

Chapter 2

Serious Storytelling: Narrative Considerations for Serious Games Researchers and Developers

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ABSTRACT

*In this chapter, the authors explore the nature and function of storytelling in serious games. Drawing from the field of narratology, they explore research related to narrative expression and relate those ideas to serious game design and development. They also consider interactive storytelling and apply and adapt traditional ideas about story as a static and predetermined entity into this new setting, a setting which depends in part upon gamer participation to craft dramatic experiences. The authors conceptualize narrative as a combination of plot, character, and environment, and then use that conceptualization to devise a narrative taxonomy that is useful as a heuristic for developing stronger stories in serious games. The chapter concludes with an analysis of the hybrid FPS/RPG game *Fallout 3*, an analysis included to show that even highly regarded and award-winning games are lacking in the narrative coherence necessary to improve the level of dramatic immersion in virtual worlds.*

INTRODUCTION: GRENWIN THE GOBLIN

You are still enjoying your newfound fame as slayer of the great white serpent (and the popularity this earned you with the townfolk of Eleven Isles) when chaos suddenly erupts in the Rusty Hinge tavern.

Grenwin the Goblin hacks down the door with a rusty axe and crashes into the room. Patrons scatter, shrieking in terror, as the wiry green beast swings the axe about carelessly, smashing flagons of ale and overturning tables, all while cackling maniacally and searching the room for something to steal or devour. If he sees you, all is lost, for he must know it was you who stole his clan's map to navigate through the forbidden mountains. You

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duck down from your position at the far end of the darkened room, hoping to avoid detection. Alas, it is no use. Grenwin apparently has excellent eyesight. The abomination trains his beady eyes on you. His eyes narrow as he recognizes you and he smiles cruelly. You panic as the goblin reveals a surprising burst of speed and streaks across the pub in your direction. If only you could remember Pythagoras' theorem and calculate the correct trajectories, you would let loose a flurry of virtual arrows and fell this foul creature. As it stands, not having prepared as instructed by Zorak the Bard, you must defend yourself with your untrained peasant's hands and hope for the best...

This paragraph might describe a scene taken from any number of fantasy based role-playing games (RPGs). Though primitive and brief, the example above is also narratively complete. It contains a protagonist: the character controlled by the player. There is a goblin antagonist to provide conflict and there is an environment in which the action is anchored. There is also a plot, albeit a brief one: escape from the pub with your life and wits intact. The central concern of the player is to apply whatever knowledge she has in order to survive the ordeal at hand and then venture out into the fantasy world to continue her adventures. The fact that the paragraph above just happens to be useful for a serious game to teach trigonometry is largely irrelevant. Stories are equally important for serious and non-serious games alike. What is most important is that the game's story offers a chance for the player to project herself into the character of a virtual heroine that is facing an attacking goblin.

Using gaming or simulation parlance, we might call this phenomenon *immersion* or discuss it in terms of *presence* – the replacing of real world cues with virtual cues in successfully crafted fantasy environments. In psychological studies of narrative, it is more specifically known as *narrative transportation* (Green, 2004) when

restricted to the influence of the narrative dimension of a system. In this brief and intense moment, the player *becomes* the young heroine, and the story and gameplay merge together as a vehicle for transportation from a real to a virtual identity. The goal of serious games is to create a virtual environment in which this pathway is reversed; by encountering and solving problems in the game world, the player learns skills and builds knowledge useful for problem solving in the real world.

While complete in a narrative sense, the problem with the story of Grenwin the Goblin (which is one of a thousand narrative instances we might extract from an RPG) is that the learning moment used here causes incongruence with the overall story. The learning objectives, which focus on knowledge of the Pythagorean Theorem, do not align with the dramatic objectives, which should showcase the intense, adrenaline-filled process of escaping from a tavern while engaged in battle with a ferocious goblin. Further, the player's actions may serve to further undermine the dramatic quality of the action. She may choose to simply give up, allowing the goblin to tear her avatar limb from limb, or she may decide to take advantage of the pathfinding limitations of the enemy artificial intelligence and find a way to "cheat" the system by standing one step behind the goblin's reach and delaying the conclusion of the scene indefinitely. The inconsistency between the game's story and the game's learning content can be a debilitating problem when trying to motivate players to keep playing and learning. While we cannot always control the actions of the player or the way she plays the game, we *can* adjust our storytelling technique to better align our learning objectives with our dramatic objectives.

As this example illustrates, interactive storytelling is an important craft for serious game developers to understand. When done correctly, storytelling can aid in the game design process in several ways. A strong narrative can improve player motivation by encouraging the player to

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