

Procedural and Emergent Narrative: From Analog RPG to Digital RPG

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Introduction

Analog role-playing games (hereinafter, ARPGs) are known as a good example of generating emergent narratives, carried out in collaboration between the players around a table and the secretive figure of the gamemaster. RPGs are a genre of video games that since its inception, have tried to emulate these narrative proposals, facing the problem of trying to digitize imagination, creativity and human behavior to the digital context. We call them digital role-playing games (DRPGs). Live action role-playing games (LARPGs. Tychsen, 2006. Montola, 2009. Leist, 2019) are considered analog games also, but for scope constraints they aren't analyzed in this study.

In this work we try to identify systems, mechanics and dynamics of the procedural narrative of the ARPGs that serve as tools for the generation of emergent narratives by the players. Once identified, we want to confront them with the procedural narrative systems, mechanics, and dynamics typical of the DRPGs, which also facilitate the generation of emergent narratives by the players. Once the elements of both systems, analog and digital, have been identified and described, they have been collated with the emergent and collaborative narratives of analog and digital role players, for whom we use their retellings of memorable and meaningful experiences when playing RPGs. The data we have obtained has allowed us to develop a common model that will help incorporate ARPG narrative systems, mechanics and dynamics into the DRPG design and ontology.

Keywords

Analogue role-playing games, digital role-playing games¹, emergent narrative, collaborative narrative, procedural narrative, procedural storytelling

EXTENDED ABSTRACT

Analyzing ARPGs, also called *pen-and-paper role-playing games* or *Tabletop Role Playing Games* (TTRPGs) is essential as a paradigm of procedural, collaborative and emergent narrative (Zagal, 2018). In recent years, several studies have explored the potential of these games in scenarios of generated narratives, (Tapscott, León & Gervás, 2018). Although these generative narrative systems are collaterally relevant to our study, their objective is the creation of a procedurally generated story through

¹ Like DnD, Gary Whisenhunt, 1974; Dungeon, Don Daglow, 1975; The Dungeon (pedit5), Rusty Rutherford, 1975; Akalabeth: World of Doom, Richard Garriott, 1979; Wizardry: Proving Grounds of the Mad Overlord, Sir-Tech, 1981; Telengard, Daniel Lawrence/Avalon Hill, 1982.

an algorithm², the creation of a machine-generated text without the interaction of readers/players. This is not the focus or object of our study. In our case, the focus is the creation of a story around the interaction between the players, the Game Master (GM) and the rules of the game in an emergent and/or collaborative way. This conjunction of elements generates scenarios that emotionally challenge the players according to two vectors that Liapis (2016) highlights in his study on tool assisted co-creation, novelty, since each session is original and unique, and the value, because each session is memorable and fun.

ARPGs systems include specific mechanics for controlling combat, character creation, exploration, interaction between player characters (PCs) and non-player characters (NPCs), or progression systems, such as experience points and levels. Different approaches to these systems generate different narratives, and often define the ARPG genre. For example, games like *Legacy: Life Among the Ashes* (Modiphuis, 2018) instead of allowing you to play with a single character in a specific timeline, it allows you to control and "Write the saga of your family for generations and harness the powers of your ancestors. even when you are faced with the unintended consequences of their actions." In recent years, the evolution of the ARPGs has caused the traditional figure of the GM to become fragmented and distributed among the different players who assume their functions on a rotating basis. This type of game is called *GMfull* (Kluge, 2018. Fox, 2017). In a similar vein, there are other variants called *GMLess*, in which the role of the game director is exercised by the system itself through a set of rules and mechanics that perform this function. Some recent examples of this modality can be, for example the games; *Fiasco* (Bully Pulpit Games, 2011), *The Quiet Year* (Buried without ceremony, 2013) or *Trouble for hire* (ndpdesign, 2018).

Just as ARPGs have explored multiple ways to "run" the session, they have also explored multiple systems for managing drama and breaking uncertainty (Costikyan, 2013). Thus, beyond the original systems that were based on the use of elements such as dice and tables, coming from the Wargames of the sixties and early seventies (Peterson, 2021), other ARPGs have proposed ways of resolving conflicts and generating alternative content with greater or lesser success, such as the coin toss in *Principe valiente* (Joc Internacional, 1990), the *Spindlewheel* tarot cards (Tea col, 2020), the poker/standard cards from *Cards & Quests* (Skirmisher Publishing, 2015) or *Murderous Ghosts* (Trauma Games, 2018) or the custom dice in countless ARPGs and tabletop games, such as *At the Edge of the Empire* (Edge, 2013) or *FATE* (Evil Hat, 2013), where we can also see systems and procedural narrative mechanics such as *Fate points* or *Aspects*.

The contemporary video game, especially in comparison to those of the 1980s and 1990s, has significantly expanded the medium's own storytelling. The current interactive narrative models (Ryan, 2006. Jenkins 2004. Planells & Cuadrado 2020), make up a wide range of games that range from titles with linear structures where the player follows a pre-established story such as *Uncharted* (Naughty Dog, 2007) or *Last of Us* (Naughty Dog, 2013), going through games that use tree structures, where you can choose between a series of narrative options, such as *Detroit: Become Human* (Quantic Dream, 2019), or games where the player can create emergent stories from the combination of objects, also known as *Sandbox games*, such as *Minecraft* (Mojang Studios, 2009) or *The Sims series* (Electronic Arts, 2000). In this direction we also find playful proposals where users can move freely and interact with the

² One of the contemporary paradigms are the new AI technologies like the famous Chat from Openai: <https://chat.openai.com/chat>

inhabitants of the world, also called *Open world games*, such as *The Elder Scrolls V: Skyrim* (Bethesda Softworks, 2011), *Fallout 4* (Bethesda Softworks, 2015) or *Zelda: Breath of the wild* (Nintendo, 2017). Finally, in these last two decades, we have been able to see the birth of a genre of video games that has proposed new forms and narrative structures, often generated collaboratively and emergently by the players; These are the so-called Massive multiplayer online role playing games (MMORPGs), such as the seminal *Ultima online* (Origin Systems, 1997) by designers such as Raph Koster and the versatile Richard Garriot. A few years later, with the standardization of ADSL persistent connections, the well-known *World of Warcraft* (Blizzard, 2004) would appear. We will use other well known modelings of formal analysis of gameplay (Lankoski & Bjork, 2015) to try to highlight good features of both analogue and digital RPGs but specifically the latter. It doesn't mean that we don't know DRPGs enough to remark their narrative systems as procedural tools for emergent narrative, but we want to be honest in this point just to say that this kind of games and systems needs more research by our side, more than anything we need to apply academic methodology to the DRPGs research. Some of the candidates in this field are systems like the *AI Director* (Left 4 Dead, Turtle Rock Studios, 2008), the *Nemesis System* (Shadows of war, Monolith Productions, 2017), the *Radiant Quest* (The elder Scrolls: Skyrim, Bethesda Game Studios, 2011) or the tree shaped narrative mechanics of *Detroit: Become Human* (Quantic Dream, 2018) to name a few.

We find in the two models, the analog and the digital, the linear/emerging dichotomy. There are ARPGs with a tradition in its more linear narrative structures, such as *Dungeons & Dragons* (TSR, 1974) or *The Call of Cthulhu* (Chaosium, 1981) and other ARPGs with more open, collaborative and emerging systems and traditions, such as *FATE* (Evil Hat, 2013) or *Dungeon World* (Sage Kobold Productions, 2012) based on the famous *Powered Before Apocalypse* (PBTA) system. The same thing happens with role-playing video games, although the balance leans more sharply towards the linear side, due to production and authorship problems.

The first problem becomes evident and fundamental. The flexibility of the ARPGs allows to generate emergent narratives by the players and this flexibility does not exist in the DRPGs. However, as we have observed, even ARPGs implement procedural and collaborative storytelling tools and mechanics to help generate this emergent narrative. A question arises: Can we adapt some of these systems to improve the generation of emergent narratives in DRPGs?

To carry out this study, several ARPG and their narrative structures will be analyzed, seeking their design values (Pulkkinen, 2014). We will distinguish two types of ARPGs, those that generate emergent narratives without being specifically designed for it, that is, with unintentional emergent narrative systems, and those that include specific procedural narrative systems to generate emergent and, in many cases, also collaborative narratives, that is, with systems of intentional emergent narratives. For example we can say that *Ironsworn* (Shawn Tomkin, 2018) or *FATE* (Evil Hat, 2013) mechanics are designed to create an emergent narrative, so they have intentional emergent narratives, meanwhile other games like *Dungeons & Dragons 5e* itself, doesn't have this systems even though they could create emergent situations also, but coming from the intersection of random tosses and players imagination, rather than from an intentional system. *Dungeons & Dragons 5e* then, has an unintentional emergent narrative system.

On the other hand, another problem becomes visible when we look at role-playing games and their systems, analog or digital. In the field of game design, there is a

tension between the game as a system (A systemic vision, very formal) and the game as a user experience. The game was generally considered a logical and integrated system, but in recent years it has been observed that the analysis of the user experience and the design oriented to their needs and preferences, as Fullerton (2018) states in his *Game Design Workshop: A Playcentric Approach to Creating Innovative Games*, is fundamental and of equal or greater relevance. That is why we visualize two macro variables to analyze the ability of an analog or digital role-playing game to create emergent narratives, the user experience and the game system. The units of analysis oscillate between the analysis of transcripts of interviews with players and GMs and the transcripts of tabletop role-playing games, as the main variable of the user experience, and the analysis of analogue and digital role-playing games, of its rules, mechanics and dynamics, as the main variable of its systems. At this point of the research, we selected the players and GMs to be interviewed from our close circles and a short range call for arms did in social networks like discord or telegram, but the idea from now to the end of the PhD research is to aim better to specific profiles looking for better data. This should take in consideration ethnic background, economic status, gender, age, consider what systems are they playing in. In this sense we are right now designing digital ethnography strategies mixed with principles of grounded theory (Strauss & Corbin, 1998) and the usage of qualitative software like NVivo.

In summary, with this PhD thesis we would like to analyze the key elements that define a unique and rich gaming, social and entertainment experience, such as the one that arises around a table in an ARPGs session. Once these key elements have been identified through user experience and systems analysis, consider their digital feasibility and the ability to generate similar experiences in video games, a medium that for the moment is limited to trying to imitate such experiences without actually fully emulating them, at least as far as memorable experiences are concerned. This is the main problem that this study addresses.

The emerging narrative that appears by system in the ARPGs sessions becomes a unique narrative artifact, which stimulates the imagination of the players within a collaborative context and creative freedom. The DRPGs have failed, despite all the technological advances, to emulate this gaming experience. Could an analysis of the ARPGs help the DRPGs to achieve it? Kreminsky (2020a, p. 33) notes that procedural generation “*provides creativity support features that would help players overcome four major barriers to creativity*”. We see in some works like this one that the problem of the **convergence of role-playing games**, from the analog to the digital, as well as an exploration of possible solutions, has gradually been outlined over the last few years. An attempt will be made to expose throughout this work the most recent studies and their proposals and solutions to a problem that we consider well situated and posed. By the way, it is important to say that at this moment we made all the literature research, we made half of the interviews and transcriptions and half of the case analysis (ARPGs and DRPGs) and started to write the theoretical framework, and we expect to do the other half of the interviews and case analysis with more academic methodology (thats one of the aims of this PhD consortium presentation, to gather methodologies not known) and finalize the writing of the PhD in this year and the next. Just to clarify.

ACKNOWLEDGMENTS

Thank you very much to my Thesis directors, Antonio José Planells de la Maza, Víctor Navarro Remesal and Jordi Sánchez Navarro, and to the reviewers of the short abstract for their clever and relevant feedback.

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