

An Experiment in Improvised Interactive Drama

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Abstract. To inform the design of interactive drama systems, we investigate the experience of an interactor being part of a story that they can have a fundamental influence on. Improvisational theatre might serve as a model for this experience, where there is no pre-scripted plot; each of its actors shares responsibility for the collaborative emergence of a story. This requires a performer attitude from the interactor. We describe an experiment in which improv actors create a story together with subjects who have no improv experience, to find out how we can characterize this experience, and how it might be achieved. Our results support a recent hypothesis that an interactor in interactive drama might be treated as a collaborative performer rather than an (antagonistic) player.

Keywords: Interactive Storytelling, Dramatic Presence, Interactive Drama, Improvisational Theatre.

1 Introduction

Recent advances in computer game development and virtual reality have opened up the potential for creating *interactive drama* systems, a particular form of interactive entertainment where a user interacts with a story world by assuming the first-person role of one of its characters. A number of interactive drama systems have been developed within the interactive storytelling community (perhaps the most famous being *Façade*, [1]). One major difficulty that the community still faces, is that the high level of interaction freedom that virtual reality and computer games as media provide, may clash with the long-term dramatic structure or closure that would give the interactor a story experience. A common assumption underlying this ‘narrative paradox’ is that interactors are willing to sacrifice dramatic development to exert their interaction freedom to do ‘whatever they want’, and should therefore be restricted or corrected in their choices. Recently it was hypothesized that interactors might be acting as collaborative *performers* rather than antagonistic *players*, if they are expecting to be rewarded by meaningful dramatic interaction rather than ludic incentives common in contemporary computer games [2]. This view implies that interactors will be carrying part of the authorial responsibility for the drama, not dissimilar to actors in improvisational theatre. Here, improvisational actors co-create scenes without any explicit guidance or centralized direction as to what the story should be, and none of its participants can control its outcome.

We conducted an experiment to investigate whether improvisational theatre could serve as a model for interactive drama. If we give improv actors the task not to entertain an audience, but to engage a participant who has no improv experience, and as such might *not* be employing the same techniques that improv actors have acquired in their training, will they succeed in delivering a story-like experience to the interactor? What would the actors have to do to compensate for the user's lack of experience in improvised story making? Does the interactor indeed take on the role of a performer rather than a player?

This experiment is related to the live interactive drama experiment within the OZ project [3]. In this experiment, actors played out a performance on a theatre stage in order to engage an interactor participating in the drama. A director used a predetermined graph of desired scene sequences to give private directives to the actors, in order to ensure a certain dramatic development. The experiment was designed to investigate how it feels for an interactor to be immersed in a dramatic virtual world. The lesson learned from this experiment is that the experience of dramatic presence, as they call it, can be engrossing and powerful and that interactors experience a story very different from spectators. Interactors found interactive drama to easily cause immediate and personal emotions. The main difference is that in our experiment, there is no premeditated plot, giving the interactor a fundamental influence on the story.

2 Setup of the Experiment

In the experiment we conducted, we tried to achieve meaningful improvised interaction between two improv actors and a participant with no particular improv experience. Two improv actors (5+ years of experience) from the local Theatre-sports¹ group Pro Deo were found willing to participate.

The experiment was performed using a chat client to avoid potential issues of stage fright and performance anxiety. Pilot experiments were conducted to investigate potential problems of using text-based chat as a medium for improvised interaction, but none of relevance to the experiment were found. The client was extended with a `narrate` command, allowing the participants to state information which appears without their chat name (e.g., “It was a stormy night.”).

The setup of the experiment can be seen in Fig. 1. The actors were placed in the same room and were instructed to use out-of-character communication whenever they felt like it. We hypothesized that out-of-character communication between the improv actors would improve their ability to collaborate in engaging the interactor. There is evidence from studies of adult improvisation theatre that professional acting ensembles create more complex plot structures if they are allowed to use out-of-character techniques [5]. The communication of the improv actors was recorded using a webcam.

¹ Theatre-sports is a form of improvisational theatre in which two teams challenge each other to play short improvised scenes in order to earn points issued by a team of impartial judges [4].

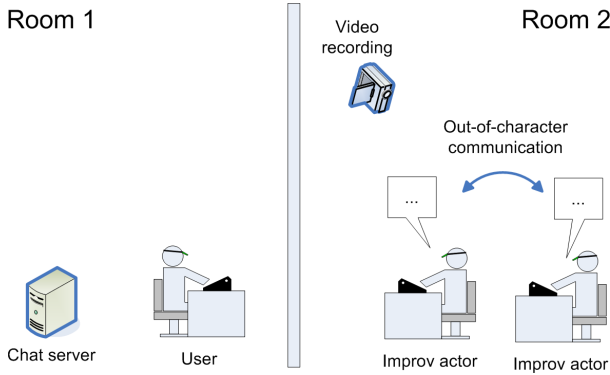


Fig. 1. Experimental setup

We had three subjects, one male and two female, aged 21, 20 and 35 respectively, and asked them in advance whether they had experience with any kind of RPG, with chatting, with virtual communities such as Second Life, with improv theatre (either as spectator or as participant) and whether they liked role playing. Experience with chatting was required for participation.

Each subject played the role of a character in one improvised story. Each story lasted between 30 and 45 minutes. We kept the pre-briefing as minimal as possible; we made it clear that the subjects would be interacting with two other participants (rather than with a computer program), and told them that they would be entering a story world, without giving them any task to achieve. We told them to relax and “see what happens”. The only information given in advance was the location of the starting scene of the story, the rest of the story world was completely filled in by the three participants.

After the experiment, we held semi-structured interviews with the subjects after their individual story experience, using questions about narrative presence factors [6] (e.g., identification with their role, control over the experience and affect) to guide the interview. We included the improv actors in these interviews, expecting that the interview would also function as a discussion between the participants, and might reveal important information about their experiences. We held a separate interview with the improv actors after the whole experiment. We also analyzed the chat transcripts and the video material, annotating any out-of-character communication between the actors.

3 Results

This section describes the results of the experiment, discussing our observations and the interview results. Quotes have been translated from Dutch into English, taking care to stay close to the original meaning.

3.1 Participants and Stories

The first subject was a 21 year old male computer science student. He indicated that he had ample experience with RPG, online chatting, multiplayer online computer games and that he really liked role playing. He had some experience with virtual communities and with improvisational theatre, both as participant and as spectator. The initial location for the story was given as a forest, which resulted in a medieval tale about revenge for damaged pride. During the experience, the subject seemed a bit rebellious, making out-of-character remarks about inconsistencies (“Weren’t you already standing still?”), joking and testing the characters’ reactions.

The second subject was a 20 year old female law student. She indicated that she had ample experience with online chatting, some experience with multiplayer online computer games and some affinity with role play. She had little experience with role playing, virtual communities and improv theatre as a spectator, and never participated in improv theatre. The starting location was a bar, which resulted in a thriller about coke smuggling. The subject did not seem short of inspiration and was really dominating the input.

The third subject was a 35 year old female high school teacher. She indicated that she had ample experience with online chatting, some experience with role playing and improv theatre as a participant, and some affinity with role play. She had no experience with virtual communities, multiplayer online games, or with improv theatre as a spectator. The starting location was a beach, which led to a horror story in which a shark attacked a happy family. The subject seemed really immersed, expressing in-character panic and staying in character during the whole experiment.

3.2 Interview Results

The first subject’s main point was that he found his role in the story and the open-ended starting conditions confusing. He felt that he could resolve any problem by further filling in the situation (the subject gave the example that if he were to encounter a locked door, he could blow on a whistle to have a battering-ram appear). He characterized his experience as a game rather than a story, and clearly indicated a need for rules that constrained what he could do. He described his own role to be that of a ‘dungeon master within his own dungeon’. As a result, he did not feel very much immersed in the story. He did however enjoy the creative side of the experience, wondering what he could create and how the other characters would react to his actions.

Unlike the first subject, the second subject felt that she played out the story as if she was really there. She found it an enjoyable story and could visualize it. She felt that she had a fundamental influence on the story, and felt satisfied with this amount of influence. She didn’t feel there was anything she was supposed to do. The actors commented that they felt that the subject was making the story, and they were going along with it, rather than the other way around. This had the effect that at times they were struggling to ensure story development. At times,

the subject provided massive amounts of backstory without any development forward in time.

The third subject felt like she was both playing a role, and immersed in the story. She observed that the actors kept changing roles and considered doing the same, but felt it was not necessary. She really felt as if she was there in the water and had vivid images of the story world. She also felt that she had an influence on the story (e.g., she ‘planted’ a red flag on the beach, from which the whole shark-attack horror theme had sprung). She had the feeling that things were happening continuously and that she had to keep on providing input. Just like the second subject, she did not feel like she needed any more or less guidance; the location was enough for the feeling that “something would happen.” She said the story could have easily lasted ten times longer, which contrasted with the remark of the actors, who found the story becoming a bit boring because they were in the water all the time and nothing really happened. The subject did not know how they would be saved, but considered the solution to be the actors’ responsibility. The subject mentioned she was not sure whether the characters were allowed to die, which indicated a certain expectation of constraints. She said she had much fun playing the story, and would also have enjoyed it had the story been different.

3.3 The Actors: Observations and Interview Results

During the three stories, the improv actors conferred with each other by (1) discussing story control issues (e.g., “There is still no relationship [defined] between you and Annie”), (2) discussing possible story direction (e.g., “Shall we see if we can make her transport our drugs?”), (3) establishing common ground in the interpretation of the participants’ intent (e.g., “She doesn’t dare to go into the water.”) and (4) expressing out-of-character experience (e.g., “Haha, she’s gonna play her own extra character, great!”). After the experiment, there was a discussion with the actors about their experiences with the three stories.

Although the first subject had indicated a need for more constraints, the actors had reacted in the second and third story by providing *less* initial constraints, leaving more initiative to the subjects. This seemed to have the effect that participants felt that it was *their* story they were acting out, and that the actors went along in the story world of the subject, rather than the other way around. They mentioned this as a possible explanation for the fact that the second and third subjects had no feeling of needing more guidance and reported that it was ‘just right’. The actors were very aware of their task as managers of the story, and of the input they were providing to the story. They described this task to be fairly similar to improv acting; they were looking for ways to introduce and resolve conflict. There were times during the experiment where this happened effortlessly, whereas at other times they were heavily deliberating and discussing their options, which they mentioned to be different from normal improv acting. Their greatest fun was in seeing how the subjects responded to their offers, especially when it went as predicted, to see that ‘it worked’. They had much more difficulty ‘predicting’ the first subject than the second and third.

4 Discussion

The described experiment explored the application of an improvisational theatre model to interactive storytelling, and in particular the hypothesis that interactors in such a setup can be viewed and treated as performers, collaborating with the story construction, rather than as players, acting against it. Although the number of subjects was small, the results mainly support this view in that the subjects enjoyed the aspect of being present in the story as well as the aspect of actively seeking to achieve dramatic development, being collaborative, creative and explorative, co-creating stories by providing input to the fictive reality of the story and finding out its consequences. The second and third subjects demonstrated highly collaborative behaviour, rarely blocking input and actively participating in the story development, not only by reacting to the story world events, but also by proactively providing input to the fictive reality. The first subject seemed more antagonistic. He was clearly looking for constraints, indicating he expected to play a game offered to him, rather than perform and create a story in collaboration. It is likely that he had strong expectations based on his RPG experience. His remark that he was the ‘dungeon master of his own dungeon’ was indicative of these expectations. This might explain his limited sense of dramatic presence compared to the second and third subject.

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