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The Brain That Couldn't Die: Active Storytelling in Video Games

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Over the past few years, there's been no shortage of discussion about using video games as storytelling media -- how to do it, how not to do it, how it's ruining games and should never be done. Almost all the discussion starts with the same basic assumption, that "video game storytelling" is the uneasy combination of two fundamentally opposing elements: story and gameplay.

The idea is that story -- defined here as the developer's narrative -- is inherently passive for the player. Gameplay, on the other hand, is inherently active. Since the defining characteristic of interactive entertainment is interactivity, it would seem that story and gameplay aren't just in opposition, but downright antagonistic.

That hostile environment is the cause of the start-and-stop storytelling so pervasive in games. Most single-player, story-driven games still follow the same model: interactive segments punctuated by non-interactive sequences.

As cinematics get more sophisticated and interactivity more streamlined to appeal to mainstream audiences, the result is players feeling like they're running down long, narrow corridors separated by cutscenes.

But the clear division between "active" and "passive" is based on overly simplistic assumptions about how traditional media works. These assumptions fall apart once we stop looking at storytelling as one-way communication from creator to audience, and instead see it as an active dialogue between creator and audience.

The idea of story as conversation, with the audience actively engaged with the storyteller as the story's being told, isn't a particularly new one. And it's not unique to video games, either. There's an entire genre of traditional "passive" media -- horror and suspense movies -- that depends on this type of interaction to work at all. In fact, it's so ingrained in the genre that a lot of really bad movies get it right without even thinking about it.

Full-Duplex Storytelling

Before getting into a discussion about how horror movies will save video games, it's important to establish why game developers should be looking to film for inspiration at all. After all, developers and players are quick to point out, it's the clumsy attempts to duct-tape movies to games that have caused that disconnect in the first place. Games don't work like traditional media, so they shouldn't be directly emulating traditional media. The most extreme version of this argument says that games aren't media at all.

But the problem isn't that traditional media and interactive media have nothing in common. The problem is that we've gotten skilled at aping specific techniques of traditional media, but not at merging them into a unified experience. We can present stories to the player like traditional media does, but we don't keep the player engaged in those stories like traditional media does. To borrow a term from telecommunications, video games still operate in "half-duplex" mode. The developer can speak, and the player can speak, but only one at a time.

When we follow the typical cutscene/game level/cutscene model of storytelling, the player feels as if his actions have little bearing on the story that's taking place in the non-interactive moments. When we compensate by turning more control of the narrative over to the player, he can feel as if he's telling a story to himself. Players have the freedom to tell whatever story they want, but quickly realize that no one's listening.

For a player to feel like an active participant in the storytelling, the game needs to operate in "full-duplex" mode. Throughout the game, both the developer and the player are both speaking *and* listening, and both at the same time.

That's why it can be useful for game developers to look to traditional media like film for inspiration. A filmmaker has to maintain a constant level of engagement with the audience throughout the story, but unlike a game developer, he doesn't have the luxury of relegating the audience to a walled-off sandbox, where the audience's version of the story can't interfere with his own.

Good filmmakers appreciate that watching a film isn't a completely passive experience. If it were, there'd be no complaints that a plot twist came out of nowhere, or that the story was too predictable. Audiences are constantly questioning what they're being shown, forming connections with what they've been shown before, and making predictions about what they're going to be shown next. The best filmmakers aren't just aware of this kind of audience engagement; they exploit it.

The Calls Are Coming From Inside the Ice Level!

Horror and suspense films are most relevant to developers making storytelling games -- any storytelling game, not just

survival horror -- because the ways that audiences interact with horror stories are similar to the ways players interact with video games:

Challenge. There's something of an adversarial relationship between creator and audience. Audiences often challenge a horror movie to scare them. Players describe completing a story game's narrative as "beating" the game.

Experience vs. Narrative. Horror and suspense movies are often compared to roller coasters or thrill rides. The narrative isn't necessarily ignored, but it isn't the main draw, either. Audiences are more interested in the experience itself.

Rules. Horror films, especially slasher movies, tend to use certain tropes so often than they've surpassed cliché and become rules. The core gimmick of the Scream series was making those rules explicit, and then carrying them out.

Any character shown being promiscuous will be killed soon after. Saying "Thank God it's over" or "I'll be right back" invariably results in death. Minority characters are typically the first to go. The most obnoxious character in the cast is the second-to-last to be killed, usually after betraying the others in order to save himself.

Iterative Systems. Along with the rules, many horror films, slasher movies, and monster movies follow a common structure. The characters are introduced and taken to a remote location. A monster/serial killer/genetically-altered insect swarm is tossed into the mix. Once the engine has been primed, the rest of the film plays out like a state machine, killing off characters in scenes with minor variations until the supply of available cast members is exhausted.

Gaming the System. Since these films so often follow a predictable set of rules and systematic sequence of events, audiences inevitably try to game the system. They make predictions about who's going to be killed, and in what order. They form theories about the rules of the system, and they continue to test those theories: how can the zombies be killed, what are the vampires' weaknesses, what's the identity of the killer in the hockey mask.

Audiences are never completely immersed in the narrative, but are actively engaged in the "game" of figuring out the narrative's structure before it completes.

Rhythm. Most importantly, gaming the system isn't just an unfortunate side effect of horror movie formula. It's a crucial part of how these films work. Horror and suspense films, even more than other genres, depend on a rhythm of tension and release.

The moments of tension work not because of what the audience is being shown, but because of what the audience predicts it's about to be shown. That type of interplay between creator and audience is most relevant to game developers, because it's the type of constant engagement and interplay that storytelling games achieve only intermittently.

From the Bates Motel to *Maniac Mansion*

What all of these things have in common is that the audience is never completely immersed in the story, but at least one step removed from it. The audience remains aware that what they're watching isn't real, but they're still completely engaged in the experience. They're not just passively waiting for the next scene or story development, but actively participating.

Alfred Hitchcock was a genius at understanding the psychology of his audiences, and exploiting that disconnect between the creator's story and the audience's story. His films are frequently described as being masterpieces of audience manipulation, but that implies a purely passive relationship between audience and director. Hitchcock understood that audiences actively participate in their own manipulation. We can look at the techniques Hitchcock used and derive some observations about audience psychology that also apply to video game players.

Acknowledging the presence of the storyteller helps the suspension of disbelief.

By the time Psycho was released, Hitchock was already well-known, both for his earlier films and for his television series. Even more than with his trademark cameos, Hitchcock cast himself in each of his films. Not as a character in the story, but as the dour, ghoulish old man with a macabre sense of humor, out in the audience presenting the story to them.

In the long-form trailer for Psycho, he starts the game with the audience by taking them on a tour of the Bates Motel and house, showing them the location of each murder and coming *just* short of revealing everything that happens.

There's a tradition in horror and science fiction films of presenting them as personal works of an individual: from Hitchcock, Rod Serling, and William Castle through John Carpenter and Wes Craven, to more current candidates like Sam Raimi and Eli Roth.

Certainly there's an element of auteurism, ego, self-promotion, and showmanship there, not to mention the more practical explanation that these films rarely have the budget to attract marketable names to the cast. But why is it so much more prevalent in horror than in other genres?

Part of it is because of the inherently contrived nature of these stories. With some notable exceptions like The Blair Witch Project and The Texas Chainsaw Massacre, horror films are rarely presented as being found footage or based on real events. The audience remains constantly aware that they're witnessing a story, if only because what's being shown is too fantastic or too horrible to be real. Acknowledging the storyteller acknowledges that disconnect and invites the audience to suspend their disbelief.

In *Sam & Max: The Devil's Playhouse*, we made the storyteller explicit with the character of The Narrator. This was primarily an homage to the movies and television series we were parodying: The Twilight Zone, Plan 9 From Outer Space, The Outer Limits, and even Alfred Hitchcock Presents. But from a game design perspective, it was intended to ease the player into a bizarre and convoluted story by acknowledging it as bizarre and convoluted, something the eternally

unflappable Sam & Max aren't able to do directly.

Of course, it's not always appropriate to break the fourth wall to that degree. But even when the voice of the developer isn't made explicit, it can still smooth over the disconnect the player feels when dropped into a fundamentally contrived situation.

This was particularly effective in *Portal*, with the character of GlaDOS. At the beginning of the game, when the situation is most artificial and the dialogue needs to be the most expository, GlaDOS functions as an explicit, relatively neutral tutor. As the story progresses, she develops more as a character and conveys more of the developers' sense of humor. There's no disconnect between the gameplay and story, because the game implicitly acknowledges the artifice of the gameplay and then seamlessly transitions into storytelling.

Audiences bring their own preconceptions to any story.

Psycho is Hitchcock's most famous (and over-analyzed) film, and the shower scene is its most famous sequence. The scene would be famous for its technical mastery even if it were completely removed from context -- there's a reason it's still standard material in beginning film classes. But what makes the film and the scene remain relevant is the way Hitchcock used it not just to shock the audience, but to completely overturn their expectations.

The audience seeing Psycho for the first time in 1960 went in knowing nothing about the story, but they weren't completely blank slates. They understood how Hollywood films work. One of the fundamental rules of a Hollywood film is that you don't kill off a name actress before the film's halfway point.

The shock that audiences felt after the shower scene wasn't just shock that Marion Crane had been killed, but that Janet Leigh had been killed. She was a relatively well-known actress, she received special billing in the film and its marketing, she was the main character on the poster. By the rules of Hollywood, she was guaranteed to survive at least until the climax.

The effect of killing her off is to break the audience's sense of detachment, to break them out of their comfort zone. Where William Castle sent skeletons on wires into the audience, or placed buzzers underneath their seats, Hitchcock reached into the audience by confounding their most basic understanding of how movies are supposed to work.

For game developers, the lesson is that players begin the game with an awareness of the rules, even before we begin the first tutorial. We can ignore this self-awareness, we can simply acknowledge it with a reference, we can defy it like Psycho does, or we can use it to reaffirm the audience's expectations.

The second *Maniac Mansion* game, *Day of the Tentacle,* has a great example of the last case. The game introduces a time-travelling and exchanging mechanic that it uses for the bulk of its puzzles, but it also incorporates its artistic inspiration. The art direction was heavily influenced by Warner Brothers cartoons, so those of us who grew up watching those cartoons are subtly encouraged to think in terms of cartoon logic throughout the game.

At one point, the player needs a distraction, and he's seen a cat rubbing itself on the underside of a fence. Once the player recognizes this as the premise that launched dozens of Pepe Le Pew cartoons, he's found the solution to the puzzle. It's a more profound "a-ha" moment than is typical for adventure games, because it breaks out of the context of the game world and into the player's world. It's a moment of connection beween the game designers and the player, over a shared memory.

Humans are natural storytellers.

Simply killing off a movie's star can generate some shock value, but it isn't enough to guarantee the story will resonate. (Dressed to Kill and Executive Decision haven't quite reached cinematic landmark status like Psycho has). What elevates the shower scene in Psycho from being just a gimmick, a well-edited but ultimately forgettable variant of a cat jumping out of a closet, is that it doesn't just confound the audience's understanding of how Hollywood movies work, but their fundamental understanding of how stories work.

Those of us who first saw Psycho decades after its initial release were already well aware of the famous shower sequence. But it's still shocking in its finality, because even if we haven't gotten attached to the character of Marion Crane, we've gotten attached to her story.

Hitchcock front-loads the story with intrigue -- a sex scandal! Robbery! Tension-filled police chases! -- and one of his MacGuffins in the form of an envelope filled with stolen money.

We spend the first half-hour of the film putting together the pieces of this story, only to have it suddenly and violently taken away.

After showing Marion Crane's lifeless body on the bathroom floor, Hitchcock immediately turns the camera to the bedroom dresser and the stolen money, effectively the only surviving element of the story we've gotten attached to. Then that, along with the body and the car, gets unceremoniously dumped into a lake.

It's another example of reaching out of the film to communicate directly with the audience and break them out of their comfort zone. The attack on Marion Crane is happening to someone else, so we can stay detached. But the attack on the story we've been formulating affects us directly.

Whenever we present an audience with the ingredients of a story, they're going to make a story out of it. The tension in horror and suspense films comes from the interplay between the creator's version of the story and the audience's version. The key thing for game developers to remember is that the player isn't waiting for us to provide the next story moment; they've already constructed their own version of how the story's going to play out. Violating their version of the story can be as intrusive as, well, running into their shower and stabbing them with a knife.

In *Grand Theft Auto IV*, the player's put in control of an immigrant with a mysterious and vaguely sinister past, set loose in a crime-ridden city with no orders other than to find his cousin. We're introduced to the cousin and some of the other characters in the neighborhood, and we get to know the personalities over the course of a few optional missions.

After finishing enough of these, we reach a story chokepoint, where our cousin asks us to kill someone. Without any prompting from the player, regardless of what the player thinks of his character or of his character's cousin, his character agrees to do it.

In *GTA IV*, there's nothing particularly jarring about being asked to kill someone. Killing people is why people buy the game; it's built into the premise, it's a core mechanic, and no one starts *Grand Theft Auto* expecting to play as a paragon of virtue.

What makes the decision in *GTA IV* so jarring is that the game presents an illusion of control over story development to the player, then yanks it away at a key moment. It doesn't feel like a nautral character development or even a surprising twist; it just reasserts the artificiality of the game world. The story ends up feeling superfluous to the player, because the player has no control over or investment in it.

The story is constantly progressing, even when the plot isn't.

One of the staples of horror movies is the "don't go into that room" sequence. Tension builds as a character slowly, deliberately approaches a door we all know she shouldn't enter. It's not limited to B-movies; it's an essential part of the genre. The Shining has room 237, Psycho has Lila Crane in the basement of the Bates mansion, and The Birds has Melanie Daniels walking upstairs to investigate a noise she heard in the attic.

Scenes like these are so fundamental to horror and suspense films because they establish a rhythm of alternating control over the story: exposition, set-up, tension, pay-off. The filmmaker's voice is most active during sequences of exposition, the audience's voice most active in sequences of tension. The filmmaker stops delivering his version of events and invites the audience to formulate their own version of what's going to happen next.

But in the typical single-player, story-driven game, the bulk of the player's time is spent in an extended "don't go into that room" sequence. There's no longer any rhythm, because the developer has effectively removed himself from the

storytelling -- the game is simply waiting for its next trigger.

There's no sense of pacing, because the game has turned responsibility for the pacing over to the player. There's no tension, because the player's well aware that the game's given him everything he needs to deal with whatever obstacle will be placed in front of him. Most importantly, there's no opportunity for the player to anticipate what's coming next.

Pardoxically, giving the player more control over the story doesn't result in the feeling of more control. Instead, it has the opposite effect. The player becomes reactive, not active. The game becomes a series of corridors for the player to run down, fighting off obstacles on the way to the trigger box for the next scripted event.

One way to address this, to re-establish the player's engagement in the story, is to re-assert the developer's voice in the conversation. Not with more cutscenes and scripted events, because these don't invite the player to participate, just react. It requires an ongoing series of environmental cues.

Each entry in the Final Destination series of horror films is built completely out of sequences of these cues and the resutling pay-offs. The film starts by making the premise of every horror film explicit: every character in the cast is fated to die.

Once that's established, the story takes a character to a location, shows a series of close-ups of the potentially lethal objects in the location, then gives the audience time to anticipate which of the gruesome outcomes is the one that's going to happen. These scenes are infinitely more engaging than simply showing the audience an elaborate death trap, because they don't rely solely on the filmmaker's imagination.

In the *Marathon* and *System Shock* games, and dozens of successors, the player discovers messages and recordings left by previous inhabitants. At worst, they just provide background on the developer's story, or "flavor text." At their best, though, they tease the player with what he's about to encounter.

In *BioShock*, the player hears these recordings as he discovers them, and they continue to play as he's exploring the environment. They're most effective in scenes like the New Year's Eve party in the nightclub, where the player hears one person's account of an attack as the player is surrounded by images of the after-effects of the attack.

Portal's most effective storytelling moment comes not in a cutscene, but in another piece of environmental art "accidentally" discovered by the player. What that moment did -- apart from launching an annoyingly tenacious internet meme -- was subtly and completely re-cast everything the player was doing.

It took a clever but artificial puzzle game and turned it into a story in which the player was participating. It introduced the possibility of escape. It affirmed the sinister nature of the test chambers, that had been hinted at by GlaDOS's voice-overs. And it transitioned the player from reaction to anticipation. She's still going through the process of solving the puzzles presented to her, but now she's looking at the puzzles in a larger context, trying to find an opportunity for escape.

Audiences are aware of the form of the story, not just its plot.

In The Birds, after Melanie reaches the top of the stairs and enters the attic, she discovers... it's full of birds. The anticipation was more important than the pay-off -- in a film called The Birds where a woman hiding out from bird attacks goes into an attic to investigate the sound of birds, there's little doubt what would happen. Still, the scene of the final attack might be Hitchcock's masterpiece; it's the culmination of every technique he'd used in this film, and experimented with in earlier films.

In a sense, the attic scene in The Birds is a successor to the shower scene in Psycho. Both were elaborately and meticulously orchestrated, and both play on the audience's expectations for effect.

But while the shower scene in Psycho was intended to be sudden, violent, and shocking, the attic scene in The Birds was designed to be unrelentingly horrible.

The editing of the scene is arrhythmic and disorienting. Shots flash by in a second or linger on the screen for just a little bit too long. The entire sequence lasts to the point the audience believes it can't take any more, and then goes on even longer. And then longer.

And as in the rest of the film, there is absolutely no musical soundtrack: the only sound is the flapping of wings, gasps, and the shrieking of birds.

Throughout The Birds, Hitchcock confounds the audience's expectations of a Hollywood film, not just with what he shows but with how he shows it. Audiences understand the language of film, even if it's only subconsciously, and by defying the traditional grammar -- unusual editing, awkward pacing, and the complete lack of music -- Hitchcock made the entire film feel eerie and unsettling.

It perfectly fits the tone of the story; the horror in The Birds comes not from violence and gore (although there is some of each), but from the characters' inability to explain what's happening or figure out how to stop it.

For game developers, there are two lessons: first, that games have multiple channels of communication with the player, and all of them are available for environmental storytelling. This allows more subtlety in the storytelling than is typically used in games: video game stories can use subtext, not just text. The second lesson is to remember that most video game players are familiar with the language of games. They'll notice when a game violates or modifies that language, even if it's only subconsciously.

One particularly effective use of environmental storytelling is Professor Breen's public address in the beginning of *Half-Life 2*. The dialogue of Breen's address contains all the exposition that would normally be delivered in a cutscene, but instead it's relayed in the background.

Players are free to stand in front of the display and listen to the entire speech, but few players will. And they needn't, because it conveys everything the player needs to know, seamlessly, and without interrupting the player's exploration. The main idea -- an alien invasion, an oppressive take-over by a complicit government -- comes through.

A lengthy cutscene would likely have been ignored by the player; he'd become detached from the storytelling and instead switch to "game mode," just listening for instructions on what to do next. By providing the information in the background, over multiple channels, he absorbs the relevant information subconsciously.

World-Building vs. Story-Building

The main ideas common to all of these observations are the ones that are most counter-intuitive to game developers. We concentrate on building immersive, believable game worlds in the hope that the player will feel completely engaged in the experience, even though players will always remain conscious that they're playing a game.

Breaking the fourth wall, addressing the player not as a character in the developer's story but as the player of a game, doesn't necessarily shatter the sense of immersion. It can actually increase it, since the game is now speaking to the player directly.

And giving the player complete control over the story doesn't necessarily increase his sense of engagement. In fact, it can be even more isolating, since the player feels he's creating a completely separate story that has little bearing on or influence over the developer's. Making the player feel like an active participant in the storytelling can actually require *increasing* the developer's voice, not diminishing it.

The most important lesson game developers can learn from horror and suspense films is that audiences are never truly passive. They're constantly processing, re-interpreting, accepting, rejecting, and predicting. It's easy to turn off a player's controller during a cutscene; it's impossible to turn off his brain.

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