance system, *September 12* (2010) addresses the moral dilemma of fighting terrorists, *Crusader King II* (2012) generates entire histories for royal families and nations in the style of a narrative simulation, and *Dwarf Fortress* (2006) focuses on the dynamic generation of life stories of individual (dwarf) avatars with a strong random component.

Therefore, this article can only provide an overview and a brief introduction to the most important of the many possible narrative patterns for games. These are patterns that can also be combined and expanded and may include, for example, music and sound as narrative mechanics (cf. Polus: 91-110) or emotional character design, or even the targeted narrative use of game mechanics itself (cf.

Kocher: 299-306) – all of which outlines a topic that may need to be explored much further and more deeply.

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