2.2 Game Writing and Interactive Storytelling

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Overview

While stories have been a part of electronic gaming since the beginning, in the majority of cases, they seem to exist as merely an afterthought, secondary to graphics and game mechanics. They are often overlooked by game developers and written off as being all dialogue or simply not interesting. Unfortunately, this sells the story short, for a story is, at its heart, conflict, and conflict, after all, is exactly what gaming is about. Furthermore, as technical elements are reaching their apex, developers are now turning to alternate ways to make games realistic and immersive. The emerging art of interactive storytelling in games is an excellent way to achieve this.
Storytelling has been an integral part of the human experience since the caveman days. Stories allow people to escape reality and to be people they could never be, doing things they could never do, in places they could never go. This holds true for stories in video games as well. However, in the gaming medium, storytelling requires a new level. For example, even narratives written from a first-person viewpoint in a traditional story are still about someone else, whereas in a game, the player is playing the role of the character and events that affect the character, as its essence, affect the player's own personal experience. While interactive storytelling within electronic gaming shares many elements with more traditional storytelling, it has, over the past few decades, evolved into its own unique medium.

There are three primary ways a story can be experienced. A person can be told a story, either orally or through text, he can be shown a story as through a movie or cut scene, or he can experience the story by interacting dynamically with the storyline. While the first two ways can be quite immersive, when delivered alone, they fall short in the gaming arena. The average gamer is an impatient soul, with action on the brain, and will almost always start to experience the story, rather than hear, read, or see it. This, combined with increasing player sophistication, calls for the growth of the interactive story.

While not possible, or even desirable, in every game situation, the interactive story is an excellent way to fulfill this wish to experience the story, rather than passively absorb it. At its best, the interactive story can be created within the player, the psychological state of flow, where reality fades and all consciousness is focused inside the game. The story also provides the player with the motivation to continue playing and a reason to press forward through game obstacles. The player is continually rewarded by uncovering new parts of the story as he plays the game. This maintains his sense of immersion and creates a more fulfilling gaming experience.

Immersion is the main reason to create amazing game stories and to build impressive game worlds. Giving players a presence in the world and making it a part of the story is essential in creating a sense of immersion [Krawczyk06]. As a writer, it is also important to know your audience and be fully aware of the scope of the project so that the writing is appropriate to the type of game being developed. Generally, when writing for a game, the rule is to be as efficient with resources as possible, while still creating an entertaining experience for the player. Game making is a for-profit business, and as much as writers would love to try new and fantastical ways of telling a story, it is usually not within the scope or budgets of the game being developed. However, there are many methods and techniques for creating an immersive game experience through writing that aim to maximize immersion, while still keeping the scope of the game within reasonable parameters.

Know Your Audience

It is essential for the development team, including the game writer, to be on the same page and to have complete understanding of the scope and vision of the game they would like to create. Different types of games, traditionally, demand different type of story, and even within each game genre, there will be differences that will affect the type of narrative that will best suit the game [Dille08]. For instance, it would be a huge waste of resources to include several very expensive, cinematic cut scenes to explain the backgroud of a character in an action game for the Nintendo DS.

For most action games, such as SEGA Corporation's Sonic Unleashed or Nintendo's Super Mario games, the purpose behind the game is to survive and to use timing and fast reflexes to overcome obstacles. While an exciting setting and a fun character are usually essential to these types of games, an elaborate story usually is not necessary. The character is driven by one major goal, such as to escape公主 or to simply survive in the treacherous game. The testing of reflexes required of such games is usually sufficient to keep players entertained and to motivate them to continue playing. Furthermore, unless the storyline is delivered as quickly as the game is running, it will not be well received, and will instead be seen as an intrusion on the action. Therefore, for the majority of action games, creating an elaborate or interactive storyline will probably be a waste of resources.

The case is often the same for shooters, although some recent releases have attempted to include a more complex story. Moreover, some shooters have become cross with other genres and share many game elements with puzzle games, action games, and RPGs. Valve's Half-Life 2 and 2K Games' BioShock, for example, are still both shooters; however, they are both also rich with narrative elements usually seen in RPGs and twist elements traditionally used in action games. Shooters have also moved online with games such as Left 4 Dead and Halo 3, where there is a basic story and setting; however, for the most part, players create their own stories through their play. Ask any players that have been playing a game online for a day or two and they will have plenty of stories to share about what events transpired in their gameplay world with their online partners and enemies. These stories are personal, and could never be anticipated or designed into the game.

Because of the large diversity among shooters, it is really up to the scope of the project as to how much and how complex the narrative should be. It has been shown that narrative has been well received in recent shooters, and many of the top-selling games over the past few years have been shooters with a storyline. Other, more pure shooters without a plot are also still selling well. There will always be impatient players for whom the story just gets in the way of the mass shootings. For shooters, then, it truly is a case of "know your audience."

This same "know your audience" philosophy can be assigned to other genres as well. Traditionally, racing, fighting games, strategy, puzzle, and rhythm games have been thin on plot. However, this does not mean that there is no room for narrative within these genres. Incorporated correctly, a strong narrative can easily increase immersion into these games. In the near future, it is likely that many genres will expand to include more intricate narratives into their gameplay.

The genres that citizens have demanded strong narrative elements are the role-playing game (RPG) and the adventure game. Players in these genres not only
appreciate a good story, but they also have come to expect it. This is the place where a
well-thought-out setting, plot, and narrative are integral to the gameplay. With these
genres, the players usually have time to think about and analyze their next move.
They want to make their own decisions, and they want their decisions to matter. They
want to be immersed in rich and fantastical worlds they can explore as they develop
and nurture their character. It is within these genres that the interactive story can
really enhance a player's experience.

Not only is genre a major consideration, but it also needs to be known which
platform the game is intended to be played on. The audience between console games,
PC games, handheld, and mobile games is very different, and the players have very
different expectations and tolerance levels. The age group the game targets also needs
to be considered, as again, different ages have different expectations of a game. The
details of these expectations will not be explored in this chapter; however, it is impor-
tant to be aware that these differences exist and to make sure when writing for a game
that these differences have been taken into consideration.

Budget and Other Limitations

Ask any group of developers, and they would agree that, of course, the writing is
important to the game. Unfortunately, a look at the budget tells a completely differ-
ent story, and generally, only a small portion of time and funds are devoted to the
writing. Games with good plots don't necessarily sell any better than those without, so
when budget cuts are necessary, the story is often the first to go [Jeffries08]. It is key,then, for writers to be clear about what limitations are being placed on them, and to
find ways to maximize immersion while staying within budget limitations.

Implementing stories in games has been a slow process and has not always proven
profitable, and in general, the game industry does not like to take financial risks.
Warren Spector of Deus Ex fame compares the current situation to the movie, Citizen
Kane [Rosok 95]. For all of its critical acclaim, Citizen Kane failed to turn a profit. In
games, Spector's innovative 2004 game Iso is an example of a groundbreaking and criti-
cally acclaimed design that failed to meet with commercial success. Iso uses a simple,
yet compelling story to motivate the player through a series of puzzles. It is done in
such a clever and simple way that the player becomes completely immersed in the boy
meets girl tale. However, despite its innovation and current cult following, it never
turned a profit for its developers.

Commercial failures of this sort often keep game developers reluctant to take a
financial risk on a game based on a cutting-edge story design. Often, they prefer to stick
to guaranteed moneymakers, like sequels and games based on commercial characters.
This means that authors might be forced to only make small strides away from time-
honored game-writing techniques. Clever stories are not always welcomed with open
arms in gaming studios. Be aware of how far the studio is willing to go in implement-
ing innovative ideas and be sure they are open to it before attempting experimental
story designs.

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Another cost consideration is that of hiring professional actors. Stilted and poorly
spoken dialogue can be the death of immersion for a player. If the acting is not con-
vincing, the game will be unbelievable, thwarting the entire reason for having dia-
logue in the first place. Even the most superbly written script will fall in the hands of
a poor actor. If the budget does not allow for the hiring of professionals, it is pref-
erable to have dialogue delivered in text form, rather than poorly delivered expositions
by an amateur. Therefore, know ahead of time if there will be a budget for profes-
sional actors and plan accordingly.

The writer might also be bound by technical limitations. For example, the writer
might write that a giant bat comes down and swoops the character off to a new area,
but the game engine doesn't support flying. One of the biggest problems with game
writing is lack of communication about what is and isn't possible within the game
[Jeffries08]. Although it might seem as though a game world is filled with unlimited
possibilities, most games are actually fairly limited in what can and cannot be accom-
plished. Therefore, writers need to be fully aware of the technical limitations of the
game they are writing for.

Basic Storytelling Techniques

It is important for a game writer to understand classic story structure. It is a tried and true
method that is simple, works, and will repeatedly meet audience expectations. There are
many ways for the experienced writer to stretch her creative limits and move from this
path; however, for the beginner, it is usually best to stick to a formula that has stood the
test of time. These are the roots from which the vast majority of stories are created.
The perception of many developers is that story is primarily dialogue. Not only is that
not true, but a lot of dialogue is usually not ideal in a game, and will try most players'
patience. Instead, think of the story as a series of conflicts and obstacles that build upon
each other. Place these conflicts within a classic story structure, and a story is created.

A story usually begins as a basic concept or idea. This is generally a broad idea
that places some character, in some situation, in some setting. For example, a concept
might be that a woman wakes up on another planet with amnesia and must find a
way to get back home. Meanwhile, she uncovers a devious plot to dominate earth and
finds a way to stop it. Or a rookie cop discovers that he has the power to read minds
and takes down the mob without letting his superiors become aware of his power.
These are the basic premises of the games and the details can be fleshed out later.

By following basic story structure when writing for the game, the writer is much
more likely to provide the player what she expects and the tools to be satisfied. While
other story formulas exist, and an experienced storyteller can take creative license and
try some new methods, the story structure outlined here is simple and fairly easy to
implement. The basic story structure goes like this: Begin with the inciting incident,
followed by rising action, then a heart-stopping climax, and finally, a satisfying resolution.

Inciting Incident → Rising Action → Climax → Resolution
Inciting Incident

Every story begins with what is called an "inciting incident," where the major conflict of the story is introduced. Up until this point, the character's life was going along a predictable path, then, bam, some event occurs that throws things out of balance. This is the hero answering the call to adventure. The moment when Jack's plane crashes in 2K Games' BioShock is an example of an inciting incident, and it is at this moment his character is thrust into the story, and the wheels begin turning. You also see this in Bungie's Halo, when the Covenant attacks your ship. From this point forward, the hero's path has been irrevocably changed, and the story begins.

It is important at this stage to really grab the player's interest. For many gamers, if they are not drawn in within the first 10 minutes, they are lost and may not choose to ever attempt to play the game again. This means beginning the game with immediate action and conflict. It can be brief and minor, but ideally, there should be an immediate obstacle for the player to overcome right from the outset.

Rising Action

Following the inciting incident, the character begins to experience a series of conflicts that drive the story forward. This is the rising action. It is during this time that the majority of the gameplay occurs, with the character encountering numerous obstacles and challenges as he journeys to his end goal.

In a book, much of the conflict is internal and takes place within the character's own mind. With a screenplay, the majority of the conflict is usually interpersonal and is played out with conflict between the characters. With games, however, while the other types of conflict exist, the majority of the conflict is going to be external and come from the environment, it is important, therefore, to make the environment rich and filled with conflict. This can come in the form of puzzles to solve, enemies to fight, people to coerce, resources to gather, and many other ways, but what is key here is to keep the player moving through the story.

It is during this portion that the players, through the game narrative, discover who they are and what they are capable of. They also find out who the enemies are and why they are fighting them. Basically, the rising action and the conflict uncovered provide justification to the players to keep going and a reason to continue pushing the button.

It is important for the writer to set up goals for the character during this portion and to make these goals meaningful [Krawczyk]. Goals can be given meaning and significance by making them about human wants and needs and relating them back to the story. For example, sending the character out to find a hat that has so much more significance if it is a special hat that has the power to make women fall in love with the hero. Later, that hat creates a scene of conflict between two NPC women in the story for the hero's attention. Don't send the character out on a meaningless, empty quest to fill time. If you want your character to collect pink orbs or silver coins, give him a reason why these are useful and a way for him to use these items in the game.

Make the quests and missions creative and interesting and keep them relevant to the story and to the character.

Pacing

Pacing is very important here. You want to build tension and suspense within the player. This tension and suspense can be released in small revelations to the character, and this is actually desirable to maintain motivation; however, there needs to be an overall sense of building suspense and tension. There needs to be a balance, revealing enough to the character to keep her intrigued and to reward her, but not so much that she feels she will know how it ends already. This is done by the character continually resolving small conflicts within the game, but not being allowed to solve the main conflict until the end. Furthermore, a good formula for achieving this is to put the cut scenes and slower action points after high action points, such as a dramatic confrontation, a huge revelation, or a boss fight.

Another way to keep the pace up is to use a concept borrowed from screenplays: Come back, leave early. What this means is to start the scene at the point of action and end it at the moment the action is resolved. For example, if the scene is to take place at a sporting event, the audience doesn’t need to see the characters park their car, buy their tickets, and find their seats. Instead, the audience should be dropped right where the action starts—in this case, in the stadium.

The same methods apply at the end of the scene. The audience doesn’t need to see anything past when the action stops, and doesn’t want to watch the characters exit the stadium if it is not furthering the plot. In this case, the action stops and then the next scene starts at a new location. With games, this would translate to having enemies and obstacles right from the beginning of any transition period. This inserting of characters at action points will keep the pace from slowing and the player's interest from waning. This is not to say you shouldn't ever slow the pace, but just make sure there are some sort of obstacles at the beginning of a new story segment, and that the character can learn the module once the final action piece is finished.

Climax

All of this rising action leads to the next element in the story, which is the climax. Everything so far in the game has led up to this event. The climax is the point in the game story where the major conflict of the story is resolved and all of the player’s questions get answered. This is the point where all the clues have led and the hero slays his archenemy, or rescues the princess, or disables the borg and saves the world.

Players expect this portion of the narrative to be intense and worth the investment they have given up to this point. This means the stakes should be high and the drama intense. The players need to feel like they have won. It is up to the writer to make sure that the clues and story elements that lead to this moment make sense and that it connects to the rest of the story.
Resolution
The final portion of the game narrative is the resolution. This is usually a brief portion of the narrative that gives the happy ending. It shows the hero enjoying his success and is the reward for having won. This can take place in a full motion video (FMV) or just a brief cheer from the hero. Primarily, it is just to satisfy the players that have succeeded, and it helps them bring closure to the story. As most players feel finished after the climax, this is not a time to introduce new conflicts.

Plot Types
The plot of a game is revealed in segments. Think of these segments like scenes in a play or film. A series of actions take place within one scene; then the characters move onto the next scene or series of events. Many games do this using a level system. A player completes one level and then moves forward through the subsequent levels. Or a game might employ a series of missions for the character to complete or dangers for him to conquer. Whatever the method used, these segments can be viewed as modules that contain conflict, action, and plot. This is different from modular storytelling, which will be described later in this section. How these modules are arranged dictates the way the player will experience the plot.

There is often contention among designers about which method of arrangement is superior. The thinking is that sandbox or modular storytelling is somehow superior to the linear plot; however, this is not always the case. Both types of games can create a successful entertainment experience and sell well on the market. A real-life example would be the Expedition Everest ride in Disneyworld's Animal Kingdom. A great attraction, it leads its riders on rails through a brief and exciting encounter. People have lined up for hours to get a chance to experience this. Contrast this to the actual Mr. Everest experience. Sure, the real experience is going to be more intensive, but it is also much more expensive, time consuming, dangerous, and requires far more fortune. Currently, there is a market for both types of experiences. Again, it all depends on the target audience.

Linear Plots
The linear plot is the most simple of the plot lines. Picture a series of modules placed in order, from beginning to end. In this type of narrative, the plot points are revealed in a predetermined sequential manner. Once a player has accomplished all of the goals in one module, he must move to the next in the sequence to progress the story. The player can still interact with the game world; however, his interactions will not change how the story unfolds or which game module comes next. The majority of the content in a linear story is explicit and created by the game writers and game designers. The experience variation from player to player in this type of game is minimal. Most players will have a fairly similar and predictable experience.

Narrative is often delivered between the modules in the form of cut scenes, briefings, or voice-overs. Reverse movement through the modules may or may not be allowed, but once a section is cleared, no new plot elements or challenges should be available to the player. Games of this sort are often compared to an amusement park ride on a rail, with one clear path through the fun. In a linear game, there is only one prescribed ending.

Linear narrative in games often gets a bad rap. However, there are times when this type of story best fits the game. For one thing, they are cheaper to make. It is familiar and comfortable to both the player and writer, and keeps control of the story in the hands of the author [Barlow07]. Also, they usually follow a winning formula that will have a guaranteed audience. There are times when a gamer doesn't necessarily want to think or solve puzzles and just wants to be taken on a ride. Games of this nature are probably not likely to win awards for their narrative, but they do have a place in the gaming world, and it is still important for them to have good writing. A good example of a well-done linear game is Call of Duty 4. The game sends the character out on missions that are completed in order and down hallways with doors that cannot be opened. Players are left not caring that there are no choices, as they happily blast away the enemy on an adrenaline-pumping ride.

Branching Plots
Implementing a branching plot is a tempting approach to take in order to have a player's choices make a large impact on the development of the story. Depending on which choice a player makes at critical junctures in the game story, the plot will play out completely differently. Branching plots contain multiple endings and have no clear spine, but rather, several spines. An implementation of this type of plot is seen in the game Dragon Age: Inquisition that Ernest Adams, in his 2006 Game Developers Conference lecture, dubbed the "decision tree of death." That is because there was only one correct, golden path through the branching that would lead to the hero's success. All other paths led to the hero's demise and the goal of the game was to uncover the sole correct path through the branches. This is not true of all games, however, and the possibility exists for many successful endings. While effective in creating different experiences for different players and conveying player empowerment, branching has many drawbacks.

One of the drawbacks of a branching plot is the waste of resources. Game elements need to be created for each area of the game, and some players will never even get to experience or enjoy the areas that fall outside of their chosen path. Even if they replay the game several times, there will still be areas that will remain unexplored. Also, the branches can grow to be large and unwieldy very quickly. For example, if a player is given just 12 binary choices, the result would be $2^{12} = 4,096$ unique paths. Furthermore, despite the choices, the story is still, at its heart, linear and constrained by the author.
Modified Branching Plots

There are other ways of implementing branching that prevent some of these limitations. These are often referred to as parallel paths. For example, there is the branching have varying game experiences, but the road eventually leads back to the spine. This keeps the paths from growing exponentially.

Alternatively, the author might offer a set of junctures, usually toward the end of the game. Here, after experiencing the same rising action sequence as everyone else, the player is presented with a choice. For example, at the end, the hero might have the option of keeping all of the treasure she has accumulated and going evil, resulting in a climax that is different than the one for the player who chooses to return the treasure to the proper owners. This gives the game alternate endings, but still keeps the game fairly constrained and allows for the vast majority of game content to be enjoyed by all players [Sheldon04].

Modular Storytelling

The modular storytelling structure is a relatively new concept [Sheldon04]. It is a new method where the nodes of the story can be experienced in any order, and the plot is in films that are told out of chronological order and yet the arc of the story is still understood by the audience. In a game, the player has complete control over which area of the story to explore next and can move through the story at his whim. This can lead to a difficulty concept to grasp, and very challenging to implement as it removes some some of the simplicity in the plot can wind up looking like a ball of yarn. However, it is a challenge to implement as it removes some of the simplicity in the plot can wind up looking like a ball of yarn. However, it is something new and interesting happens. It really doesn't matter in which order the days happen. Each day is a story in and of itself, and they add up to one large experience, or story, called a vacation. Stories of this nontraditional type can be very immersive and can be a sound way of granting a player a new experience.

Nonlinear Plots

In contrast to the linear plot on a rail, is the sandbox game where the game elements are not as formally scripted. Instead, the player is given an environment and a set of tools to manipulate that environment. Content is implicit and is made up of stories, goals, and objectives that players create for themselves, and these can be completed in any order the player chooses. The story comes from what the player thinks and feels while playing the game. This is most often seen in simulation games, such as The Sims series.

Quasilinear Plots

Some games combine the elements of linear and nonlinear plots. This can be an effective method of making players feel as if they have free will within the game, while keeping the main story along a prescribed path with one fixed ending. Basically, linear gameplay is being integrated into a nonlinear world [Bakeman07].

For example, the player has free access to what would appear to be the entire game world. He can wander the map at will. However, there are dungeons or missions that unfold in a chronological order. The player must complete "dungeon one" before entering "dungeon two." To add to the illusion, the player can enter dungeon two first, but won't have the skills necessary to defeat the monsters. In this way, the player feels like where he or she goes is their choice. In another example of this, the world is open to exploration, but missions are given in a particular order to be carried out within the already open world.

The quasilinear plot can be seen in some of The Legend of Zelda games and in the Grand Theft Auto series. No matter what decisions or actions the character chooses in the main game world, the outcomes and ending are the same. All players will see the same cut scenes and experience the same basic story. Players might start businesses, purchase clothing or weapons, earn extra money, or take up a hobby, however, despite these decisions, all players will eventually wind up in the same locations and will experience the same game ending. This can be a very effective method of giving players the feeling they are in control, while still keeping the explicit narrative controlled and keeping the story constrained. The effect can be so concealed, that oftentimes these types of games are referred to as sandbox games. This is technically incorrect as the linear mission structure forces the player to stay on the path in order to reach the prescribed ending.

Another model that has elements of a linear plot, but is not truly linear, is one that allows the player or character to move away from the main plot and move through side quests and subplots. These side quests might advance the character, add interesting, yet nonessential plot elements, or change a player's faction. Ubisoft's Far Cry 2 works similarly to this. There are a handful of plot points and transitions that the main character must pass through, such as the character awakening in an old slave outpost after becoming unconscious. Between these plot points, the player can choose which missions to take and in which order, who to help, who to betray, and which weapons and vehicles to use. Or perhaps the player would like to go on a quest to collect all seven pieces of epic armor, and this quest takes him to all corners of the world. The game can be completed without this armor, but some players will take great pleasure in ensuring that their character has the best gear possible. These side quests will give the game a very open and interactive feel, while still providing linear progress [Chandler07].
The backstory, which consists of all relevant parts of the story that occurred prior to the story opening, is often an important part of whom a character is and why he is where he is and why he has to do what he has to do. However, uncovering a backstory can be tricky. It is often instinctive for a writer to want to present the audience with the backstory all at once in the beginning. Doesn’t the player need to know these details to understand the story? Usually not. Often times, giving it all to them at the beginning backfires, and the audience winds up feeling dumped upon and wonders why they are given all this information about a person they have yet to care about. It is equivalent to hearing your Aunt Myrtle drone on and on about a childhood friend. The audience is left thinking “so what,” and this is not a good way to grab attention.

It also has the effect of ruining the suspense. Part of the mystery is discovering what led the player to be in his current predicament. It is okay for the audience not to know, and, in fact, it is intriguing to them. It causes them to ask questions and then want to know answers, further engaging them. Another problem with presenting the backstory at the beginning is that the player doesn’t know what details are important to focus on, or what details are important from the backstory. This means that key information presented here isn’t always absorbed and is often quickly forgotten.

Instead, it is preferable to drop a player in the middle of the action, engaging him immediately, and then have the backstory unfold through plot and narrative elements. This is especially true in games, where the impatient player wants to get right to the action. Though many games in the past have used cinematic cut scenes at the beginning of a game, this is not always the best place for them, as they often go ignored. Some players do enjoy this, so it is okay to include them, but just allow the player the option of skipping the cut scene and make sure that any essential information in the cut scene is given to the player in another form elsewhere. Don’t forget that in games, unlike written stories, the story is there to serve the game and that the goal is active engagement and interactivity, not passive absorption.

So, if there are details from the past that the player needs to know to understand the storyline, allow those details to be uncovered through active gameplay. For example, if you need the player to know that he is an orphan, have him meet someone that he knew in the orphanage. If he is in a destroyed city that was brought down 20 years ago in an alien attack, have clues in the environment, such as signs, posters, radio broadcasts, city alarms, and anything that is natural within the environment. Backstory does a good job of this in uncovering the details of what happened in the city. Rapture, prior to the start of the game. You can also add NPCs that say things like “Yes, ever since our city was destroyed by aliens 20 years ago, fresh water has been hard to find.” This way, the player learns about the backstory actively and while engaged, instead of passively absorbing it.
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This also increases his suspension of disbelief, which means that the player will be so immersed in the game world, that details that defy real-world logic are accepted for truth. This is what allows us to believe that Harry Potter is capable of performing magic. Only when someone is truly immersed in the story can he experience this.

The Spine

The spine of the game consists of all of the narrative elements that are absolutely necessary for the player to experience in order to complete the game. The game can have many side-plots and sub-plots; however, in the spine are the only plot points that the player must pass through to progress in the game.

With a linear game, the entire narrative is contained in the game spine. On the other end of the spectrum is the sandbox game where there is little or no spine to follow and the player chooses which plot points to experience, if any at all. In the middle are the games that have a clear spine, but the player is allowed to wander away from the path, performing subquests, exploring, and generally interacting with the world. For example, in Table 2, the main character can purchase property, get married, take jobs, and help out NPCs, but none of these actions affect the spine of the game or the overarching plot.

The Golden Path

Along with the spine is the golden path. The golden path is the optimum path a player would take through the game in order to experience the game as intended and to experience the maximum rewards. It is the duty of the writer to encourage the player to stay on the golden path and force him to return to the spine, without making it feel unnatural. The player needs to know the reason to move to the next area and perform the next task. It doesn’t work to merely tell the player “now move onto the library,” or “now kill the emperor,” without giving him a reason to do so. The writer must provide appropriate motivation for the player to execute the next task.

The writer must also have in place a mechanism for dealing with a character that chooses not to execute the next task. What if the player decides he doesn’t want to go to the library? The writer must have a plan in place for when things don’t go according to plan, because the player’s motivation does not always match that of the motivation written for the character. In another case, what if the player somehow fails to pick up the directions to go to the library next? The player should not be forced to wander around aimlessly. Therefore, hints need to be added to the environment causing the player into what he should do next, and elements need to be built into the game writing that direct the player back to the golden path.

Keeping the Player on the Path

There are some simple methods for dealing with this issue, but most of them come at the cost of player immersion. For instance, redirection is easily handled if the character has an internal monologue and the character basically tells the player what his or her desires are. This detracts from player immersion, however, and causes a rift between player and character. It points to the obvious discrepancy in player desire vs. character desire. Another simple method is using a map. Here, a line is drawn on a map, or appears along the path in the game world, that physically directs the player where to go and find the task at hand. Again, this can detract from immersion, but the player still maintains the choice in whether to follow the path or not.

Another less-subtle alternative for motivating the player is the use of NPCs. In this case, NPCs might refuse to talk to the player about anything but their next task. Alternatively, they might offer reminders, advice, or encouragement that lead the player in the correct direction. The more direct the NPC’s dialogue, the more effective in pushing the player in the right direction; however, the cost is that it feels less interactive. Preferable are comments where the directions are cleverly embedded in the speech, while the rest of the NPC’s speech is creating deeper meaning to the game and its world of characters. The existence of a journal is an additional, frequently employed tactic to keep the player focused. All vital information that is presented to the player is saved in a journal that the player can refer to at any time. That way, if the player somehow misses a key plot element, the journal will document the necessary tidbits and lead the player back to the golden path. This is also useful for players who return to a game after a lengthy break. They can consult the journal and pick up the story right where they left off.

For a game to be truly immersive, more subtle means should be explored. One method employed by theme parks is to place highly visible, intriguing items that draw the players in and interrupt them from their aimless wander. This way, players are guided toward the items, but are still moving toward it of their own free will [Cook99]. Another subtle method is to keep primary objectives on a wider physical path, while side quests are placed, literally off to the side, with smaller roads leading to them. The size of the road can cue a player consciously or subconsciously where the important things will be found. Whatever methods are employed, they should be as unobtrusive as possible.

Algorithmic Interactive Storytelling

Can a computer algorithm dynamically create unique original stories around what the player does? It’s a compelling idea and one that has seen a great deal of exploration from academia. All researchers in the field refer to it as narrative intelligence. Certainly, algorithms can be employed to understand what the player has done and how to bend the story slightly around them, but what is being proposed by many researchers in this field is something much more ambitious.

A few game designers who have been working on this problem, such as Chris Crawford, believe that algorithms can create architecturally valid stories, but that only artists can create stories that are interesting to humans [Crawford99]. To exacerbate the problem, there exists no rigorously objective measure of success for such an algorithm, since a successful story is inherently subjective and can only be accurately
judged by humans. However, this might be a straw man argument since the short-term goal at least is not absolutely unique stories, but rather varied and compelling stories based on copious amounts of background, material, structure, and pre-engineered characters. Such algorithms can dynamically adapt characters and plot a story, sub-story, or conclusion through recombination and randomness, all based around the actions of the player (Ong03).

The approaches around algorithmic interactive storytelling are extremely varied and diverse. Some approaches concentrate on plot construction while others are character-based. Plot-based systems might use story templates to guide the plot or break the plot into many subplots that can be algorithmically planned. Character-based construction involves changing a character’s opinions and beliefs as a result of interaction with the player; thus, having the character drive the story through their modified needs and wants. Since characters and story are inextricably linked, various approaches must consider both, but the emphasis may be on one or the other.

One of the most successful examples of algorithmic interactive storytelling is the game *Facade*, which can be downloaded and played for free (Matesa09). In *Facade*, the player is inside an interactive drama where he must engage with a couple, Trip and Grace, who are having marital problems. The player has significant influence over the events that unfold and how the story concludes. This is accomplished through an algorithmic drama manager that guides the characters by adding and removing behaviors and speaking points. The plot’s dramatic arc is constructed dynamically by sequencing story “beats” (small segments of story) based on the moment-to-moment interactions with the player (Matesa03, Matesa05). As a whole, the game *Facade* has had a positive impact on the game industry by proving that an algorithmic interactive story is both feasible and compelling. However, it is still an area of active research, and most published algorithmic solutions from researchers remain untested in large commercial games.

**Story Mechanisms**

In order to move the plot forward, the player must be provided with needed story information. There are several mechanisms to achieve this goal and to ensure the information is conveyed to the player. These include cut scenes, scripted events, artifacts, nonplayer characters, and internal monologues. These mechanisms are usually prompted to occur via a triggered event.

**Cut Scenes**

Cut scenes have been a part of conveying story elements to the player since the mid-eighties with the eruption of the LucasArts adventure games. They have ranged from short camera changes, where the player sees something happening elsewhere in the game world, to cinematic masterpieces. They can consist of prerendered full-motion video, created separately from the game engine, or they can directly use the game engine and game graphics. What the various types share though, is that they take control of the action away from the player, and should be used with caution.

However, there are situations where cut scenes are called for. For instance, there are many players that enjoy a well-orchestrated cut scene, and sometimes view them as rewards for completing a level. They also work as a way to slow down the action and create a rest point after a stressful boss battle. This change of pace can be refreshing. On the other side are the impatient ones, which will always bypass the cut scene if it is in any way possible. Those types of players view the cut scene as an obstacle to move past as quickly as possible. To satisfy the latter group, it is important to allow the player to fast forward, or to skip the cut scene. This means that key plot points should not be unveiled in only the cut scene, and that information necessary to complete the game should also be available elsewhere. This could be unveiled through the action, or simply be added to the player’s journal if they have one. Just make sure that if you allow them to skip the cut scene, it does not hurt later gameplay.

Allowing players to skip cut scenes means that the resources devoted to them will not be enjoyed by all players, and this could be frustrating to the team that put forth the effort to create the masterpiece. Decide if it would be better to use those resources to enhance gameplay rather than create an expensive and space-hogging cut scene. If the team decides that a cut scene is worth the extra time and money to develop, by all means, include one. Just be aware that for some people, it will detract from, rather than add to, the immersion.

**Scripted Events**

Scripted events are another way of conveying necessary plot information to the player. During a scripted event, the player generally no longer has control over what he sees and does. This can be done quickly—for example, when a character enters a scene and the camera moves to show a battle set full of enemies the player will soon be encountering, or it can be elaborate and show entire conversations or action sequences of NPCs.

In *Call of Duty 2*, an example of a scripted game event occurs when the character is shown carrying a teammate or kicking down a door, which are both actions that the player interface doesn’t allow the player to perform. *Half-Life* and its sequel also demonstrate good use of scripted events. As Gordon journeys through the game world, he sees NPCs being dragged into air ducts, scientists fighting off head crabs, and soldiers being dragged away by alien invaders. These events help to immerse the player in the world and bring the world to life.

Table 2 also shows good use of scripted events. What is interesting about Table 2 is that the player still controls the camera and can choose what to watch during the event. This also adds to the player feeling more in control. Scripted events don’t always take control away from the player. For example, in *Mafia*, in the case of escort missions, the player still controls the character, but the actions of the person they are escorting are scripted and out of the player’s control. You can watch what they do, but if you leave them and go too far away, the mission resets.
While a cut scene can be considered a scripted event, and there is some ambiguity of terms at this time, generally a scripted event is one that is programmed into the scene using the game engine and shows the action that is taking place in the current scene. Usually, cut scenes are prerendered and show plot pieces that took place in the past or are taking place elsewhere in the world. For the most part, scripted events have been well received in recent games and are a good alternative to conveying story when interactivity is not possible. A small warning about scripted events and cut scenes: Do not force the player to experience them repeatedly. For example, in a game where the player must restart a level if they fail the objective, do not force them to watch the scripted event each time through. Allow them the choice to skip it, letting them decide if they sufficiently understand the scene. Being forced to watch the same scene each time through can be annoying to the player and should be avoided.

Artifacts
Another way to convey the storyline to the player is through artifacts. Artifacts are items like posters, radio broadcasts, journals, letters, photos, CDs, laptops, and other items that contain information that advance the narrative. Leaving information on artifacts to be discovered by the player leaves the player feeling in control. They can choose when and how long to view the item, and they decide what significance it has to the plot. The trick here is to keep the player's interaction with the item brief and the amount of information small on each item to prevent the player from being overwhelmed by information.

Nonplayer Characters
Well-written nonplayer characters (NPCs) are essential for creating an immersive experience. A good NPC should possess individual desires, goals, needs, beliefs, and attitudes and should not merely be a fountain of information (Spector '07). Even if the player is never explicitly told what the NPC's specific attitudes and beliefs are, by writing them and a backstory for the NPC, the NPC becomes much more lifelike and believable. If the player empathizes with the characters and understands their motivations, the information that is received by the player becomes much more meaningful. The player feels more motivation to complete the given tasks.

Ideally, each time a player has an encounter with an NPC, the interaction should be unique. In the real world, people don't repeat themselves and respond in exactly the same way each time they are spoken to. Characters that act the same describe each time the player encounters them can quickly put a damper on immersion. Therefore, when a character revisits an area, the NPC should have a new script to follow. Even if the information the NPC is conveying is exactly the same as the last time the player spoke with them, they should say it in a different way. For example, the first time a player asks a question, the NPC responds pleasantly. Each time the player returns, the urgency of the request could increase, or the NPC might begin to exhibit annoyance or accuse the character of having a crush on them. Keeping conversations changing and still appropriate isn't easy, however, and can involve some high-level artificial intelligence (Kowalczyk '96).

Some games employ the use of companion characters to join the main character on their journey. These characters are designed to provide pertinent information to the player and keep them on track. Far Cry 2 features very well-developed companion characters, offering 12 in which each has a different role in the game. The player can choose whom to spend time with, in turn influencing the path of the game. The companions can greatly help in the completion of missions, or might try to lead the hero astray. Table 2 features a dog as a companion character. In this case, the companion helps find hidden treasure and alerts the player of oncoming danger. Companion characters can be an innovative and immersive way to transmit needed information to a player.

Internal Monologues
The internal monologue is the self-talk that goes on inside a character's head. If implemented correctly, the internal monologue can be a good method of conveying the story and essential information to the player. This only works if the voice is that of a professional actor and the writing is top-notch. Imagine a character, upon running into a wall, says, "Ouch, that hurt." in his head. Later, the player hears the character wonder to himself, "Hmm, what is behind that door?" prompting the player to open the door. This tool for forwarding the story can be seen in Max Payne and the Splinter Cell series. In Area 51, this internal dialogue is presented during loading screens and gives the player insight into the emotional state of the character and creates more empathy toward Ethan Cole's character.

The internal dialogue can also be used to funnel a character back to the spine or golden path of a game. She could say to herself, "Wow, I'm running out of time. I'd better get that bomb disarmed." One thing to be careful of while using this technique is to avoid repetitive dialogue. She should not say, "Wow, I'm running out of time," repeatedly, instead the dialogue should change and become increasingly urgent. It gets annoying to hear the character say the same lines of dialogue repeatedly. Also, lengthy dialogue is to be avoided. The thoughts should be kept brief and to the point. Nonessential thoughts can be included, but they should somehow still relate to the gameplay. A final warning is to not have internal dialogue be triggered during heavy action sequences, unless they directly relate to the action at hand. When a player is heavily engaged, he or she might miss crucial elements of the speech, or find that it distracts them from what they are currently trying to accomplish.

Triggered Events
A triggered event is one that is preplanned into the script and is prompted to occur once the player has activated a certain mechanism in the game. For example, if the
character opens the kitchen door, it might trigger an onslaught of zombies that come stumbling out of the kitchen. Or if the player falls at the end of a dungeon, it might trigger an NPC to step out of the dark and thank the hero and offer a reward. A trigger could even be as simple as the character entering a new area. In all examples, the event is prompted by some sort of character action.

**Interactive Story Techniques**

In an interactive story, it is important that a player feels empowered to make choices. However, creating player choices can be expensive, time-consuming, and generally outside of the scope of the project. However, there are some tricks to fool the players into thinking they have more control than they do and to keep the illusion of greater player agency. This is similar to telling a child that she can choose to wear the red dress or the blue dress. The child feels like she made the choice, but by placing parameters on the choices, the parent is the one controlling the decision and making sure the child is tired appropriately [Krawczyk06]. By creating the illusion, the player feels that what he is doing has an effect on the game world; however, these actions do not have any effect on the eventual outcomes in the game.

This technique is used frequently in Table 2. The hero can make many choices along the way. The choices he or she makes will affect things like where they live, who they marry, what they buy, how much money they have, and who their friends are, but not the major plot points. This makes the player feel like it was them, rather than the writer, who created this unique character that they can now control. The open world also creates an arena for a great deal of implicit gameplay, where the player is allowed to create stories and subplots of his own. However, these choices don’t change where the story eventually takes the character.

An idea that can be borrowed from modular storytelling is to create a narrative that will still make sense when encountered out of order. Think of each event as a piece on note cards. Try shuffling the note cards and see if there are events that can occur out of sequence. If this cannot be achieved, work with the events until you can. Once you have some story modules that don’t need to be in sequence to further the story, you can allow the player to access them at will.

If the note cards fall into groups, it might be beneficial to try to use them to gate the story. Gating the story is a method of creating the illusion of agency where the challenges and plot points are grouped, and can be encountered in any order within their grouping [DeMarter07]. This way, while each plot point is not encountered in a linear manner, each grouping is. One way of keeping a player within a group is not giving the character a type of skill or enough points until he has completed all of the challenges within a grouping. He can go to later groupings, but will be unsuccessful in his attempts to defeat the later challenges. A writer can go further and allow different choices to affect what challenges the player will encounter within the grouping; however, inevitably, all characters will wind up experiencing the same number of groupings.

Another trick to making the game world seems more interactive is to make the world more dynamic. Allow the player to tinker with and interact with the game world as much as possible and show the player things that are happening outside of his own story. The story isn’t just about the character, but the story exists in a living, breathing world. Let the player do things like flush toilets, turn on faucets, lay down on beds, turn off lights, and mail letters. Any one of these things can be used to trigger a dramatic event, that is, essentially, caused by the player.

Imagine for example, the character is allowed to break windows and intentionally breaks a storefront window. Later, when he enters the area, it triggers him overhearing a conversation between the shop owner and the glass repairman that are now fixing the broken window about “kids these days.” Alternatively, he could flip a switch in an apartment building that shuts down power to the entire building. Later, he might hear a woman on the bus complaining that she is late to work due to the power being turned off in her building. This type of dynamic world is seen in Grand Theft Auto IV. It is possible to cause a car crash between two NPCs and then step back and watch the drama unfold. The two parties involved might jump out of their cars and begin fighting and then the people on the street may join in. Emergency vehicles arrive on the scene, and it turns into utter chaos. All of this drama is caused by the main character; however, it really doesn’t directly affect the character or the plot. It just adds to the fun and interactivity of the game.

**The Director**

Another method for making a story interactive is to employ a director entity. This entity would perform the task of game master from a traditional pencil and paper role-playing game. The director evaluates the current state of the game and decides which set of obstacles to give to the player next [Cooper08]. This was the method employed by Left 4 Dead to control pacing and enemy spawns based on the character’s current stress level. This concept could be extrapolated to pertain to storyline. The director would evaluate in real time what obstacle would be most appropriate to present next to the character, based on what the player has previously accomplished. This could also result in multiple endings.

Finally, take full advantage of implicit narrative and the types of stories people create for their characters. For example, it is possible in many games, especially the sandbox style, to steal without a direct consequence. It doesn’t affect factors point or alliances; however, it makes the players aware that their character is a thief. “Thief” becomes part of the identity of the character, even though it wasn’t written into the script. Or perhaps there are many abandoned apartments in the city and the player chooses to make one of them a home base. They were never told to do this, but by doing so, they have created ownership within the game. The more open a world is and the more options a player has for creating his or her own story, the less narrative that has to be written into the game.
Characters

Character writing is another responsibility of the game writer. A well-written character can bring a story to life and make the experience more memorable for the player, suspending his disbelief and allowing him to become lost in the game. The goal of a well-written character is to evoke emotion within the player and to cause him to have strong feelings toward the characters. For example, anyone who has played Pastel will immediately recall Glados, the quirky, psychopathic, robot boss and the frustration she caused the main character. She was so well written that some of her lines of dialogue have reached iconic proportions. These feelings created by characters can provide a strong motivation for the player to move forward through the game. For instance, creating a really vicious and convincing villain will make a player feel enraged toward them, and the villain's timely defeat will bring a much greater satisfaction to the player than a ho-hum stereotypical villain.

In order for a game world to be convincing and immersive, the characters that exist within that world need to be compelling and three-dimensional [Sheldon04]. Because the characters are three dimensional, they need to be built upon a frame to provide support, otherwise they are no more interesting than a pile of go. A large part of this frame is composed of the character's backstory. This includes all the major details that brought them to this point in their lives and explains why they are in their current emotional state. The audience need not know all the details of the history, but by providing one for the character, it deepens the character and makes the elements of his character make sense [Krawczyk06]. The character needs roots, and these roots should show in what the character says and how the character acts.

The other part of this frame is the character's attributes, such as his motivations, goals, aspirations, attitudes, character flaws, and temperament. Ask yourself, "Why is this person here, and what do they want?" The more layers and depth built into the character, the more alive and human they will seem and the more they will strengthen the player's feeling of immersion. Again, the audience may never overtly see these attributes. However, by the writer knowing these attributes and taking them into consideration when writing a character, the character and their dialogue become that much more believable.

A trick for adding believability and defining and strengthening characters is to deliberately design flaws into the characters. For example, a companion NPC might be scared of dogs, or have a really short attention span, which might get him into a bit of trouble. Adding character flaws can add humor, interest, and realism to the story and further enrich the game world. Character flaws can also be beneficial to add to the hero. A hero that is just a wee bit too arrogant could cause fun things to occur in the storyline as his mouth gets him in trouble. As long as he is a likeable hero, his flaws will not only be tolerated, but will also make him seem more authentic and human.

Additionally, watching NPCs perform and have a life outside of the interaction with the character also makes them more believable. Frequently in games, NPCs seem to just stand in one spot all day, every day, just patiently waiting to talk to the hero. Their only job in the game is to transfer information. This is not only boring, but neglects all sorts of possible opportunities to enhance the game [Sheldon04]. A better alternative would be for the NPC to be busy doing things that are in character whenever he is not actively being spoken to. For example, the NPC could be a gossip, and every time the hero nears him, it triggers an event, and he overhears him relaying some juicy tidbit. Then, instead of clicking on the character to get his attention, the NPC initiates the conversation with the player character. This is much more dynamic, and also allows for later drama when the NPC's gossip could get them both mixed up in some trouble.

Having rich supporting characters can open up new storylines and help with the game story by providing reasons for extra quests and content. This is enhanced by writing characters that the player will feel sympathetic toward and want to help. If the player likes the person sending her on a quest, she will feel much more motivated to help him and will receive more satisfaction upon completing the person's request. The hero and player should have feelings of empathy toward the NPCs they are trying to help and be able to understand their plight. Furthermore, the relationship between the hero and the supporting characters should evolve over time and change upon increasing interaction. If a hero repeatedly visits an NPC, the attitude toward him should change and become increasingly friendly, or wary, depending on the relationship.

When playing a game, the player often projects parts of himself onto the hero. This means that the hero's identity is made up of both the attributes written for him and the attributes of the player. Therefore, it is important to make a hero that a player will be able to identify with. Furthermore, because players being so much to the character, it is not always vital to create a rich hero. Think about iconic video game characters such as Link, Solid Snake, Samus Aran, and Lara Croft, and you will realize that while compelling, these characters are actually rather shallow and undeveloped in comparison to anything you would see in a novel. The characters are, however, incredibly sympathetic and trustworthy. They possess traits that people want to have for themselves and whatever is lacking, the player fills in with his own personality. Simplicity can actually work to the advantage of the game writer when writing for the hero, because creating traits in a hero that a player cannot identify with can ruin the experience for the player.

The hero is often the most memorable part of a game, more so than the storyline. In fact, the profits that a well-received character can create for a game studio through commercial franchise can be significant. The most well-known characters are made into all types of commercial products such as action figures, movies, lunchboxes, posters, and even books. There have been occasions where the commercial products produced from a gaming license have produced more profit than the game itself. Because of the power a well-written hero can have, a writer should ensure that the hero is one that will be well liked.
Dialogue

Video games have become notorious for cheesy, corny, and just plain bad dialogue. Hopefully, this will change as studios hire more professional writers and actors. While good dialogue writing is an art, there are some things to be aware of when creating dialogue. For one thing, the writer needs to know if the words will be delivered via audio or text. Spoken dialogue usually requires a different tone than written dialogue. If voice actors are to be used, they need to be aware of the history, background, and goals of the characters they are reading. For the writer, it is not enough that the character and delivery style of the lines is clear in his own mind, he needs to make sure this is clearly conveyed to the actors.

Furthermore, a video game is not a place for lengthy expositions, no matter how well written. Dialogue should be fairly brief and to the point, while still keeping it conversational and in character. A short delivery also makes it more likely that the player will absorb what was said. If the dialogue is too long, much of what was said is often quickly forgotten by the player. By keeping it brief, it maintains the pace of the game and keeps the focus on the necessary facts.

However, players do not usually take kindly to orders without being provided with some sort of motivation to follow them. When giving players directions, it is important to make sure they not only know what it is they have to do, but why it is they have to do it. They need to know, and care, why it is so important to the NPC that they go and find the NPC's hot amulet. It would also be important in this situation to provide a reason for the NPC to want this amulet. Why is it so important to him and how does getting this amulet help him or her achieve their larger goal? By fleshing out the motivations behind an NPC's actions, it creates a more human-like character. It makes the game feel more compelling and authentic.

While the standard method of interacting with an NPC is to walk up to its avatar and click a button that initiates the opening of a dialogue box, there are other methods that can be employed. For instance, instead of the player initiating the conversation by clicking on the NPC, some other, less obvious trigger initiates the conversation, such as getting close to the NPC. Then the NPC is the one that initiates the dialogue. This can be done in interesting ways, like having an NPC flag the character down or follow them around. Or conversations can take place through other means rather than in person, for example, through walkie-talkies, cell phones, e-mail, secret hidden notes, or over loudspeakers. Varying the way a player receives information through dialogue can add interest and keep the game from feeling stale.

Dialogue Trees

The dialogue tree is a commonly used method for experiencing a conversation in a game. Good examples of the use of dialogue trees can be seen in BioWare's Star Wars: Knights of the Old Republic, and Mass Effect. A dialogue tree is basically a graphical flow chart of conversation where the player chooses what to say to an NPC from a menu.

Summary

While traditional writing, such as that for novels or screenplays, shares much with game writing, game writing offers some unique challenges. It is a great deal more complicated than traditional storytelling, with writers having to deal with things like multiple storylines, player choice, and technical limitations. It is imperative that a writer understands these challenges and knows techniques for dealing with them. As more games begin to incorporate stories and genres continue to merge, the challenges will increase. That is why it is of the utmost importance for game writers to be aware of the target audience for the game, as well as the funding and game engine limitations in order to keep their writing within the scope of the project.

Furthermore, there is a growing demand for the interactive story. While traditional storytelling techniques should be understood and incorporated into the game, it is not enough, and further methods for dealing with interaction issues need to be incorporated into the writing. There are many methods for adding interaction to the narrative game, and the writer needs to work with the developer to decide which methods will work best for the type of game being developed. Currently, hybrid approaches are the best way to grant the player the illusion of interaction and player agency, while still keeping the game constrained enough to fit within the limitations of a project. The future, however, might allow for more experimental interactive storytelling techniques that combine artificial intelligence with narrative, creating entirely new gameplay experiences.

Exercises

1. Which type of character needs more depth: the companion character or the hero character? Explain.
2. Give an example of an exciting incident in film. Explain how this pivotal moment changed the direction of the hero or heroine's life.
3. In what game genres are game stories most likely to be well received? In what genres do you think there will be room for increased narrative elements and how do you see them being implemented?
4. Give two reasons why the writing is often the first place developers make budget cuts when funds start to run low.
5. Explain the difference between a branching plot and a modified branching plot.
6. Describe player agency and explain why it is important to a story being interactively.
7. What are some ways to make an NPC seem more authentic?
8. Research ways in which artificial intelligence is influencing interactive stories.

References

[Cooper08] Cooper, Simon; El Halabi, Abdenour; Merabi, Majid; and Price, Mark, "Dynamic Interactive Storytelling for Computer Games Using AI Techniques. GDTW 2008.
[Mateas06] Mateas, Michael, and Stern, Andrew, Façade, available for free online at http://www.interactivestory.net/