

# Directed Emergent Drama vs. Pen & Paper Role-Playing Games

Maria Arinbjarnar and Daniel Kudenko<sup>1</sup>

**Abstract.** This is a position paper on the difference in role-playing between Computer-Based Role-Playing Games (CB-RPGs) and Pen & Paper Role-Playing Games (PP-RPGs) and how the architecture of the Directed Emergent Drama (DED) engine will facilitate more of the core characteristics of PP-RPGs than current CB-RPGs do.

## 1 Introduction

Current computer games fall short of providing a complete RPG experience for a number of reasons, the most prominent being that the storylines are pre-authored and do little to accommodate an independent Role-playing style. Role-playing refers to how the player can enter into a role, such as an evil wizard, and play that specific role through the game.

These are some of the core reasons for the creation of the Directed Emergent Drama (DED) engine. The DED architecture facilitates the guided emergence of an interactive drama using actor agents, a director and schemas. Schemas are generic structures used by the director to guide the actor in creating an engaging and immersing drama for the player. For a detailed description of DED see [1].

Due to lack of space we omit the technical details of DED and emphasise the differences between role playing in PP-RPGs and CB-RPGs and how the DED architecture will facilitate the core characteristics of PP-RPGs into future CB-RPGs.

It remains to be seen whether increasing the level of role-playing and emergent drama in CB-RPG will increase players enjoyment. This would need to be measured with empirical user studies.

## 2 Managing the Game

The Game Master(GM) in PP-RPG acts as a storyteller for the other players guiding them through an interactive drama, an adventure-world full of monsters and NPCs played by the GM. The GM is also the judge in all matters concerning game rules [4].

### 2.1 The Storyteller

*“Pen-and-paper role-playing is live theatre and computer games are television.”* Gary Gygax, as quoted in [9]

In *Neverwinter Nights* [2] character alignment affects the players progress in the game by for instance hindering players playing druids in getting full access to their powers and the druid community if the player has not been careful to keep the character alignment as good. It will also affect what sub quests are available especially when it comes to quests that are for the advancement of a specific role and need a specific alignment. Still it does not change the main story or

the main story plot, the player will need to finish specific main quests in order to advance and complete the main story. Nothing the player does will affect the pre-authored plots of the game.

Fallout 3 [6] has brought this idea even further, players actions greatly affect the characters reputation and opportunities. The availability of quests is directly linked to players actions; how much they explore the world, what they say in conversation, and what skills they pick when levelling up. Still the same can be said for *Fallout 3* as with *Neverwinter nights*: nothing the player does will change the pre-authored plots or the main storyline. The player is always playing along one branch of a multi-linear story that essentially follows the same fundamental plot-points each time. This means that players will not get a novel story experience when replaying the game, which makes it very repetitive and lacking replayability.

in PP-RPGs the story emergence depends on player actions and the GMs skill in providing an engaging and rich environment. The core difference is that PP-RPGs are interactive dramas while CB-RPGs are incorporating a narrative into a game. The latter has a number of problems that Juul relates well in [5]. Essentially you can't have narration and interactivity at the same time any more than you can have panorama and drama at the same time. The two are a contradiction.

The DED architecture facilitates the emergence of interactive dramas using schemas. The director will constantly monitor the drama and deploy schemas as needed. Schemas structure the emergent drama by giving actors goals, knowledgebase and appropriate actions to choose from. The schemas are not small pre-authored stories like the vignettes in [8] or plot points in a plotgraph as in [7]. The schemas are generic structures used by the director to structure improvisational acting. This means that an actor receives goals to accomplish and relevant generic actions to use, the actions are further supported by a knowledge base which the actor can then use to determine what is an appropriate action each time with respect to the characters; emotion, situation and personality. This facilitates the emergence of a drama where a user can interact with the actors and story world freely and directly influence the unfolding drama.

### 2.2 The Actor

Another important role of the GM is that of playing all NPCs that the characters encounter. Currently the NPCs in CB-RPG are pre-scripted rather than autonomous and in *Fallout 3* there is even a voice enactment for each line of text.

In the DED architecture the actors are autonomous and choose an action dependent on the situation each time like an improvisational actor would. The actors are not following a plotgraph. The director does not direct the actors, instead they receive guidance from schemas on what is appropriate with respect to the current status of

---

<sup>1</sup> The University of York, England, email: {maria,kudenko}@cs.york.ac.uk

the drama. This means that the actors use the actions and knowledge-base that they have received from schemas to form sentences and action sequences directly in response to the environment and interactions of other characters, the user, and the personality and emotions of the character they are playing.

## 2.3 The Judge

*The DM should listen to the players and weigh their arguments fairly when disagreements arise, but the final decision belongs to the DM. The Dungeon Masters word is law!* Gary Gygax [4]

Perhaps the only GM task that a computer can currently master is that of handling the game rules because of how exact it is in using calculations akin to that of the dices used in PP-RPG. Still it falls short even there, both because players can frequently use bugs to their advantage and cheat, and because it is unable to adapt the rules to allow for a more fluid story-emergence like a GM can.

A GM needs to read volumes of books before being sufficiently familiar with the game rules to skilfully guide players through a game. Novice GMs sometimes fall into the beginners trap of being too strict on rules so that it becomes detrimental to game play [3]. The DED architecture shies away from strictly rule based scenario towards preserving the fluency and interaction that PP-RPGs offer. The DED architecture facilitates this by not having the same levelling up mechanism that is in RPGs, and no possibility of dying or loosing in the drama. Each drama that the user experiences will be scored and in addition to informing the users on how well they did the result will be used to offer dramas that best fits the users style of play, dramas that provide a challenge and entertainment for the users.

*"The secret we should never let the gamemasters know is that they don't need any rules."* Gary Gygax, as quoted in [10]

## 3 Storytelling in PP-RPG's and DED

Quality GMs do not author a complete adventure for each game, rather they decide on certain key elements that are needed to start the adventurers on their way. These elements include key characters of the world and what their aims are were they hail from and their relationships. The GM will also decide on an inciting event to gain the adventurers interest.

The DED architecture facilitates the same using the DPGE to create a past for characters and their relationships and an inciting event for the interactive drama. It is important not to set a requirement that the player needs to enter a certain room or talk in a specific way to some NPC to progress a pre-authored story. Forcing the player down a specific narrative path is called railroading.

### 3.1 Railroading

*"Sometimes G.M.s will write out an adventure's entire plot, soup to nuts. This is a dangerous thing, because it inherently contradicts one of the fundamentals of role-playing: the players should be allowed to determine the pace and direction of the adventure."* Bill Coffin [3]

As discussed before this is the core difference between PP-RPGs and CB-RPG

*"Making the players figure the story out for themselves is tantamount to having something hidden in your hand and forcing your friends to guess ad infinitum what it is, even after their desire to guess has long since gone away."* Bill Coffin[3]

This type of game play was very common in the early CB-RPGs, players needed to find that item or button hidden in one of the 80+

rooms of a castle or dungeon or the games story would not continue. In current games this has all but been removed. What remains though is the game's requirement of completing quests and talking to NPCs in the correct order. For instance in Neverwinter Nights the player needs to take care to find and speak to all quest givers before entering any dungeon, because killing that zombie or villain before having received that quest will result in not receiving experience points and rewards that go with it.

*"In the end, having a solid plot line is not nearly as important as being able to make up a decent plot line on the fly."* Bill Coffin[3]

Having the plot develop on the fly is exactly what the DED architecture facilitates, the director is constantly monitoring the success of each schema deployed and if schemas fail, for instance because the user does something that violates their constraints then that schema is revoked and the director searches for a new schema that better suits current status in the drama and the player and actors current actions and mental status. The director is responsible for having the drama follow a dramatic arc and to conform to some specific genre. The director does not try to guide the user in any way. Only the actors interact with the user.

## 4 Conclusions

It is the lack of a truly vicarious adventure that the DED architecture aims to fill by facilitating the emergence of a structured drama from player and actors' interactions. In this paper we shared how the DED architecture facilitates similar experiences as provided by PP-RPGs, due to parallels in the fundamental approach to interactive drama.

Increasing basic role-playing concepts in CB-RPGs is very likely to increase player satisfaction by appealing to a larger audience and by increasing the degree of engagement and immersion. This remains to be tested with empirical user studies.

## 5 Acknowledgements

We want to thank our anonymous reviewers and Game Master Florian Berger for their excellent suggestions.

## REFERENCES

- [1] M. Arinbjarnar and D. Kudenko, 'Schemas in directed emergent drama', in *proceedings of the 1<sup>st</sup> Joint International Conference on Interactive Digital Storytelling ICIDS08*, Erfurt, Germany, (2008).
- [2] Bioware. Newerwinter nights. <http://nwn.bioware.com/>, 2002.
- [3] B. Coffin, *Rifts: Game Master Guide*, Palladium Books Inc, September 2001.
- [4] G. Gygax, *Dungeon Module B2: The Keep on the Borderlands - Introductory Module for Character Levels 1-3*, Berkeley Top Line Distributing, 1980.
- [5] J. Juul, 'Games telling stories?', *The International Journal of Computer Game Research*, 1(1), (2001).
- [6] Bethesda Softworks LLC. Fallout 3, 2008. <http://secondlife.com/>.
- [7] B. Magerko, 'Story representation and interactive drama', in *Proceedings of the Artificial Intelligence and Interactive Digital Entertainment conference (AIIDE)*, (2005).
- [8] M. Riedl and N. Sugandh, 'Story planning with vignettes: Toward overcoming the content production bottleneck', in *proceedings of the 1<sup>st</sup> Joint International Conference on Interactive Digital Storytelling ICIDS08*, Erfurt, Germany, (2008).
- [9] S. Schiesel, 'Dungeon masters in cyberspace', *The New York Times*, (2006).
- [10] A. Varney, 'Thoughts at non-random', *AMBER DICELESS ROLE-PLAYING*, (1992). Published as a sidebar to Lester Smith's review of Amber Diceless Roleplaying.