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 di-
menion 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 prob-
lem 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 ac-
tions 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 sto-
rytelling 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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