

Games as a Special Zone

Motivation Mechanics of Games

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PLAY AS POSSIBILITY SPACE

In games, sheep might speak, mountains fly, spaces move, moons disappear and faces morph; men can shrink, avatars can be moved, time rewound or frogs blown up. What would be regarded as delusional laws, imaginations and crazy ideas in other areas, as described for example in Dr. Daniel Schreber's 1903 book "Denkwürdigkeiten eines Nervenkranken" (Memories of a Neuropath), is a tangible and interactive reality in many games.

It is the special zone in which games operate that makes these divergent rules and laws culturally possible. Huizinga identified a number of playful special zones such as arenas, card tables, "Magic Circles", stages or temples. They are all playgrounds.

"The arena, the card-table, the magic circle, the temple, the stage, the screen, the tennis court, the court of justice, etc. are all in form and function play-grounds, i.e. forbidden spots, isolated, hedged round, hallowed, within which special rules obtain. All are temporary worlds within the ordinary world, dedicated to the performance of an act apart." (Huizinga 1955: 5)

Thus, games (temporarily) position themselves against the 'analog' world with its fixed continuous rules that are based on atoms and their properties. The analog space surrounding us is bijective and continuous. It comes with three spatial dimensions, a continuous time and various resulting 'laws'. The same applies to social and cultural conditions, which can also override or subvert games. This analog space and its rules become a complex, special set of rules in the much

more powerful possibility space of the games – or in other words: the analog space turns into another one of many game systems.

GAME SYSTEMS – SYMBOLIC ORDERS

A game is established when the participants accept its rules and process them (board games, street games) or hook up to the game (in electronic games). A running game system is created and establishes an interior and an exterior realm for the game (Endo/Exo) or in other words: a “Magic Circle”. This creates its own system of meaning in which its own rules and its (potentially) own value system are processed (Kocher/Bauer/Suter 2009). Game systems thus form their own symbolic orders and extend these all the way into the rules of visual and auditory displays. There, they generate similarities that have a meaning in the set of rules and are not just arbitrary signs as in our analog world. In principle – and this is ultimately their cultural privilege – games only have to ‘make sense’ within their own “Magic Circle”, i.e. obey their own rules. But even that is not absolutely necessary.

GAME SYSTEMS – SYSTEMS OF MEANING AND UTOPIAS

Games bring meaning into a world that has become meaningless. This applies more radically to electronic single-player games where the notion of meaning refers to all areas from graphics and setting to the game mechanics. This is why the game also functions as a kind of last utopia of society: where things are clear, concise, accountable and predictable. Everyone gets the same chance. Under the protection of the “Magic Circle” everyone can start again from the beginning without any consequences. Many electronic single-player games have a motivational design where performance is rewarded. Thus they are the pure opposite of a social reality whose complexity is not transparent and in which effort is not necessarily worthwhile despite good performance.

Of course, our socialization and knowledge of the “Magic Circles” ensure that we do not demand the same in the analog social world. These short temporary experimental zones of play are always part of the dispositive of power: playful opium for the people. The small systems of meaning prevent us from dealing with the mechanics of our society – true to the motto of the book “Society of the Spectacle” (Debord 1968). Accordingly, Jürgen Fritz described (virtual) games

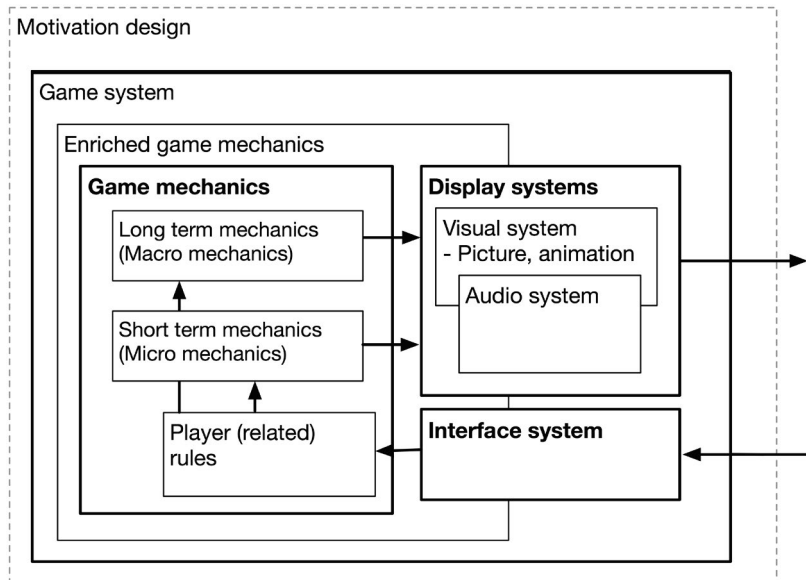
as a kind of (social) fairy tale in the chapter “Fairy tale worlds and virtual game worlds” in his book “Das Spiel verstehen” (Understanding games) (Fritz 2004).

MOTIVATION DESIGN – BIGGER THAN THE GAME

Game systems motivate people by involving and engaging them as players. For this purpose they have a motivational design. In principle, the motivation design is greater than the game itself. This is because it includes everything concerning the game: with external motivational strands that lead to a game, like game culture, fan art, marketing and advertising, on one side, and the motivations within the game that attract, keep and satisfy players, on the other side. And then, there are motivations that transgress the “Magic Circle” such as in games of chance (gambling), art games, game art, meaningful games, serious games and more. (cf. Kato and Bauer, Hansel and Gretel, on decisions, in this volume)

Motivation design is able to use all the rules and consequences in a game system to keep players busy, from challenge to reward to punishment.

Figure 1: A game system consists of different game mechanics which function as elements of motivation.



Source: Bauer

In games, game mechanics are mainly used to create motivations (Figure 1). A game mechanic is a minimal unit for engagement and involvement, respectively for creating motivation. In most cases a game system consists of a considerable number of individual game mechanic units.

These units can be hierarchical (one mechanic dominates), competitive (several mechanics simultaneously) or mixed (cf. Suter, in this volume). Usually there are Short Term Game Mechanics (lasting seconds and minutes) and Long Term Mechanics (lasting a quarter of an hour or several hours or even days). In most cases, these micro and macro mechanics are designed as cybernetic circuits or control systems.

GAME MECHANICS – A CYBERNETIC CONTROL CIRCUIT

Game mechanics are often constructed in the following way: there is a challenge, the game provides options or possibilities to solve this task, and the players can decide or in other words: *act*. Players usually get stuck in this cycle until they solve the task. The game rewards or punishes their decisions. The players communicate via the interface system and are able to “act” via player (related) rules in the game. These rules include, for example, the avatar's space and range of possibilities. The McLuhan concept of extension (McLuhan 1964: 259) can be applied here: people expand into the game as players and begin to act and feel as this extension, in the form of an avatar.

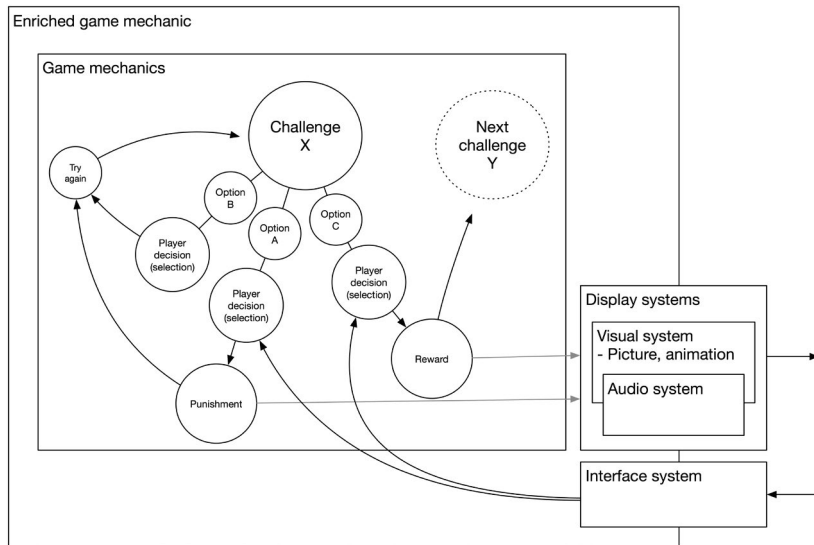
In game mechanics (Figure 2), the players usually receive points or progress as reward for a solution or, but in the event of misconduct they face death as a result. In an enriched game-mechanic framework practically everything is available to the game system: texts, sounds, graphics, pictures, animations, story bits, social media friends. Game mechanics use the systems of display to increase motivation. Classical narrative structures like stories, radio plays or films can also be read or designed from this perspective as simple linear cybernetic game mechanisms and motivation designs.

The challenges of game mechanism can range from a simple competition of a body-controlled game, for instance long jump or steering an idle spaceship in space (gaining control), to solving any kind of puzzle.

Motivation design is designed in such a way that the game keeps the players increasingly more engaged and makes the exo game world, with its problems, fade into the background. Gradually an experience of flow takes over. Flow means perfect balance of motivation design and use of the game mechanics, so

that the players remain committed, active and voluntarily caught between mental underload and overload. Hence, level design is the use of enriched game mechanics over time.

Figure 2: A game mechanic is a cybernetic circuit with set elements.



Source: Bauer

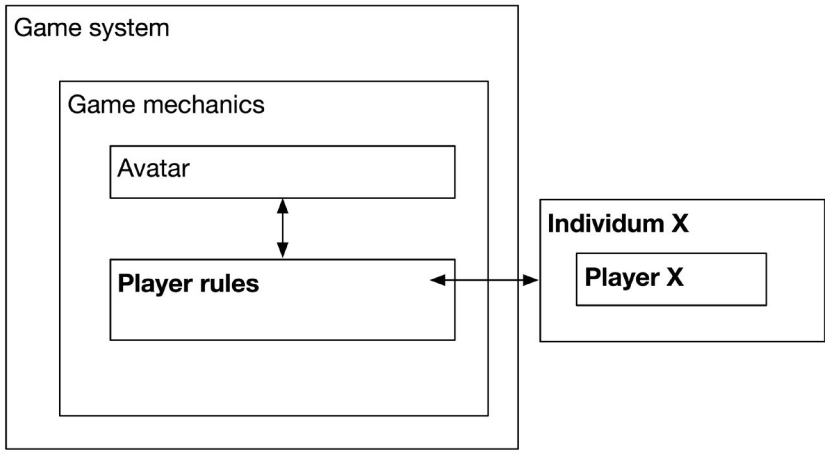
TRANSFORMATION INTO A PLAYER

When people commit to a game, they become players and thus part of the game. In doing so, they comply with the rules of the game and fill the provided space of rules, i.e. the player rules (Kocher/Bauer/Suter 2009). The players act within the *Player's Space of Possibility* that is provided for them in the rules of the game and they control the avatar in the game via the *Player Rules* (Figure 3).

Jean Baudrillard described the radicality of abandoning oneself to these player rules as follows:

“Gaming does not liberate us from constraints (since we accept the far stricter constraint of the rules), but it delivers us from freedom. We lose freedom if we live it merely as reality.” (Baudrillard 2001: 66)

Figure 3: *Players communicate with the game mechanics via the Player Rules*



Source: Bauer

Often only players who allow themselves to be socialized by the games and share or emulate the values of a game and act accordingly can win. In return, the player is naturally rewarded with the possibilities of the games, from the symbolic win over competitors (in analog games) and score systems with points to rolled out stories (mostly in electronic games). It is therefore no coincidence that electronic single-player games function as a kind of assessment of the player (cf. Bauer and Kato 2011).

GAME INFRASTRUCTURE

The possibilities of a game depend on the medium in which it is played. The two best known media are the analog and digital worlds. Depending on the medium, a game can use different game mechanics, challenges, options, types of decision making and rewards or punishments for its motivation design. The differences will be identified in the following paragraphs. It is clear, however, that mixed forms like Augmented Reality based games try to integrate the best of both systems. (cf. Kocher, in this volume)

Analog games: analog infrastructure and people as processors

Classic board, party or street games often use the analog world or elements thereof as infrastructure. However, in addition to elements specially created for the game (such as a playing field or a token), real space is often converted or transformed and culturally ‘overwritten’ by the game. But the analog infrastructure also has its limits. For example, free-flying elements in three-dimensional space may only be displayed and simulated to a limited extent in a game. However, this did not prevent the game designers from trying out everything and anything in the analog dispositif.

Most nonelectronic games are processed based on humans. Games and their rules are able to use the entire range of the culture and socialization of people for their purposes, from hide-and-seek to chess, football, *Les loups-garous de Thiercelieux* (2001), *Dixit* (2010) or *Icon Poetry* (2011). The rules of the game are (mostly) open and visible to everybody, since they are read out aloud at the start of the game or available to be read individually by the participants.

People process the game (for example when they are dealing cards) and play it at the same time (when they are deciding the next move). This division is often forgotten, since particularly in turn-based games players manage the game (by processing the game mechanics) and play (by processing the rules of the game) in one turn. Nevertheless, there are games that delegate the rules of processing the game, for example, to a Game Master or to one of the players who has to take on an additional task, such as the management of the rules of the bank as in *Monopoly* (1935).

Alan Turing’s invention of a rule-based automatic fellow player or Game Master has led to an unparalleled expansion of the game.

Electronic games: digital infrastructure for self-running games

The idea of the game was radicalized with the development of the concept for a universal machine and its manifestation in the form of computers. Turing’s universal machine is nothing more than a control processing machine. The machine itself consists of rules shaped by a simple language, and can thus control itself.

“To ensure that all algorithms are translated in a uniform language, Turing defines a machine that consists of only a few essential language elements. The machine reads characters from an input device and writes characters to one output medium – and only a finite number, since the algorithm is finite.” (Betz 2003: 10)

A kind of entry level ‘office worker’ or clerk (“equipped with paper, pencil and eraser”) serves as a metaphor:

“‘Computations’, he [Turing] noted [...], ‘are usually executed in such a way that certain symbols are written on a sheet of paper’. This is why, Turing continues, one can also declare the composite of a ‘human, equipped with paper, pencil and eraser’ – labeled paper machine –, as a ‘universal machine’ [...]” (Dotzler 2007: 301)

This cybernetic machine can now take over the management of the game (e.g. the bank) and therefore make completely different types of games possible: for example, games that do not wait for execution by humans but can create their own worlds to which we as players can hook up.

Electronic games: highly integrated worlds of control

Instead of real-world analog rules, as in analog games, computer games start as a kind of tabula rasa, with all the possibilities of the respective computer. This space may be defined, modified and shaped with rules. This way, the possibility space of games is being realized through a machine, suggesting that almost anything is possible. Everything in this possibility space of electronic games has to be programmed, but everything is a rule and therefore can also be controlled. This computer-generated space is also called cybernetic space or for short, cyberspace, because of its characteristics. It includes everything that computer algorithms can process and control – therefore, not only classic representation with 2D- and 3D-architecture but also time, databases, communication, various sensors and so on.

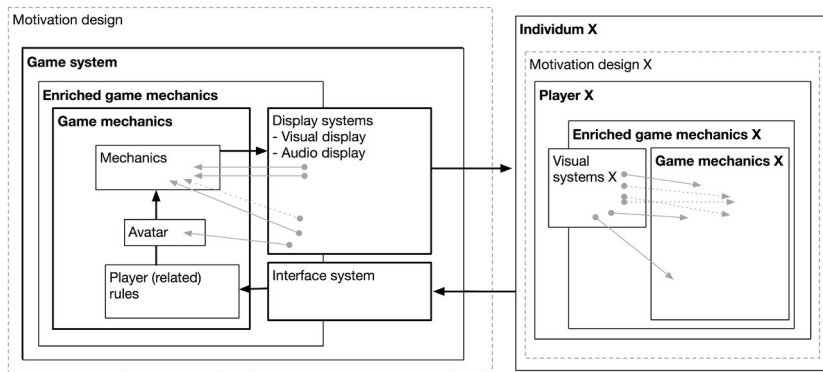
In almost all areas of the game, electronic games need to simulate a game world using rules. This starts with the simulation of time (How does it work? On a regular basis or turn based, is it possible to rewind or even forward time?), continues with the visual game mechanics rules (the anchoring of game mechanics in the visual display – see Figure 4), the simulation of space (representation, visual display), and the way one can move in space (model of space) and concludes with the behavior of objects in gravity or in collisions (physics engine). (Cf. Bauer and Kato, *The Spectacular Space*, in this volume)

The rules of the game are no longer processed manually; they are processed automatically in the background and are therefore no longer accessible to everyone. Players of electronic games in cyberspace no longer have direct access to the control system of a program and therefore of games per se. More than ever, electronic games are forced to anchor the game mechanics to the perceptible sur-

face of a game such as graphics, sound and animations. This makes the games legible. Be it through concrete rules or only through rules by way of similarities and color concepts, the result of these integrations and closures of gaps in the game system are highly integrated and highly artificial products.

Games convey game mechanics to players and players interact (optionally) with an interface (via inputs by keyboard, mouse, controller etc.) instead of intervening directly.

Figure 4: Electronic games are complex integrated systems. Players develop their own (often different) constructions of game mechanics.



Source: Bauer

This gives the software the ability to control the output, and the games are able to control the semiosis process or the output of that process. Players can then adopt a game using the “Trial and Error” method and create their own model of the rule system in the process (Figure 4). This method allows them to find out how the game works. The adequacy of their decisions determines their ability to act in the game (Kocher/Bauer/Suter 2009). Thereby the player’s model can differ greatly from the original game mechanics. Not every AI is as clever as planned and not every control and guidance system was actually designed that way.

Electronic games become a new kind of environment for the players, to which they hook up, become a part of and actively socialize in (as long as they abide by the rules). This is not much different from the socialization process in real-world society.

ANALOG LIFE IN GAME MECHANICS

Computer games have playfully accompanied, inspired and asserted the transformation of our (economically oriented) society into a digital cybernetic and rule-based society.

In electronic games, abstract concepts such as cybernetics, systems theory or radical constructivism – once used for analysis – have become interactive reality. Some time ago Marshall McLuhan described the social role of games as follows:

“Both games and technologies are counter-irritants or ways of adjusting to the stress of the specialized actions that occur in any social group. As extensions of the popular response to the workaday stress, games become faithful models of a culture. They incorporate both the action and the reaction of whole populations in a single dynamic image.” (McLuhan 1964, 259).

Therefore, electronic games are a kind of tangible concrete philosophy of a cybernetic-capitalist society. Their emphasis is not only on topics and settings, but also on applied techniques, possibilities of interaction, types of motivation, enriched game mechanics with challenges, options, rewards and punishments, and the values and models conveyed by them.

Society increasingly resembles a game. The cybernetic game mechanics are competitors in society and as such they are very much involved in the market's motivation design. They form a pre-defined framework with a scope for development in which anything permitted becomes possible. And like in a game system, discourses offer prefabricated options for action as choices, to which the social system reacts with prefabricated reward and punishment systems. In a best case scenario, this pays off in the value or currency of the respective subgame system. In the process, individuals increasingly become parlor players, for whom game mechanics take precedence over everything and who have ‘playfully’ abandoned any moral and social concerns some time ago in order to become capable of acting. It seems the world has turned into a simple control system that is predictable and quantifiable. The simplification of socio-cultural complexity is potentially similar to oversimplification in games, and equally works with clichés, standard profiles, data classification, liking and grading, reduction and omission.

Thus, in all conceivable analog, digital and “social” games, players expand into simple and reduced models. Instead of reading complex answers of one's own composition, players like to choose from predefined answers. Instead of moving player bodies in complex ways across space, they use a mini joystick to

move virtual giants. Instead of learning to operate each device, they use a single button to operate them all.

Avatars meet NPCs (Non Player Characters) and AIs that act autonomously based on rules. These modern digital slaves of fun rush players through the (game) world. As a reward they are consistently eaten, hit, slaughtered, crushed or simply destroyed. The irony is that NPCs and AIs are not managed much differently in terms of the code and rule system than the players themselves.

It is no coincidence that this is reminiscent of all the rule-based devices which increasingly keep our hands and brains busy, motivate us day in and out and playfully control us. Ultimately, we may have to face the cultural question: where do we still play, if we play everywhere?

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