

The Ultimate Interactive Storyteller

The Narrative Trigger

Naturally, any story is really about revealing a set of circumstances and situations, and concerns the subjective rendering of another reality. Mythology exists in this way to construct and define society as a whole. The purpose of storytelling could be defined as the teaching of information that has been experienced.

The oral tradition of storytelling and passing information from person to invents the folk myth. Teaching and exaggeration create the color and vibrancy of the culture. Suspense exists from a network of facts which trigger and connect, or refute the greater truth to be taught. This notion of triggering is most important, as it is the creation of irony and comparisons of truths versus non-truths, different perspectives, and the details and motivations of characters that cause interaction.

A narrative trigger is a discrepancy or a point in which the listener, viewer, receptor, or user, reaches a temporal comparison of differences or similarities. A trigger is any point in which the user questions the inner reality of the narrative. or the reality of the world being relayed.

The argument might be made that the act of storytelling for the receiver, or the listener, is a completely passive act, and incapable of being interactive. But, if you consider the most intimate acts of storytelling, you end up with a one sided personal conversation. Precise questions might lead to remarkable insights or details of the story. It is the recipient's "What about this element?" that factor into any conversation. Those triggers inherently spawn more elemental triggers.

The idea of the lying narrator takes on a new dimension here. Anyone listening to a story should be able to ask a few test questions back to determine if the teller or the teller's reality is really truthful. This might be described as a logic test of some kind. With television, a viewer could witness another channel source to understand reality. Imagine television news, where the same story was vastly different on different channels. This would undoubtedly trigger a controversy.

With one source however, the questions all become more strategic. In the game of chess every move poses a question. In poker, the call is the question. The bluff is really the narrative trigger. The poker-face is the character behind the trigger. The act of commanding warfare is triggered by the story of informers. An engrossing court case is triggered by the contradiction of perspectives. Reality as we know it, is always an act of cut-up comparisons or a conclusion of similarities.

If beauty is a factual truth, then an inverted type of storytelling is really a mask that covers a reality of truths. This is the type of storytelling where the very act of telling the story requires interaction and numerous triggers to achieve a truth.

Mis-information and The Three Act Structure

An interesting consideration when comparing the traditional narrative to an interactive story is the derivative. Within folk mythology you have the oral tradition of expanding a story through misinformation. If a story spreads by word of mouth, through many versions over time it is undoubtedly spread imperfectly. Derivative myths are an organic process where there is seemingly no such thing as the absolute story. Every movie that has been based on a book or play is another version. Storytelling is closer to software than most people imagine. On occasion there is actually software that adds to a movie narrative. Consider what software Lucasfilm

has released recently to augment their film narratives.

We are then lead to the most ridiculous but fascinating of theories that a truly compelling interactive story, or interactive type of conversation might originate from the perspective of the most manipulative of pathological liars. What could possibly be the exact motivation of any storyteller in relating the story to begin with? Might the action of slip-shot storytelling, where one sees the holes in the narrative's perspective regularly, be the most intriguing element in an interactive environment. What if the narrator told one portion of a story twice, but neglected to get the details correct the second time. Could the narrator be trusted again? Probably not. Another level of playfulness exists here.

Of course what should also be defined before continuing, is the basis of character transcendence through the Three Act "Classical" structure carried from the Classical to stage and screen storytelling. How does this relate to the non-linear narrative? It may in certain very subtle aspects. It all invariably comes down to the transcendence of the key characters that drive the plot points of the three acts of introduction, conflict and resolution.

When considering linear or non-linear narratives, transcendence of person, place or thing, and what information is gained, is truly the most important point of the story. Traditionally, the story must lead you somewhere, and teach you as a fable or moral tale would. The listener must be able to relate to the change that envelopes the key characters. The listener or receptor of the story must witness that change or transcendence over time.

To break this down into further definitions, the most simple division for organizing a Non-linear story is a Closed or Open Ended architecture.

The Basis of Interactive Architecture

Within a Closed system, a story is revealed in its most absolute form. The theory of story branching is probably the earliest. A 'Choose Your Own Adventure' type of narrative where there are also decision node points. One node leads to another node which leads to a final node. A closed system could easily be applied to a Classical three act narrative/character structure, where there are multiple outcomes of the story, and the character's fate. In one version, the character may survive, in another suffer a painful death. It totally depends on the users ability to make absolute decisions. It is all not unlike a traditional psychological test.

Imagine hearing a story from someone with this architecture of delivery, where the as the receptor you would be given choices, and the storyteller would know all the outcomes simultaneously. One is reminded of the Borges short story "The Garden of Forking Paths" where the story is really one splinter of many parallel universes.

This type of interactive story could also be considered a critical path type of structure, which means that the spline of the story does not deviate and is quite linear, although varying in content. Decision nodes might also be considered narrative Cul De Sacs, Arenas, Scenes, or World within Worlds. The limitation of this structure is that it becomes predictable very fast, and mastery of the narrative is never far off. It is just a matter of repetition, and mapping the maze of the multiple paths.

To build on this notion, is to open this structure. An example might be the act of playing a simple Role Playing Adventure game. In this structure, there is no critical linear path, and the end user discovers key elements in the story as they reveal themselves, or as they are found. These key points might also be referred to as critical objectives and really could be plot points in a three act classical structure, where the finding of a certain person,

place, thing, or idea, changes the path of the overall 'meta' narrative. Might the Classical structure also be revealed over a "meta" time frame of any story, where all the scene details and interactions within scenes could be randomized and modular?

Imagine interacting with a storyteller using this definition in the real world. It becomes increasingly proactive, in that the user is forced to explore a scene or world by decisive investigation. In this case the storyteller has to have a complete and thorough knowledge of the world or arena. In the case of a Dungeons and Dragons type game, there is a Dungeon Master, who basically overrules the scenarios, and answers all the questions, although dice are used to create a random unpredictability.

A popular late 1970's digital derivative of this Open Ended Structure, is the classic Text Adventure game where the DM was effectively a very specific vocabulary in the program's code. When correctly applied, the set of rules unlocked the game further to an ultimate goal. The original text game *Adventure* was completely based on D&D and was rehashed into the first version of a game called *Zork* by MIT students. A company called Infocom later distributed now classic Text Games like *Zork*, *Planetfall*, and *Starcross* in the 1980's, which specialized in using the imagination to propel these worlds. In most cases there wasn't a distinctively classical three act structure with any of these games, but they depended highly on critical objectives, such as finding the right potion or doorway, and not getting killed by angry dwarves. *Zork's* starting first text line

are without a doubt, the first illustrious words of the digital interactive narrative:

West of House.

You are standing in an open field west of a white house, with a boarded front door. There is a small mailbox here.

Simultaneously as Zork developed, and even as early as 1979, an online version of the text adventure was evolving on networks. These text worlds were called MUDs or Multi-User Domains, where multiple players could communicate and explore the same virtual space. This led to MOOs, or Mud Object Oriented games, in which much of the rules and environments of the virtual world could be coded by the players, albeit text. This then evolved into countless derivatives across networks, and led further to worlds beyond text as The Palace, Warcraft, and Ultima Online that combine precise graphics and avatars which represent characters. Even multiple user 3-d engine open ended virtual worlds are now possible across networks, such as Quake II, Everquest, and Dreamcast.

All this technical wizardry however gets away from any aspect of storytelling in a classical sense. It is as if a certain balance has been lost between the open-ended environmental virtual simulation and the purpose and critical objective that space or a particular scene holds for an overall "meta" narrative. Are there such things as a narrative plot points in open ended 3-d simulations such as *Duke Nukem*? There is rarely a significant narrative back-story. Instead of plot points most games have Bosses and Big Bosses, which are characters that must be transcended and physically beaten to continue.

The Fractal Storyteller and Sims

Maxis Games, such as SimCity and SimEarth, are intriguing in relation to interactive narratives, in their development of an Artificially Living scene over time. Many other 3-d game simulations do not feature an environment that slowly changes its conditions. You lack a predictable day or night, or unpredictable weather conditions that effect the narrative in an online twitch

game like *Doom*. At least not yet. It all really returns to the purpose of the scene, and why a character or user is in that predicament and place at that particular time. Actions will always depend upon what is at risk and what can be gained.

The use of random algorithms in Maxis Games account for its incredibly intricate gameplay and organic disposition. Strategies develop on the part of the player to combat the ever changing forces of variables or algorithmic sets. A game can never be repeated the same way. A storm may affect an environment in one or an earthquake in another. Every game creates its own story to a certain degree. The stories that appear within Sim City might have a beginning, middle and conclusion, but have variable plot points, which occur due to the player's actions, reactions, and randomized sets.

In any of the Sim games, the player must ultimately control the end result. The mastery of a Maxis game, really comes from a type of stasis, or a co-dependency of parts, which re-adjust organically according to the random events.

In a sense this is all like listening to a storyteller who is passing you the information as the story is unfolding. There are not derivatives, but parallel universes. Or it is as though the storyteller has a complete mastery over his subject. He could answer the most impossibly obscure question on any person, place, or thing detail that concerns the environment of the story. The storyteller would have a fractal knowledge of the subject, meaning that he could offer details on an infinite basis. The details invariably create more details.

Now, of course to take this simulation idea a step further is to simulate events which have happened in history and to teach and tell their story. To date, this has been most remarkably achieved with war simulations and specifically the strategy games of Sid Meyer as an example. His

latest historical venture Gettysburg was incredibly researched and the game-play was actually timed as the historical events happened. It is a re-creation of History along infinite parallel universes, although it is "Dependent" upon the real time the battles took. Knowledge of the timing and logistics of real battles would only aid the player.

Harmonic Paths of Multiple Cameras

Another completely unique approach to non-linear storytelling is the concept of simultaneous channels telling the same meta narrative. This has recently been referred to as a narrative that follows a Harmonic Path, meaning that the same story is told through different visual or character perspectives, and their combinations. Again, it is a matter of the juxtaposition of these perspectives that completes the entire picture, or the meta narrative for the receptor. The meta narrative is dependent upon all the individual stories combined.

Imagine a tele-play type narrative that is shot from four different cameras that cover four separate characters in a house. The cameras never leave the characters they've been assigned. The characters might talk to one another, group themselves accordingly, or venture outside the house. In the end, there would be four separate films of those characters. If you were to sync these in parallel, and devise an interesting user interface to switch between these simultaneous narratives, you would have a harmonic path type architecture, and possibly discover the meta narrative in the process.

A harmonic path device might depend more on a Classical narrative structure than anything else, as it pulls the viewer into watching the character developments acutely. What is seen by the person watching all the omniscient narratives, might not be visible to all the characters. Plot

points might only be visible through combinations of perspectives. Imagine there is footage of one character burying a secret in the backyard, while on another channel, the other characters sit down to dinner. This juxtaposition alone creates a narrative trigger of sorts. Perhaps one of the characters at the table sees the other in the backyard, but does not say anything to acknowledge this. Great complex narrative relationships can be made this way.

Another interesting aspect about this structure, is that the meta narrative is never really assembled in its final form. It is only assembled by the receptor's manipulation of the camera views to juxtapose the narrative correctly. The meta narrative is actually assembled in the receptor's imagination through his/her interaction. The receptor/user becomes the director in a sense, and the piece is finished in an unassembled format. Doug Aitken's award winning video/film art installation *Electric Earth* (1999) is not unlike this. In the piece, the receptor moves through a space of multiple screens that portray different parts of a character. One only understands the character fully, and the character's predicament by watching all the screens and assembling a composite.

Now what if one were to change the rules slightly, and really began to augment the time frame of a Harmonic path structure? What if you established a certain digital offset between the parallel narratives, so that you could see a certain event from different angles that would appear to repeat. The editing of such a piece becomes increasingly subtle. The four narratives could start together, split apart to different time rules specific to that camera and character, and then reassemble in sync for the stories' classical conclusion.

To apply this multi-threaded storytelling aspect to the oral storytelling tradition, one might imagine a set of four campfires which feature four separate storytellers spinning the same larger tale through their individual

stories. They are really all dependent upon each other for the meta-narrative. It would be the receptor's task to walk amongst the storytellers, gathering up as much information as possible, and create the truth of the story in his/her own mind. Again the lying narrator and his discrepancies create marvelously interesting levels of confusion versus passing on wisdom.

AI and the Smart Storyteller

Continuing on this tract: What if it were possible to interview each storyteller personally, to verify the tale they were telling? What if the other storytellers could hear what questions were being asked of the one being investigated, and could change their stories to adapt accordingly?

This example of adaptation really leads to the concept of true computerized AI that applies nicely where interactive storytelling is concerned.

This is the type of machine narrator that delicately learns from the interactions of the user. To further this ultimate storytelling machine, imagine it has the AI capability to preconceive the investigator's next question, or series of questions, from its ever increasing knowledge set of what the listener has asked in the past. It is almost a Turing Test in reverse. It would effectively change its story with every move and outwit the storyteller by learning from him/her. The "Smart Storyteller" might resemble an advanced computerized chess player, and would wait for the receptor to interact first, or to make a mistake in its own knowledge base. The "Smart Storyteller" might also choose to lie completely of course.

Relating to a basic real life storytelling setting from an oral tradition, an AI storyteller might also resemble a peculiar form of telepathy.

Dimensional Based Structures, Cyphers and Noise

Yet another consideration, when applying the interactive medium to the narrative is the control of unseen user specific partitions and cryptography.

With digital technology and programming which monitors or calculates time, very interesting possibilities present themselves. Picture a programmed narrative which contains elements or plot points which are only available in pre-defined time sets. This might resemble a time based virus.

An inner digital clock could be read by a host machine, and the story augmented or re-threaded into a derivative one. What if a digital narrator considered if the real world timeframe was day or night and behaved accordingly?

What if a specific partition of the narrative was only evident on certain days, hours, or lunar phases? Certain objects might appear and disappear according to this unseen structure. A time based partition system would need to be cyclical to be detected. or it would have to be noted elsewhere.

What if the narrative understood somehow the real-world location of the receptor and "behaved" specifically to that location? The narrative would know if the receptor was in New York City, and would provide relational details.

In an oral tradition, the idea of a cyclical time based partition is really akin to a calendar ritual, or a peculiar type of story/votive. Imagine one day of the year would bring a new story derivative.

An interesting point is that any digital narrative in an open or closed structure could be "pushed" by clock monitors to the conclusion of a Classical Narrative. This could be defined as a "progressive time partition" rather than a "cyclical" one. If the plot points are not discovered in an

environment by the receptor over time, they are revealed by the narrative itself. This ensures a time frame for the entire meta narrative, creates a more attentive pacing, and relieves the chore of endless hunting to find plot points.

Unseen time partitions lead to a type of crypt or cipher of unseen patterns in many respects. This is comparable to any data set or structure that is unseen. The unseen time partitions could be structured in a 'meta' pattern that could be self-referential to the narrative itself. Imagine a digital story where clues are given in the narrative such as a number set, which are a direct cipher to the data which controls the partitions. Say for example the numbers 2-5-11-20 appear in the narrative somehow, as a verbal or graphic clue. On those particular days of the month, the narrative is programmed to open a unique partition available to the receptor and extends the narrative experience even further.

There is much that can be done with this feature of digital programming.

Applied once again to an oral tradition of storytelling, it could become a linguistic puzzle.

Imagine a person telling a story verbally in what seems like a unique language or an abstraction. The narrative would require a cipher to understand over time. The code that requires cracking might literally be lost in a sea of noise through the narrative.

The Ultimate Interactive Storyteller

This article was meant to explore different possible structural aspects of the non-linear narrative, and apply them to the simplest form of narrative storytelling that results from any oral tradition.

The non-linear narrative transcends the typical linear narrative, in its depths of understanding or depths of confusion and noise. Like any linear, an interactive narrative might serve as an informational tool that passes on the wisdom of experience as in traditional fable, or it might relate an environment which is impossible to master, and a story which is untellable and lost in noise? It can be said that the non-linear narrative has a much larger range of trigger types.

We have just begun to explore the implications of what is possible when considering digital interaction and the non-linear or interactive narrative versus thousands of years of linear storytelling. It is truly in its infancy, but the aspects of depth of information and the puzzle of misinformation brings what is fundamental in the narrative to a new plateau.

What must also be considered in an entertainment based non-linear narrative, is the balance between the classical versus non-linear architecture. A "comprehensive" non-linear narrative must balance of the two perfectly. In the entertaining linear or non-linear story the art of timing and the revealing of details is still primary.

Combinations of non-linear architectural devices might be even more compelling and unpredictable. Combinations aspire to create a set of behaviors and emotions as a fuzzy set or an Active Agent might, by throwing narrative puzzles at a receptor. This might dramatically oppose the idea of passing on information as a teacher might. The distinction might be made between teaching and trickery.

The Most challenging ultimate Interactive storyteller, might a pathological liar who is telepathic enough to always know in advance the twenty+ questions one is about to ask. The storyteller has a fractal knowledge of his/her subject. The agent learns from what a listener might know to give misinformation to always mask certain truths and deceive. The "Smart Storyteller" knows the

exact global position and time one is at, or has been, to localize a story for complete familiarization. And finally, the storyteller speaks in ciphers, or a cryptic vocabulary, which the listener might have to decode by observation over time.

Would the interactive storyteller be guarding a secret perhaps?

Might the ultimate interactive storyteller be the most imperfect of machines?

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