Chapter 5.11

The Haunted School on Horror Hill: A Case Study of Interactive Fiction in an Elementary Classroom

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ABSTRACT

As gaming technology for personal computers has advanced over the last two decades, the text-adventures that predominated in the 1980s ceased to be commercially viable. However, the easy availability of powerful authoring systems developed by enthusiasts and distributed free over the Internet has led to a renaissance in text-adventures, now called “Interactive Fiction.” The educational potential in playing these text-based games and simulations was recognised when they were first popular; the new authoring systems now allow educators to explore the educational potential of creating these works. The authors present here a case-study using the ADRIFT authoring system to create a work of interactive fiction in a split grade 4/5 class (9 and 10 year-olds) in Quebec. They find that the process of creating the game helped improve literary and social skills amongst the students.

INTRODUCTION

Advocates for so-called “serious games”, computer games that are played for purposes other than fun have made the case that computer gaming presents a novel way for students to learn (Chen and Michael, 2005). Not only do these games engage multiple learning styles (visual, auditory, kinaesthetic, and reading), but they also set the student up to participate in multiple cycles of “cognitive disequilibrium”, in which the student
forms a hypothesis (i.e., “what happens if…”),
tests it, and revises (i.e., “oops, I lost the game
when I did that – better try something else!”) (cf.
Van Eck, 2006, p. 20).

We present here a case study in which we
employed a specific genre of computer gaming
(“interactive fiction” or “text adventure”) in an
experiment to see whether it could enhance the
literacy skills of students in a grade 4/5 split class
(9 – 10 year olds). Text-adventure games were
prominent in the 1980s, a time when computer
graphics hardware and software were rather rudi-
mentary. In this case study, the students created a
text-adventure game and played it with younger
students. The creation and playing of the game
had enormous positive benefits for increased
literacy skill. It also had the pleasant side effect
of fostering class unity and improving the social
skills of the students as they worked together to
create the game.

We found five major benefits to incorporating
interactive fiction in this classroom:

1. It increases student engagement with the
lesson.
2. It meets the needs of various learning styles
or “multiple intelligences”.
3. It provides opportunities for students to
become leaders in the classroom.
4. It allows all learners to contribute and ex-
perience success
5. It allows students to take ownership of their
learning.

It is important to note here that we did not
simply load a work of interactive fiction onto a
school”s computer lab computers and say, “Go
play”. The role of the teacher in using interactive
fiction is crucial. To understand the benefits and
possibilities of using interactive fiction in the class-
room, we must first understand what interactive
fiction, and its predecessor, the text-adventure, is.

THE PREHISTORY OF
COMPUTER GAMES

Text-adventure computer games had their origins
in the 1975 main-frame computer game Colossal
Cave (Montfort, 2003, p. 85-93), also known as
Adventure. Colossal Cave was a room-by-room
description of a cave system near the author’s
home in Kentucky. In its earliest forms, a player
could only move through the rooms using the
cardinal directions, or by typing “up” or “down”.

It was not so much a game as a simulation of a
particular environment, albeit one described in
text. When Colossal Cave began to be widely
distributed, other programmers added characters
into it. The ability to pick up or use particular
objects, in particular ways, was added. Perhaps
the earliest non-player character to gain fame in
the computer gaming world was the “Thief”, who
would follow the player around, occasionally
pick-pocketing items from the player, just when
the player needed them most.

As text adventures grew more complex and
more popular, they became increasingly sophis-
ticated. They could accept a wider vocabulary of
words, and syntax that was more complicated.
The computer “parser”, the interface between
the player and the world being simulated, also
grew more sophisticated in its interactions with
the player. Typing “go north and get the hammer”
might be met with the response “I can’t go north,
and anyway, what do you want with a hammer?”.

Notice the “I”. In the game, other non-player char-
acters always interacted with “you”: “The thief
tells you, ‘I only need a few more coins and I can
retire!’ But when the player tried to do something
that the game did not allow, this omnipresent “I”
would come to the fore. It was as if the parser
was a kind of homunculus in the player’s head,
at least when the player was embodied in the
world. This shifting viewpoint within the fiction,
though complex, is a useful jumping-off point for
discussing point-of-view and narrative structure
in fiction more generally, because it confronts the
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