Narrative Mechanics

Strategies and Meanings in Games and Real Life

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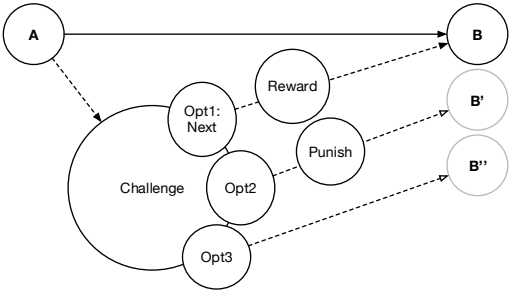
Narrative mechanics have many "faces", displays and interfaces. They occur as texts, recipes, stories, dramas in three acts, movies, videos, tweets, journeys of heroes, but also as rewarding stories in games and as narratives in society (such as a career from rags to riches, the concept of modernity or market economy) and are increasingly used in politics. Below their surface, however, narrative mechanics are a special kind of motivational design, or more precisely: a special kind of game mechanics. In the same way as classic game mechanics, they consist of rules and rule sets for control cycles that contain challenges, provide options, make decisions possible, and then reward or punish, thereby creating a magic circle. As in all game mechanics, everything that is possible in the system may be used. Most narrative mechanics, however, use a narrative structure (rule set mechanics), narrative rewards and punishments. Often, rules with linear connections are employed for this purpose.

Figure 1: Linear narrative mechanics are simple motivational mechanics. Most challenges are not overly complex. and are often built as basic rules.



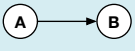
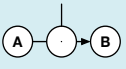
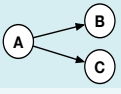
Source: René Bauer (all vector graphics in figure 1-6 and 17)

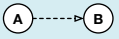
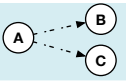
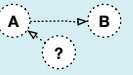
Linear links usually correspond to linear rules. From an “A” follows a “B” (A->B) and from that “B” a “C” (B->C). Of course, complex systems can be created even with such simple connections, for example when “C” refers to “B”. Narrative mechanics are not limited to language or text, they can also be visually narrative (with developing and recurring forms and patterns) and they can be auditory or tactile. A film, for example, contains formal rules pertaining to images (Image1->Image2, Image2->Image3). However, this can also become complex for the viewer, for example, if the last frame of a film corresponds to the first, but the film breaks off afterwards. In terms of content, the images again contain rules relating to figures and symbols.

Like games, narrative mechanics can also adapt to their rules, whether these concern the behavior of the reader or player or the environment of the reader or game. Even in texts, adaptive mechanics are possible. Initially, a text consists of a string of rules, respectively sentences, for a human interpreter. These rules can be used adaptively: a text provides different readings and can be written in a formulaic way so that the reader has to fill in the blanks. It can even be highly generalized, so that the reader interprets the same text in a different way depending on its use. In games, much more is possible in narrative terms. The story may depend on the player's decisions and may lead to prefabricated multilinearity.

Simplified, this leads to a whole set of basic narrative connections from simple links to explicit decision lines or associative linkages.

Figure 2, table 1 and 2: Six narrative mechanics. Each linkage is different, no matter if the result of the linkage before the decision is clear or not. These different narrative links can be combined. The representation below excludes reward mechanisms.

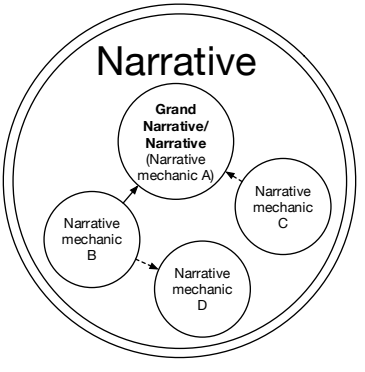
Simple mechanics	Conditional mechanics	Explicit decision mechanics
		
Stories in which the next section follows by necessity	Images are shown after a certain time	Go to x or to y or press the button yes/no, choose your next step out of more than one option; often visualized and clearly shown
Visual novel, non-fiction, story, news	Film, anime, cutscenes in games	80 Days, Choose your own Adventure, quick-time events

Optional mechanics	Implicit decision mechanics	Associative mechanics
		
Games in which the player can do something extra	Texts in which the reader decides on a reading by presuming something and continues reading under this assumption	Stories are shown in excerpts or only implied; player's interpretation as a personal decision
GTA, Minecraft, pinball machines, playground, city, special quests	Braid, Limbo, Textadventures, literature, poetry	Another World, FAR: Lone Sails, advertisements, pop songs

In more complex cases, the game generates a story that is specific to each player and each traversal of the game. This can turn narrative mechanics into storytellers or storytelling machines.

In many cases, narrative mechanics can become so strong that they function as containers or systems that absorb other narrative mechanics and thus turn into complex narrative mechanics with their own names or are associated with simple claims such as: "from rags to riches", "anyone can be successful (and rich)", "free market", "we are the people", "liberté, égalité, fraternité". At this point, narrative game mechanics become actual narratives. These complex narrative systems are in constant competition with other narrative mechanics and their spectacle.

Figure 3: Narratives as complex narrative mechanics containers or mechanics systems. Different narrative mechanics can be combined and appear as containers of various mechanics that mostly support each other and make up an elaborate mechanics system.

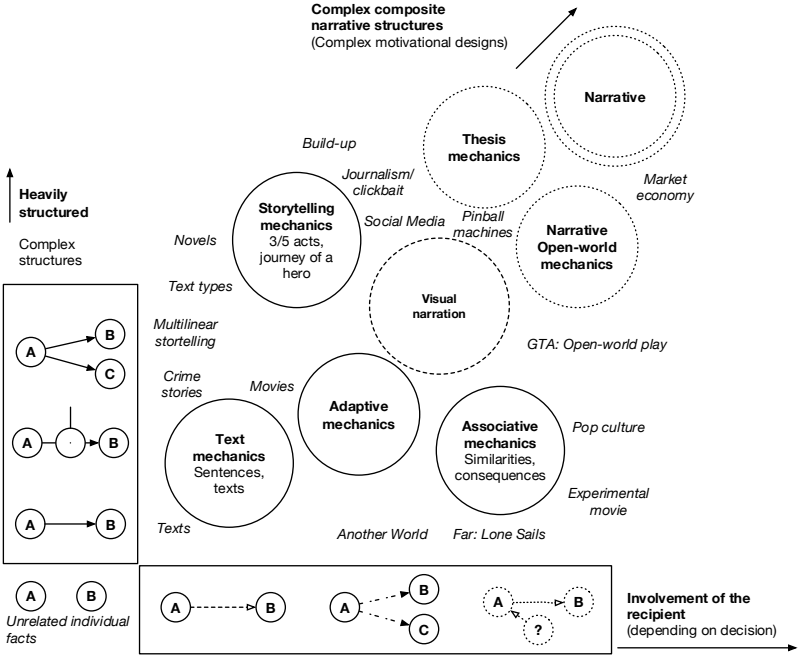


Just as with games, in politics especially the attempt is made to strengthen one's own narrative mechanics through rewards and punishments, so that it slowly displaces the other narrative "realities" and finally makes an absolute claim.

Rewards in particular serve as welcome confirmations in everyday life and are thus well anchored in the world we live in. They can be seen as part of a selective narrative spectacle that generates a strong immersive force. The narrative mechanics then become the only rewarding extension of our perception of the world and the basis for action (for everything). In certain methods of politics, narrative mechanics are defictionalized and at the same time become motivational mechanics for society. This means that narrative mechanics use their gamelike rewards and punishments in an incredibly tangible way in the analog world.

Below is a compilation of various narrative mechanics in a matrix of structure and involvement. These narrative mechanics will be examined in more detail in the following sections of this essay.

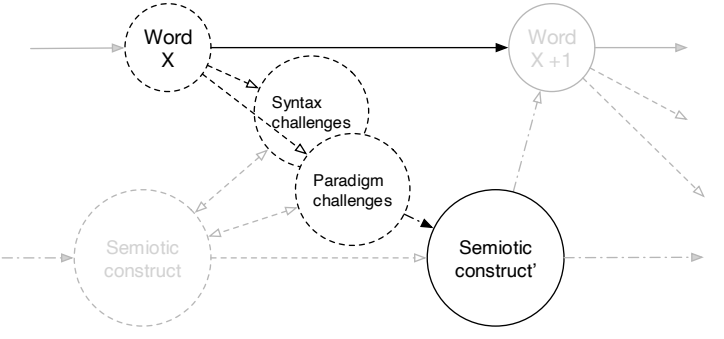
Figure 4: A compilation of various narrative mechanics from loosely structured mechanics (bottom) to highly structured mechanics (top), and from independent of recipient (left) to heavily involving recipient (right).



TEXT AS AN IMMERSIVE NARRATIVE MECHANIC WITH TRADITION AND POTENTIAL

Even the simplest texts work as game mechanics with sets of rules. They show decision-making processes and reward and punishment mechanisms on different levels of their motivation design. The reader is permanently challenged at the level of the reading process. As readers we have to understand sentences. Every single sentence is a challenge and a short-term motivation. We have to translate the rule set of a sentence into our mental system. There are paradigmatic rules (as meaning) and syntactic rules (as logical or associative linking). The simplest reward is that we understand each sentence and therefore the entire text. We are punished with non-understanding, i.e. an impaired reading process.

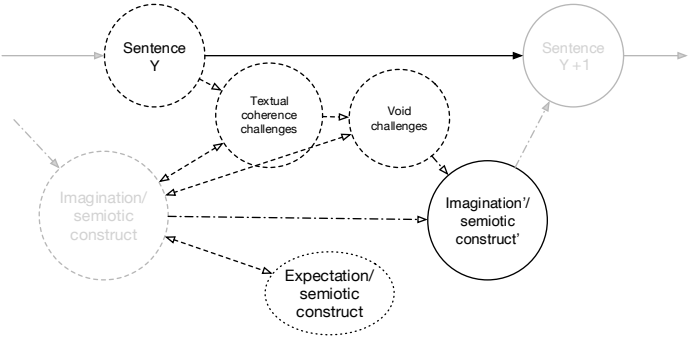
Figure 5: Text as narrative mechanics. Sentences consist of words that are linked with syntagmatic and paradigmatic challenges; semiosis creates meaning or a construct. You are rewarded if the syntax is right, when your words fit into the construct, a witty syntax, a humorous choice of words. You are punished with not understanding.



Source: René Bauer (all vector graphics in figure 1-6 and 17)

As readers we transpose texts, imagine our own memories and ideas in semiosis, and create our own "illustrated" story. We try to understand texts and must constantly fill the spaces or voids in the text (cf. Iser 1972), and decide on how to read and interpret the text. In doing so, we form our own assumptions that are rewarded or punished by the progression of the text. Building on this fundamental reading process, the text keeps us "in the game" in the medium term with refined word choices and interesting descriptions, and punishes us with short- and medium-term twists and ugly details.

Figure 6: Connected sentences become one text. Filling voids and creating meaning by semiosis is a constant challenge to the reader or player.



In long-term motivation, texts often use existing motivational structures such as closed dramaturgical three-act or five-act progressions or the hero's journey as the unconscious (developmental) story of the protagonist. This keeps us moving forward as readers. When we read, we link the current text back to the larger text, perhaps even rewriting the read text already, or creating expectations for the future of the text or fiction. As in classic games, we dive into the immersive world of the magic circle and its own rules. All too often texts let us consistently collide with our own moral presumptions: Do we "survive" the pervertedly ugly but logically stringent passages in Marquis de Sade's *Justin and Juliette*? Can we tolerate the twist in Rimbaud's poem with the person stretched out peacefully in the field, or the brutal mechanics of the gatekeeper, the penal colony or the trial in Kafka's text? All of which is nothing more than game mechanics applied in writing.

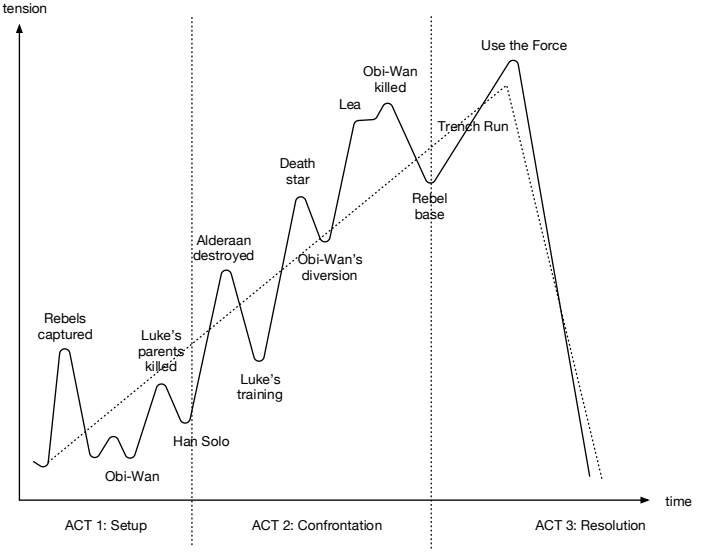
TELLING STORIES WITH NARRATIVE MECHANICS

In terms of narrative mechanics, text types are particularly striking. Each type of text seems to have its own narrative mechanics to motivate readers. The text type structures the way in which the text is composed and processed. Modern cooking recipes are a good example: the ingredients and quantities are listed at the beginning, and only then the text about the food preparation starts.

In storytelling, predetermined narrative mechanics are often used and modified, such as the three-act and the five-act structure, the hero's journey or Vladimir Propp's deep structure of fairy tales (1968). These dramatic structures are both analytical and narrative tools. They help to tell stories in an exciting way, or

in other words: they motivate readers and keep the story rolling (cf. Suter: 62ff.). In games this is often done with exaggerated, dangerous jobs that keep up the tension. In 1967, Erving Goffman commented on the illusory world of the novel, providing what could be regarded as a pointed picture of narrative games with hero stories. In a footnote, he writes "criminal jobs (as well as the structurally similar secret operations of various government agents) are carried out despite a long sequence of threatening and actual disturbances, each of which carries a high probability of ruining everything." Despite its unlikeliness, "the hero manages to survive from episode to episode, but only by roughly breaking the laws of probability" (Goffman 1986: 183), which may be motivating for most players, but could well be a little discouraging for players that are fully aware of the unlikeliness of the events and outcome.

Figure 7: Star Wars' dramaturgical arc shows how rising tension and short breathers between confrontations structure and move the story forward; the three-act structure is as classic as it gets – with a slow setup, a long and arduous second act and a short, explosive and cathartic third act.



Source: Wesolowski/Gamasutra

Besides such dramatic structures, there are also specific types of texts that structure not only the formal composition, but the content too. A good and popular example is the crime thriller.

Crime thriller as narrative mechanics

In a crime thriller and a crime novel, two narratives work towards each other: the actual story of the crime and the investigative story which is written by the detective, policeman or player-avatar through their actions over the course of the presentation of the fiction. The challenge is clear: Can we complete our own detective work and with it our investigation story before we have been told the entire crime story? As readers or players, can we find the murderer in the crime fiction before the text reveals it? If we are not fast enough, we can read the revelation again as our punishment. A reward would then be the earliest possible identification of the perpetrator in the crime story. Psychological insights, in-depth character descriptions and descriptions of the crime scene are as much a part of the sophisticated narrative micro mechanics of a crime novel as are the private conflicts and moral dilemmas of the investigator-avatar. And it becomes even more exciting when the investigative story has a direct impact on the crime story and is supplemented or expanded by the intervention of an investigator with action elements, pursuits and follow-up crimes.

STORIES AS NARRATIVE MECHANICS IN GAMES

Generated and procedural stories

Games such as *Don't starve* (2013), *No Man's Sky* (2016), *The Forest* (2014), *Eco* (2018) and, to an extreme degree, *Dwarf Fortress* (2006) do not use a given story, but a set of rules to create the world in which the game starts. In the beginning – on old computers an endless ten minutes long – unique tectonics are created, a story about every tree, every creature and every path is rendered over 1000 or more years. And then you step into this story of your own, ready to face any challenge, ready to play.

Stories as part of the motivational structure of games

Games use narrative mechanics such as stories and interactive storytelling as part of their motivational strategies. Starting with cultural embedding, games frame their content by using advertising and covers to create a world in which we want to play. Games often suggest that we are in a much larger and more important story, taking place in a much more significant and exciting world than the one we live in.

Figure 8: Asteroids for Atari 2600 with cover illustration on its game box and on the cartridge; the third picture shows the in-game world with asteroids and spaceship.

Source: screenshots (Bauer)

We don't just see pixels when we play an Atari 2600 game like *Asteroids* (1981), but view these pixels through the lens of advertising, posters and the illustrations on the cartridges (if they are available). Good examples for other consoles and PC are *Worms* (1995), *Donkey Kong Country* (1994), *PacMan* (1980) and *Tomb Raider's* (1996) Lara Croft. The illustrations always showed a more detailed and exciting world than technology was able to produce in-game. But it spurred the players' minds. Players who spin this framing further are rewarded with faster progress because they can read the connections better. In terms of the progression of the game itself, we will be rewarded with the continuation of the story or be punished if an inglorious end awaits us. Both are mostly used in long-term motivation and include intros, in-game cutscenes, scripted sequences of voice-overs and other narrative tools. Gameover is actually always the first step towards the extended potential of games as a supermedium. This can be seen especially well in interactive adaptive stories and multilinear games. Each game that is played generates its own story or story version of the respective generic game. And players may experience slightly different or even very different stories according to their choices and semiosis.

THE STORY WORLD AS COMPREHENSIVE MECHANICS

Open-world mechanics

Narrative mechanics can also be found in open-world games. There are three main narrative mechanics (e.g. in *GTA: Chinatown Wars* 2009): the main narra-

tive mechanics of the world that tells you what it is all about, the story mode mechanics as linear mechanics of the protagonist(s) and a large number of smaller narrative mechanics that are "inserted" into the playground-like, designed game world. These smaller mechanics are usually tied to specific locations and areas. They often form their own small mini-worlds within the larger open world and have their own corresponding narrative mechanics.

GTA: Chinatown Wars (2009) is a clear example of how narrative mechanics in open-world games can interlock. The franchise of *Grand Theft Auto* was created in 2009 for the portable Nintendo DS console which had fairly modest 3D graphical capabilities. This means that the game is limited to its essentials and looks and works in a similar way to older versions of *Grand Theft Auto*. The game's main narrative mechanic is Liberty City, an invented city that is modeled after New York and could be anywhere in the USA. The main story is set in a framework that is open for any kind of criminal activity: any gangster can make it in this town. Liberty City is a narrative "playground" that was not only used in *Chinatown Wars* but also in *Grand Theft Auto V* (2013).

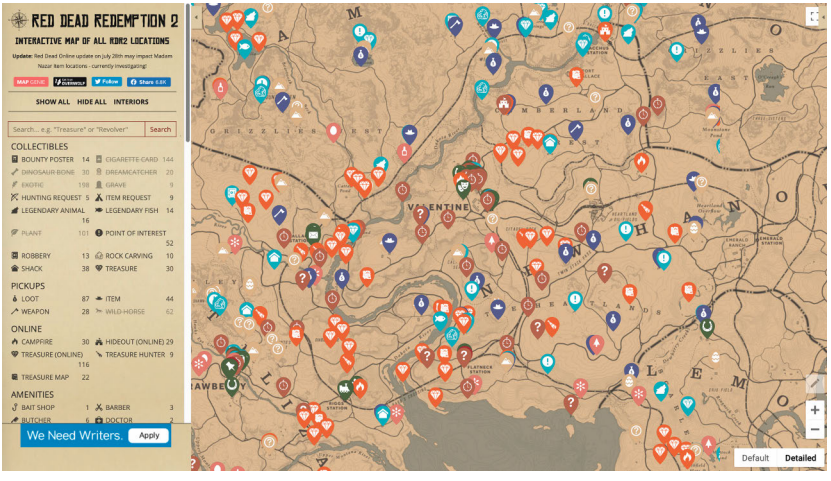
The main story comes as a linear narrative mechanic and is quickly told: A gangster, whose father has just been murdered in Asia, lands in Liberty City in a private jet in order to hand over a sword to his uncle, who is also a serious criminal. This is where the interactive story begins, with missions that are supposed to improve the situation of the player-avatar who has to complete these missions to slowly but surely climb the narrative ladder of organized crime in Liberty City with all its twists and turns. Players can opt for this grand narrative that consists of 58 main missions and 5 extras, or just go for it and get lost in the city and choose to do some of the many quests and 13 side missions. They can also just roam the streets, go sightseeing or steal a car and write their own story of escape and pursuit or stunts and races. (cf. rrvirus 2019)

An open world usually contains many embedded stories, missions and quests that are all a possibility for the player to engage in. Liberty City is such a huge (open) world with almost endless possibilities for smaller jobs and opportunities, in which you can immerse yourself narratively. The jobs are clearly arranged and mostly very linear, but can be combined in different ways. You don't have to follow the main narrative mechanics, the main quest line. Instead, you may want to take on an assignment to transport drugs from A to B or you may want to buy drugs cheaply and spend a lot of money on the other side of town on a luxury lifestyle, or you may want to defuse bombs or perhaps buy lottery scratch tickets – or indeed, you may not want to be criminal at all. Even the trophies on the trophy shelf in your apartment are all collectable achievements like the "Jeweled

Key to the City". You can earn this key if you own all of the 21 safe houses in Liberty City.

These possibilities were subsequently expanded in many open-world games in series such as *Grand Theft Auto* and *Red Dead Redemption*. So today, there are an enormous number of possibilities, side quests, and areas for actions and events on the fringe of an open world, all with their own narrative possibilities. It is also not surprising that there are fan-made interactive websites such as rdr2map.com on the internet, which show you all locations, quests, treasures, etc. of the vast *Red Dead Redemption 2* (2018) world.

Figure 9: Interactive Map of all Red Dead Redemption 2 Locations, showing side quests, treasures, weapons, campfires, hideouts and all points of interests, stores, etc.



Source: screenshot by René Bauer

Open-world constructions also play an increasingly important role in the specific design of cities. In this context, some city districts are designed like modern playgrounds. The urban playground is a narrative framework which sits at the top of the urban planning process. This can be seen in Zurich's "Europallee" and "Zurich West", Vienna's "Museumsquartier", Paris' "Les Halles", London's "Embankment", New York's "High Line", San Diego's "Gaslamp Quarter" or Sidney's "Darling Harbour" and other locations. Stores, clubs, museums, restaurants and outdoor areas unite under the umbrella of a narrative theme that serves as a framework to them and holds everything together.

Figure 10: Urban playground embedded in the city. Darling Quarter in Darling Harbour area in Sidney, Australia.

Source: Darling Quarter website

Pinball machines feature different simultaneous narrative game mechanics

Pinball machines work in a similar way: they have a superordinate narrative, such as an amusement park in *Funhouse* (1990), or twilight and horror as the theme for the pinball machine *Twilight Zone* (1993). What lies behind this narrative is the mechanism that allows a player to control two flippers inside the glass-covered box. Players can shoot up a metallic ball and hit targets by operating two buttons on the outside of the box using their fingers. Pinball machines simultaneously offer various subordinate narrative mechanics with many targets, blinking eyes, small animations, etc. In his thesis *Storytelling in Pinball Machines* (2018), David Krummenacher investigated storylines in pinball machines and found four complementary narrative zones and three distinct narrative mechanics for the player. Sequential order and time play a major role in those narratives. Unlike classic games that give the player minimal control, the basic game mechanics of a pinball machine become different with every shot, because the ball rolls and bounces off differently each time.

Figure 11: Bally's advertisement for the pinball machine Twilight Zone: an open-world game with story quests?

Source: Bally/screenshot (Bauer)

Only gradually does the player gain partial control over the pinball machine, allowing them to interact in a more controlled manner and to advance the main narrative mechanics further. For the corresponding (local) story to continue, the player must consciously and sometimes randomly hit and trigger individual narrative options ("Hit the head", "Hole in another ball") (cf. Krummenacher: 177-195). Thus, different narrative options can be open simultaneously and may develop as events at the same time. This is a feature that years later became common in open-world games. A pinball storyworld is similar to analog social reality, where different narrative game mechanics are also open at the same time and are only triggered over time or not at all – depending on the skills of the player or the randomness of the event. The player generates 'new' stories of their own, or in other words, the narrative becomes a storytelling machine. In today's politics, narrative mechanics work in a similar way – just not everyone has access to the flipper buttons.

Narrative adaptive game mechanics

Adaptive games fit in with their worlds, begin to incorporate the environment, such as *Boktai: The Sun is in Your Hand* (2003), in which daylight must be used for certain moves. The mobile game *Wardive* (2009) uses hotspots as opponents while walking or driving through the city, creating a dynamic game. In the Augmented Reality game *Pikselbacteria* (2010) (also by AND-OR), digital creatures are embedded in the game screen and eat the buildings and objects the player targets in the photo viewfinder. And in *Koko's Curse* (2018) by Geneva-based game studio apelab, a tree stands in the middle of the real living room, on which the petrified guardian of the forest, the owl Koko, sits. Now you have to help her find the lost feather that was stolen by one of the little birds. The forest environment in the living room changes with the actions and the original state of the forest can be restored.

The prime example of adaptive interactive storytelling is still the game *Façade* (2005) in which the player visits a married couple and is drawn into their relationship problems in a conversational manner. With strategic answers the player can mediate or stoke the relationship dispute. The two game characters react to the player's input with dialog and with facial expressions and gestures. The game adapts the further course of the conversation with the help of a drama meter and finally makes five different narrative endings possible. (cf. Suter: 71)

The fictional quiz machine in Günter Hack's real-sci-fi novel *QUIZ* (2018) may be even more adaptive and radically embedded in everyday life. The handheld device generates adaptive challenges as quiz questions from its respective environment. It includes what is currently being said, what time of day it is and what mood the player is in. The quiz machine generates specific questions with four multiple-choice answers – and it does it all the time and wherever it is. (cf. Hack: 250)

Associative narrative mechanics

If the concept of voids or blanks in texts is radically expanded, a kind of associative narrative mechanics emerges. The rules used in this case are mostly associative links, sometimes loose strands that the user can link and extend with their own links.

In *Another World* (1991), for example, lightning strikes a particle acceleration facility during an experiment, catapulting the protagonist, a professor, into another strange world whose logic he does not understand and into which he can only enter by trial and error.

This well-known narrative mechanic of being thrown into another world is even more radicalized in *Another World*, as the entire story functions as a kind of visual film without a GUI and without any written or narrated text accompanying it. The story is told purely through visuals and animations and the player has to make sense of how the story is connected with its visual scenes and events. (cf. DOS Nostalgia 2016)

The associative chain already starts with the first encounter scene, where our protagonist raises his arm as a sign of welcome and is then shot and stunned.

Figure 12: Another World (1991) is told only through associative visuals – the protagonist waves to the discovered creature (left), his gesture is ignored, and he is then shot (right).

Source: screenshots (Bauer)

Later, you escape with another prisoner of this world without knowing why he was imprisoned or what his intentions are. Again, no communication is possible and you don't get to know any more narrative content than what can be guessed from the immediate area you are in. Nevertheless, this Non-Player-Character (NPC) is rather important because he demonstrates certain moves and explains the functions of various things you are going to encounter in his company. A relationship is established by interacting with objects in this world and by interacting with this NPC. And even the ending remains open: the two ride on a dragon into the sky. Another World works with associative visual storytelling and associative interactions. Most things are left to the imagination of the player, which successfully establishes a very immersive game.

Figure 13: Another World (1991): Finding a companion in prison with no known history (left), riding on a dragon into the sky towards an unknown future.

Source: screenshots (Bauer)

More radical yet is *Far: Lone Sails* (2018). Whereas the opening sequence of *Another World* (1991) still contains a few spoken in-game texts like "Welcome, Professor", *Far: Lone Sails* has no words and starts with an ambiguous scene. An undefined figure (is it a child, is it male or female, or does this even matter?) stands next to a grave or a monument with a small wind wheel under a severely cut tree. What is the relation between the small figure dressed in an orange safety jacket and hat and the person in the picture, a man?

Figure 14: Opening scene of Far: Lone Sails, suggesting a vast landscape, man-made interference, some sort of remembrance and a lonely child in safety attire.

Source: screenshot (Bauer)

All these questions remain open, though there are some more hints, small scenes that can help you imagine a (back)story, if you wish. The following scene shows an enigmatic house with construction plans and notes and more portraits. In the attic, there is the child's bedroom. Our character must be familiar with all this. A short time later, this part is resolved when the player's character finds the vehicle that is shown on the plan some distance away and begins the journey. (cf. Indie James 2018)

Figure 15: Second scene of Far: Lone Sails. The player finds construction plans and more portraits in a house that must be familiar to the child (left). Some distance away, there is a vehicle constructed according to the plans (right).

Source: screenshots (Bauer)

This is followed by an almost endless journey through a vast world that the player has to get to know themselves. The images are interpretable and open and ask the question: What happened here? It is an invitation to fill in the voids.

Figure 16: Stranded container ships, planked paths, scaffolding and undefined landscapes hidden through weather patterns. Where are we? On a dried-out seabed? What happened?

Source: screenshots (Bauer)

Open and interpretable images aren't only to be found in the background, but also in the world your avatar travels through. They don't seem to have a fixed story, and you can give them some meaning yourself.

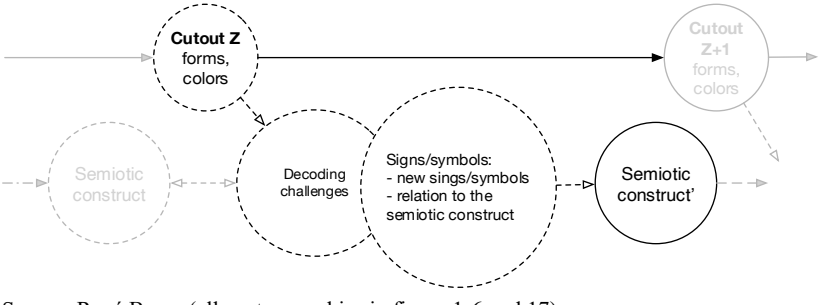
Games like *Another World* (1991) and *Far: Lone Sails* (2018) mostly work with allusions. The story is told without text, and the story of the world is conveyed in the background through pictures, stranded objects and the vastness of the landscape. The players assemble their story from these finds and voids, adapt them and get rewarded with the finding of the next supposed puzzle. In this way the players generate their own interpretations and backstory for the game while striving to establish progression for their avatar's story.

Visual narratives

All media using forms of visual display, from posters to images to interactive games, employ visual narrative mechanics, because the individual images or image sections have to be linked together somehow. Images can be linearized and serialized and thus transformed into simple narrative mechanics. But this of course takes the complexity out of an image which is always also a narrative mechanics link of itself.

At the same time, the first step in the semiosis of images works like the semiosis of texts. The signs must be interpreted and put together to form a whole. This is a complex challenge: to begin with, shapes and colors must be decoded and transformed into signs, and these in turn must be assembled and condensed into larger units of meaning. It is always about the question: Does the picture make sense, does it rewrite the rest?

Figure 17: Visuals as narrative mechanics. Visual display consists of forms and colors which are grouped and read and recognized as signs. They form bigger complexes of signs and are again recognized as signs.



Source: René Bauer (all vector graphics in figure 1-6 and 17)

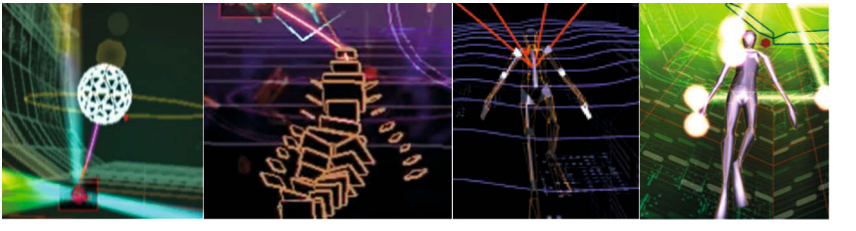
Interesting visual narrative mechanics are: copy, variation, enlargement, reduction, doubling, similarity and patterns of colors, shapes, space, movement and multitudes.

In films, concrete temporal coding is added and the expected construct (future) plays a much greater role.

Visual narrative mechanics in games

In games, visual narrative mechanics play a major role. It is always important to find out how individual signs and representations relate to each other. In most cases, visual rules are simply a reflection of the game mechanics. But there are also more complex visual rules in the service of game mechanics, where the visual itself actually becomes a mechanic. The rhythm space game *REZ* (2001) is a well-known example. Its linear visual mechanics are not developed according to the space requirements on the screen but through graphic styles in the development history of computer graphics. But not everything works with simple rules. The avatar goes through a change that is synonymous with the graphics evolution in games. It is kind of a metanarrative of computer graphics history that is cleverly told through a progressively changing player-avatar.

Figure 18: The growing avatar in REZ (2001), from Wireframe all the way to a shaded 3D model.



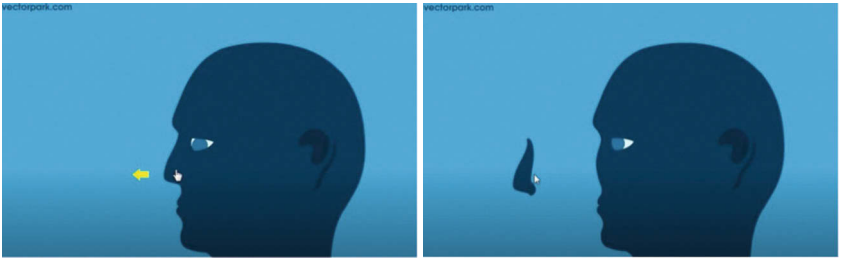
Source: screenshots (Bauer)

Visual mechanics not only in the service of game mechanics

In addition to this classic use of visual mechanics as a reflection of the game mechanics, there are games that function purely through visual narrative means.

The head in Vectorpark's *Feed the Head* (2011) wants to be manipulated and fed from time to time. The basis is to find out what to do. In the beginning you receive a pointer to tear off the nose, but soon it is all about simple manipulations that lead to rather unexpected results. (cf. WithPCGame 2011)

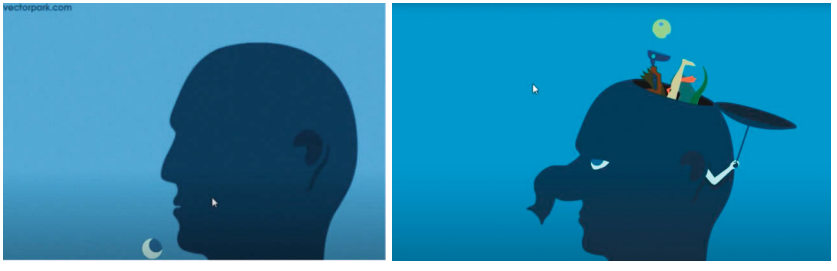
Figure 19: Feed the Head (2011). "Tear off the nose."



Source: screenshots (Bauer)

Following suit, the eye falls out of the mouth. The attempt to insert it fails. Only eating it leads the player to the next level of the head. The interactions nevertheless follow a certain visual logic but the further you get, the weirder they become and the head turns out to be filled with witty little objects.

Figure 20: Feed the Head (2011). "Help, the eye fell out through the mouth. How do I put it back?" (left) Further into the game, you can open up the head's top and juggle a ball (right).



Source: screenshots (Bauer/Suter)

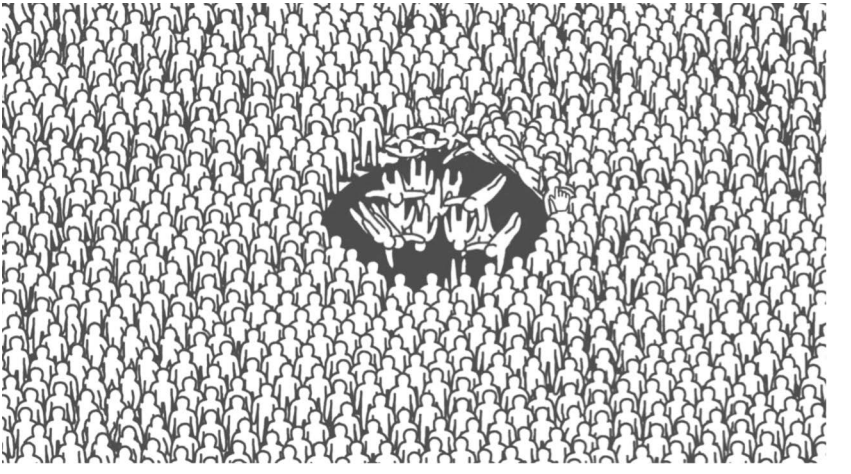
Osada (2011) by Amanita Design is also a trip through a world of its own with its own visual rules. Again, the interactions are very linear and the visual adventure only progresses forward to the next scene when you find out what interaction is needed in order to solve the current scene. Often, similarities and changes of shapes and objects are utilized here. In the first scene, there is a UFO. It turns out that the flying object has a similar shape to a sombrero. When it changes into a sombrero, the silhouettes of singing Mexicans with their hats on, gathered around a now lit campfire, appear in the foreground of the hilly sunset environment. (cf. Fmips 19 2012)

Figure 21: Osada (2011) is an interactive music video with linear visual puzzles. Shapes and side characters turn into characters, make music and sing a song.

Source: screenshots (Bauer)

In *Kids* (2019) simple visual narrative rules again play a leading role. Masses of people have to be managed. They have to be pulled into a hole or diverted. This causes others to fall into the hole as well. More humans then follow this rule. They behave like lemmings. You are rewarded with a huge number of falling "kids". In the next scene you try to find out what is to be solved, and how to manage the crowds there. The game uses simple linear visual mechanics, it is about how to control the human figures in a certain space, how to get rid of them, divert them, make them run in the same direction, make them swim down a tube, make them wave etc., and how to reach the goal, the next scene. (cf. NathanBlakeGames 2019)

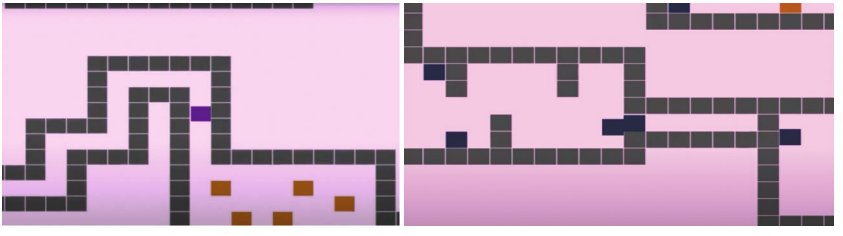
Figure 22: Kids (2019) is a game in which the player controls either individual humans or whole crowds. Here they all fall into a black hole.



Source: screenshot (Bauer)

In *LIM* (2012) you are a block on your way through an abstract world of other blocks, and have to find out what is possible and how you can establish it. This is, how meaning in form of game mechanics is created. Despite the abstract world, complex narrative mechanics await you. You can flash your colors. The other blocks react to you according to your and their color and movements. You can be trapped for some time by the other blocks. Sound and shaking make this rather unpleasant. You may even be thrown out of the labyrinth (cf. Solonface 2013). It is inevitable that you ask yourself: What am I experiencing here? What am I? Who am I? What is my relationship to others? I can move and change my color, but what does it mean? What narrative rules are hidden behind the basic visual elements such as form, color and behavior? *LIM* is a game that tries to convey the experience of violence in a liminal social space. Developer Merrit Kopas explains: "With Lim I wanted to portray a kind of violence less obvious and familiar than that normally portrayed by games, and to place the player in the position of a person experiencing it without the usual defenses games offer (weapons of their own, agile movement, magical powers, etc.)." (Kopas 2012)

Figure 23: LIM (2012) is an abstract game with different layers of expression. The player's avatar is a block that can change colors and fit in but experiences adversarial behavior by some other blocks.



Source: screenshots (Bauer/Suter)

NARRATIVE MECHANICS IN CULTURE (BEYOND GAMES)

Mechanics of assertion and counter-assertion in journalism

Interesting adaptive narrative mechanics can increasingly be found beyond games in fields such as journalism or politics. Journalistic texts are more and more often being formulated and published as assertions. In this respect, the chosen narrative mechanic is an actual game mechanic and at the same time a busi-

ness model. These assertion-based texts attract readers by means of their radically phrased headlines. This ensures that they are clicked on by opponents and supporters alike. And both sides rush to the forum and run riot with their comments, generating more online attention (clickbait) that can be monetized several times over. Wait for the next day, and you will be guaranteed to be rewarded with a counter-assertion to keep the "debate culture" going. But that's not all, even if the assertion cannot be proven or is rejected, it remains active as narrative (game) mechanics. As in the novel *Der Verdacht* (Suspicion) by Friedrich Dürrenmatt (1953), a suspicion remains that it could be correct. Even the most improbable assertion may be used here as game mechanics. The proponents as well as the opponents live from finding new "evidence" for or against the assertion. And the longer the time of argumentative abstinence, the higher the gain of pleasure is; the deeper the fall is, the bigger the challenge becomes. With each fact found, the mechanics of the assertion are strengthened and the magic circle that was created or found together becomes more consistent and more immersive. This can be observed particularly well in social media like Facebook, Twitter, Instagram, TikTok, etc., with their "like"-mechanisms that create own magic circles for each of their many users.

Narratives as solidified narrative mechanics containers and systems

Politicians apply this kind of adaptive narrative game mechanics far more radically. Here, language is used openly in texts and conversations. Words appear as variables that can mean anything and that can always adapt to anything. Words are here for manipulating. Who is on the right, who is on the left? Who is a do-gooder? Who is an upright person? Who is a refugee? Shared creativity in this context entails filling the variables as creatively as possible, enriching them with one's own experience, one's own life and being rewarded through narrative mechanics. A special form of narrative mechanics: narratives or *grand récits*. Narratives are meaningful and rudimentary, they are formulaic and transport certain values and emotions, and refer to a certain (political or historical) environment. Although they contain all the possibilities of rewards and punishments, they are often perceived as still and preserved stories. As in games, one enters the magic circle created by specific rules and accepts the fiction of a specific narrative.

The narrative can be understood as a concept of life: a symbolic framework such as "The American Dream" or a motto such as "Just Do It". It does not care about what is true and what is not. It is the design of a fictitious world. It doesn't necessarily have a clear beginning, a clear middle and a clear ending like a story,

but begins with rudimentary recordings and metaphors and evolves over the course of time and is able to generate more and more stories. In video games, the narrative can often be equated with the concept of the lived-in world, which serves as the framework for the story world. Open-world games in particular have to use such narratives. In the game *Grand Theft Auto V* (2013), it is the narrative of the gangster metropolis that serves as the framework for the game world as a kind of playable 3D architecture of Los Angeles or New York. The world is designed with rather realistic visuals and some important landmarks from reality, but serves as a surface and reduced space for all the player interactions and challenges. In turn, individual stories are embedded in it. And the individual quests and missions that slowly take over the lives of the main characters serve as a link between these stories. (cf. Suter: 60ff., 70)

Narrative mechanics in politics

In politics, narrative mechanics and narratives are often used to set an emotional framework of meaning for your supporters. In this context, the narrative is to be understood as an overarching formulaic narrative, a mechanism which creates meaning and motivates in its essence. A narrative is a narrative mechanic that brings together and coordinates other narrative mechanics. The narrative mechanics appear as the dispositif of a narrative. And simplified narrative mechanics are mostly perceived as linear stories and are thus easier to communicate in society.

The term “the narrative” appears in Jean-François Lyotard’s work *La condition postmoderne* from 1979 in which he identified as part of his theory on postmodernism two *méta-récits* of Western philosophy by which modernity legitimized itself: Immanuel Kant’s “self-liberation of the individual through enlightenment” and Georg Wilhelm Friedrich Hegel’s “gradual self-enlightenment of the mind as the goal of history”. The term *méta-récits* was translated into English as *grand narrative* – from which the German neologism *das Narrativ* was derived. It describes a fundamental motto of a concept, or rather the established narrative of a cultural circle with a certain legitimacy. This becomes clearer in two popular and somewhat less intellectual examples: The French Revolution was able to inspire with its grand narrative “liberté, egalité, fraternité” and to shape an entire epoch, while American capitalism has been able to keep its citizens at bay for decades with the grand narrative “from rags to riches”, meaning that everyone in society has the chance to become rich in a system assumed to be full of opportunities, even though you may have to start as dishwasher. And this narrative was labeled with the patriotic term "the American Dream”.

A political narrative today often corresponds to an easily understandable fictional feel-good narrative that increasingly attempts to suppress or displace other political narratives and their mechanisms.

The parallel with games is obvious, because that is exactly what games always have to do. They must make their narrative mechanics far more attractive and rewarding than reality. They must be very pointed, they must exaggerate, they must do the improbable. Egoshooter mechanics are a prime example. With a short story using pictures and animation and a specific war setting, a distinct magic circle is established. Through clear challenges ("They want to kill me") and approaches ("I have to kill them", for example), moral concepts are consciously narcotized in "action" and taken out of the game. This provides us with more "action". And paradoxically, we seem to feel liberated under such rule sets even though they are much more restrictive than we assume.

When Donald Trump promised to build a wall to prevent Mexicans from crossing the border illegally and repeated this over and over again, and finally "illustrated" it with detention camps and the tearing apart of immigrant families when they were crossing the border, he used a narrative mechanic that deliberately plays with the American fantasy that Mexicans would steal jobs of "good Americans". Therefore, the land has to be safeguarded against the (job) invaders from the South. Whether this was true or false did not matter at all. The narrative is simple, symbolic, coherent, and takes the form of a mechanic for Trump's followers. It is a character-fitting propaganda that served the purpose of establishing Trump's election and reign. And as it is the major rhetoric of a political backlash, it didn't stop with the election. The pursuit goes on, the wall is being designed and built. Parts of it are built in reality too, but above all in the heads of many people, the wall has been erected and established as a permanent feature. And the narrative mechanics turn into charades and games that have severe consequences for many people. Even inside the United States, Immigration and Customs Enforcement (ICE) units have been making arrests of unauthorized immigrants, deporting them immediately without granting them a hearing. At the border itself, the situation is one of constant farce with immigrants getting funneled to certain parts of the border where they are more likely to be picked up and turned around or put in detention or die in the hostile border area. In 2019 smuggling gangs in Mexico repeatedly sawed through new sections of Trump's border wall with commercially available power tools, opening gaps large enough for people and drug loads to pass through. When the border patrols see this, they send out welding crews to fix the steel pillars of the border wall. A few days later, the smuggling gangs work on the same pillars again.

Figure 24: Wall as a narrative defining politics. Reagan's open-up motto "Tear down the wall!" against Trump's border closure motto "We build a wall"; the fall of the Berlin wall (left), Trump border wall samples (right).

Sources: DPA/Reuters

Ironically, 35 years earlier, Ronald Reagan had established a similarly pervasive narrative mechanic with the opposite message "Mr. Gorbachev, tear down that wall!" After the Berlin wall went down, it seemed that the time for separating walls was over. But division and propaganda are never far away. The communication theorist Walter R. Fisher used the term "Homo narrans" (1987) to emphasize his point that humans are essentially storytellers. For him communication is, in effect, the exchange of stories. He argued that "the world is a set of stories which must be chosen to live the good life in a process of continual recreation."(Fisher 1985) His theory may be a bit short-sighted but stories certainly are important for communication and decision-making because they are able to establish coherent connections between events. The listeners evaluate these stories on the basis of their understanding of the world. In other words, a populist like Trump tells stories that enable his followers to understand the world because those stories are linked to their knowledge and identity. Reagan had done the same, but with reversed premises in relation to a defining wall.

Thus, Trump does not propose that Americans adapt their knowledge to reflect the new social and economic reality of their country, but instead offers to change the world so that it ultimately matches the knowledge of his followers. This continues in many other areas of Trump's politics. He tries to rewrite events like his own inauguration, the white supremacy rally in Charlottesville in 2017, the demonstrations for the Black Lives Matter movements in 2020, and even the history of the Covid virus. He does this in a way that corresponds to his own knowledge and that of his followers, and persists stubbornly in his world view without listening to counter-arguments and facts – in some areas probably until the bitter end.

From this perspective, various conspiracy theories have appeared in recent years as narrative-mechanical containers that can neutralize any "attack" with their narrative mechanics, supporting the narrative as a simple story system. The Flat Earth Society believes that the earth is not a sphere but a disc of an infinite plane. Apollo conspiracies state that there never was a moon landing and the astronauts staged it on a movie set. 9/11 conspiracies usually center around a deliberate controlled demolition of the towers by the state. Global warming conspiracy theorists want to believe that scientists invented global warming or distorted data for financial reasons. And QAnon is an absurd conspiracy that alleges that a cabal of satanist pedophiles run a global child-sex-trafficking ring and plot against President Trump. It seems anything works as a conspiracy narrative.

Narrative mechanics of the market economy

And yet, cleverly constructed adaptive narrative mechanics themselves are already actual systems of rules that create stories. The best and most influential example are the narrative mechanics of the (neo-)liberal market, which as a kind of mechanics (of absolute benefit and profit maximization) can be used and adapted anywhere, solves every problem at any level and on any topic, and creates the same individual success story for any (life) story. It is always possible to find an example in everyday life that supports the assertion of these narrative mechanics and confirms it to the reader. No statistical substantiation is required; it is enough for the narrative mechanics to hit the nail on the head every now and then. This seems to be reward enough. In this way, the narrative of the market and its current power-political use opposes the achievements of mankind. If, for example, truth, human rights and justice are evaluated on the market, all mechanisms and narratives so far developed lose their significance.

Culture as narrative mechanics and its Homo Cyberneticus

Narrative and narrative mechanics do not exist forever, of course; they must be fed and kept alive. The "thousand-year Reich" only managed 12 years. In itself a long time, because narrative mechanics must always be kept alive as long as the term of office of a politician or dictator or a certain economic cycle lasts. But the feeding is important, because only when people believe they can profit from them are narrative mechanics also meaningful, implemented and usable as a means of power. That is why politics and business try to convince as many people as possible of their narrative. The narrative of "Modernism" shows this very well. It has been alive for hundred years, but today, it has to share space and time

with several other narratives like "Postmodernism", "Hypermodernism" and "Nonmodernism" or "Antimodernism". According to Bruno Latour (2018), the narrative of "Modernism" for a better common future is important for science and technology and therefore for acknowledging the issue of climate change. We have not reached this better future yet, still aspire to it, but it has been increasingly denounced and set under attack by politicians who ignore and devalue science in order to re-establish the old ways of exploiting the planet. Their underlying credo is: "There is simply not room and resources for everyone. But there is enough for us. Let's take what we need."

Culture as narrative mechanics needs the mechanics to organize, motivate and ultimately reproduce society. The members of such a system and society, however, think in terms of "stories" and "histories". They deal with texts, facts, stories in conversation, in traditional media as well as social media. They have long since ceased to think in terms of stories, and are guided instead by narrative mechanics, i.e. complex narrative game mechanics. The actors of such a society are no longer linear storytellers and consumers. They have become specimens of the "Homo Cyberneticus" type. For quite some time now, they have been acting *with* narrative mechanics and *in* narrative mechanics. Their tools are cybernetic circuits, programs and algorithms that come across as narrative mechanics.

Figure 26: Absurd and extreme narratives dissipated by Twitter, from "flat earth" (left) to "all mainstream media are a fake" (right).

Source: Twitter

Homo Cyberneticus now also tosses these narrative messages into habitats, into experimental vats. In those echo chambers such as Twitter, Facebook, Instagram, Reddit, Twitch, TikTok, etc., the narrative mechanisms can multiply epidemically depending on time, place, content, sender and references, by spreading via other users or via algorithms and infecting others (literally "going viral"). These narrative messages create their own furrow or reinforce the fairway of an existing narrative or even a combined stream of several narratives. This new culture

comes across more as a fluid network than a hierarchically fixed system. Even if individual narrative mechanics contradict each other within their own narratives, this is where people play, fight, cheer, pay and motivate each other with their narrative mechanics. Only on the surface does this culture of narrative mechanics and narratives look like the culture of the last 80 years; further in or deeper down it is more cybernetic, more technical, more self-generating and therefore more feedback-driven, prone to manipulation and distortion, and more explosive.

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