

The history and future of computer RPG development

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<p>Sammandrag:</p> <p>Detta slutarbete forskar i historien och framtiden och utvecklingen av single-player datorspel som är av genret rollspel. Slutarbetet beskriver den utveckling som ledde till de första grafiska dator-rollspel, och den utveckling som har skett sedan dess. Slutligen på basis av denna historia ges en sammanfattning på framtiden av spelutveckling. En trend är att spel görs endast av stora företag. En annan möjlighet är att de stora företagen gör spelen, men fristående utvecklare har små marknader, mest på olika nätverk som PlayStation Network, Xbox Live or App Store för mobila manicker. En eventuell möjlighet är att begränsningarna på mobila apparater gör att hela historien för genret spelas om. Slutligen kan man klart se på historien att det finns en trend till on-line spel och rollspels-element håller på att blandas med andra genren.</p>	
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<p>Abstract:</p> <p>This thesis looks at the history and future of single-player computer role-playing game development. It describes the development of video games into graphical role-playing games, and the development of the genre from that point onwards. Finally, from this history, it outlines several possible scenarios for the future. Development can continue on the trend it is now, with big game studios developing huge franchises. Another possible future is that the aforementioned trend keeps on growing, but independent developers have small niche markets like the PlayStation Network, Xbox Live and Mobile App Market. The limited power in mobile games can lead to a third option, in which the history of computer role-playing games plays out again in mobile platforms. Finally a trend towards on-line gaming and a convergence with other game genres can be seen from the history.</p>	
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<p>Tämä opinnäyte tutkii yhdelle pelaajalle suunnattujen tietokoneroolipelien kehityksen historiaa ja tulevaisuutta. Ensimmäisenä käydään läpi pelien kehitys ensimmäiseen graafiseen tietokoneroolipeliin asti, sen jälkeen tutkitaan lajityypin kehitystä siitä pisteestä tähän päivään. Lopuksi todetaan että tietokoneroolipelien historiasta on nähtävissä trendejä joista voi päätellä useamman skenaarion mahdollisen toteutumisen tulevaisuudessa. Selkeä trendi historiassa on ollut kehitys kohti yhä massiivisempia pelejä ja suurempia pelitaloja. Toinen mahdollisuus on että tämä trendi jatkuu, mutta riippumattomilla pelinkehittäjillä on pienet markkinat uusien jakelukanavien myötä, kuten PlayStation Network, Xbox Live, ja mobiililaitteiden app storet. Mobiililaitteiden rajoitettu teho saattaa johtaa kolmanteen mahdollisuuteen, eli siihen että roolipelien historia käydään uudestaan läpi. Lopuksi historiasta on selvästi huomattavissa trendi on-line pelaamista kohtaan, ja roolipelielementtien käyttämiseen yhdessä muiden lajityyppien kanssa.</p>	
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1 INTRODUCTION

1.1 Research Topic

The object of this thesis is to answer the question “What will the future of single-player RPGs look like, and does the independent developer have a role in it?”

1.2 Motive for the research

I have always deeply enjoyed taking part of all sorts of games, whether it was chess, football, tabletop role-playing games or video games, the last of which this essay is about. When I in my early teens discovered I had a knack for programming that too happened through games. I used to spend countless hours perfecting some simple games on 7th grade, to the astonishment of my teacher in computer science. I was also very much into both tabletop and live role playing at the time, so in a way it’s natural that I prefer the more emotionally engaging game genres to the ones that simply require good motor skills or quick cognitive thinking. For me, the most emotionally engaging video games have been in the CRPG genre.

1.3 What is a computer role-playing game

For the purposes of this thesis the term computer role-playing game CRPG is used to signify computer games in the role-playing genre, developed mainly for a single-player game experience.

- In CRPGs the player assumes the role of one or several characters and feels some sort of emotional involvement with them. A central aspect is the development of the character(s). This development usually happens in levels, although

some CRPGs use different systems of development. Levels are gained by earning experience points from different actions performed.

- Most CRPGs are set in some variant of a medieval high fantasy world setting, derived from the works of J.R.R. Tolkien. However, there are many games set in other kinds of alternate realities, such as a sci-fi world and settings featuring specific historic eras.
- Most CRPGs have some emphasis on tactical combat and feature a set of character attributes or statistics on which the combat is based.
- CRPGs feature a narrative which unfolds as the player proceeds in the game, and this plot often involves interaction with non-player characters.
- A common characteristic in CRPGs are different puzzles, riddles and mazes, though such elements are often present in games of other genres too, such as adventure games.

1.4 The scope of this thesis

This thesis examines CRPGs that meet the above criteria, with some exceptions for particularly noteworthy games or games that have significantly influenced CRPGs in some ways.

1.4.1 MMORPGs

While I recognize that Massively Multiplayer On-Line Role-Playing Games or MMORPGs, such as World of Warcraft (Blizzard 2004), form an important part of today's gaming world, they are ultimately more focused on the social aspects offered by the game than interaction with the game environment. Another distinct difference is the lack of a plot in MMORPGs. While there may be a rich background story and events that further that background story, there is no true narrative and the game has no ending. These differences contribute to the fact that MMORPG gameplay is a completely different experience than the one offered by CRPGs and MMORPGs are thus only mentioned in the context of the influence they have had on CRPGs.

1.4.2 Other genres

While some strategy games feature very similar elements to CRPGs, the genres are based on very different concepts. CRPGs ask the player to identify with a single character or in some cases with a group of characters, while strategy games put the player in the role of a general or god with few emotional ties to his subordinates.

The distinction between an adventure game and a CRPG can be hazy, but game historian Matt Barton offers one aspect that clearly divides the genres in his book *Dungeons & Desktops* (2008):

Unlike an adventure game, where tasks are always and forever solved by entering the correct combination of commands (or performing the right sequence of tasks), there is always a random element to the outcome in a CRPG. Throwing the bucket of water at the dragon's face in Sierra's adventure game *King's Quest* (1984) will always take care of the dragon, whereas no two battles with the various dragons in BioWare's CRPG *Baldur's Gate II* games are identical.

While CRPGs borrow elements from both strategy and adventure games they are, like MMORPGs, outside the scope of this thesis in other aspects.

1.5 Methodology

In the course of this study, two primary methods of research were used.

In order to provide a credible look at the modern CRPG landscape and to understand the history that led to it, I have researched the history of CRPGs and games in general online and in books.

I have also spent hundreds of hours doing participant observation in the form of playing and re-playing many of the games mentioned in this thesis, both in order to gather material and to verify claims made in reviews and articles about them.

In addition I have interviewed a professional programmer working in the video game industry and a video game collector to get a wider perspective on the CRPG industry and its history.

1.6 Structure

First presented is the early history of video games, detailing how the concept and industry around it was born. Here video games are discussed in a wider scope to give an understanding of the circumstances under which the first graphical CRPGs were developed.

We then look at the historical development of western CRPGs through examining influential games and games that were typical of examples of CRPGs in their era. The games are presented from the aspect of both the developer and the player, discussing both technical aspects and aspects related to subjective gaming experience.

Because CRPGs are quite different in Japan, next there is a section dedicated to Japanese CRPGs, or JRPGs as they are known. However, proper analysis of Japanese video games, let alone role-playing ones, would require in-depth knowledge of the Japanese culture and language. That is why this thesis covers only the two most influential and well known series that were translated into English. In addition two influential games that are not part of these series are discussed briefly.

Finally we discuss the current CRPG landscape, and the independent developer's role in it, based on observations made from the history of CRPGs and a look at current technologies.

2 THE PRE-HISTORY OF GRAPHICAL ROLE PLAYING GAMES

2.1 The title of first video game

The title for first ever video game is a matter of some debate. Some claim that *Tennis for Two*, developed by physicist William Higginbotham in 1958, was the first ever computer game – but a federal court in the early 1980’s considered *Tennis for Two* not a so much a game as a simple ballistics simulator, which is why it will not be taken into account for the purposes of this essay. (Nowak, 2008)

The first ever proper video game was a quite complicated space combat simulation called *Spacewar!*. *Spacewar!* was inspired by E.E. Smith’s early interstellar sci-fi novels, and was envisioned in 1961 by three students at the Massachusetts Institute of Technology: Steve Russel, Martin Graetz and Wayne Wiitanen (Graetz, 1981). A working model was programmed in 1962 for the DEC PDP-1 computer, and presented for the public and MIT’s annual Open House in May the same year.

2.1.1 Spacewar!

Spacewar! features two player-controlled spaceships against an astronomically correct star field, trying to destroy each other by shooting torpedoes as shown in figure 1. Both ships also had to avoid colliding with a deadly sun in the middle of the screen, which used simulated gravity to pull the ships towards it.

With *Spacewar!* was also born the idea of separate control devices, which would later evolve into the game controllers we know today. Martin Graetz (1981) describes the birth process of the controllers as follows:

Spacewar! worked perfectly well from the test word switches on the console, except that the CRT was off to one side, so one player had a visual advantage. More to the point, with two excitable space warriors jammed into a space meant for one reasonably calm operator, damage to the equipment was a constant threat. At the very least, a jittery player could miss the torpedo switch and hit the start lever, obliterating the universe in one big anti-bang. A separate control device was obviously necessary, but joysticks (our original idea) were not readily available in 1962. So Alan Kotok and Robert A. Saunders, who just happened to be members of the Tech Model Railroad Club, trundled off to the TMRC room, scabbled around the layout for a while to find odd bits of wood, wire, bakelite, and switch-board hardware, and when the hammering and sawing and soldering had ceased, there on the CRT table were the first Spacewar! control boxes.

Spacewar! quickly became popular and spread to other research centers, where new versions with added features like invisibility, mines and score-keeping were developed. Even if *Spacewar!* would not be the first computer game ever created, it is the first game to heavily influence all games to come, as Stewart Brand points out in his 1972 article for *Rolling Stone* (1972):

Yet Spacewar, if anyone cared to notice, was a flawless crystal ball of things to come in computer science and computer use:

- It was intensely interactive in real time with the computer.
- It encouraged new programming by the user.
- It bonded human and machine through a responsive broadband interface of live graphics display.
- It served primarily as a communication device between humans.
- It was a game.
- It functioned best on, stand-alone equipment (and disrupted multiple-user equipment).
- It served human interest, not machine. (Spacewar is trivial to a computer.)
- It was delightful.

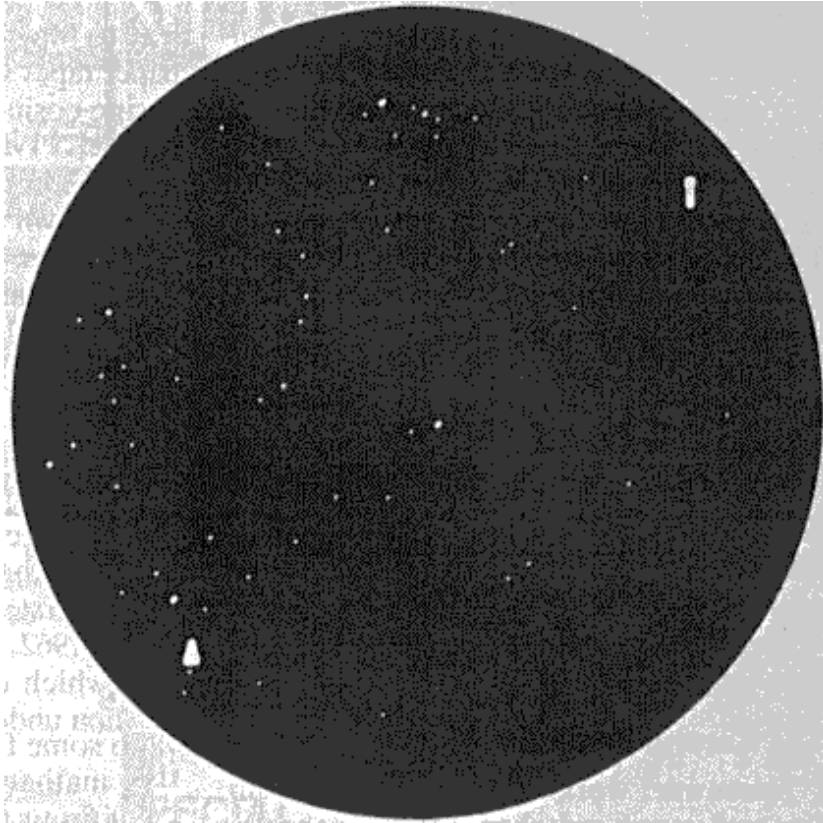


Figure 1. Spacewar! (1972)

2.1.2 The Magnavox Odyssey

In the 1960's Ralph Baer, a Germany-born engineer working with designing military aircraft systems, was designing electronic games as a side-project. According to PONG-story.com, a website specializing in the early history of video games, Baer's first breakthrough came in 1966 in the form of a simple game that allowed two players each control a small light on a television screen. The idea of the game was to chase the other player's dot on the screen.

By 1968 Baer had refined his design into what he called the "Brown Box". It was a console that had several built-in games that you could connect to a regular household television set. The controllers for his console were bulky boxes with rotary knobs. It is worth noting that Baer also invented the light gun, with which players could shoot at targets on the screen. The light gun or different variations of it are featured on several later console systems.

Baer kept on revising and improving the console, all the while trying to find a company that would distribute it. Finally Magnavox agreed to start production and distribution, and the “Brown Box” was released in 1972 with a new white casing as the Magnavox Odyssey.

The Odyssey was all-in-all a fairly simple system, as Peter Nowak describes in his article (2008):

The system, which ran on batteries, was primitive by today's standards. The games were black and white and consisted mostly of blocks of light moving around a screen and the controllers were big blocks with moving knobs. Players switched between games by removing and inserting circuit cards, which did not contain additional software like the cartridges and discs that came later. The cards instead connected different series of jumpers within the console itself, which was hardwired with all the games.

The Odyssey was never a commercial success. Due to poor marketing the public had a belief that it only worked with Magnavox-brand television sets, and the total sales of the console was about 100 000 units.

2.2 Games go commercial

While the Magnavox Odyssey failed to achieve any notable success on the home-entertainment market, others tried a different approach, namely arcades.

2.2.1 Computer Space

Before *Computer Space*, attempts to make *Spacewar!* more widely available to the public were unsuccessful mostly due to the fact that the personal computer was not yet invented, and therefore possible venues for the game were limited to college campuses and the like.

According to a web-site dedicated to *Computer Space* (www.computerspacefan.com) Nolan Bushnell, an electrical engineering student at the University of Utah, was very

impressed by the popularity of *Spacewar!*. Bushnell would later be the founder of Atari, one of the biggest names in the history of the computer game industry. To fund his studies Bushnell worked part time at an amusement park and had noticed that coin operated gaming machines were making a lot of profit. The idea of making a coin operated *Spacewar!* occurred to him, and the concept of arcade video games was born. *Computer Space* was basically a version of *Spacewar!* that ran on simply transistors and diodes, since CPU's were very expensive at the time. It was connected to a television set, and was effectively the prototype for the arcade video game, establishing the basic form of all arcade games to come – that of a dedicated arcade cabinet built only to play one game. However, the game was a commercial failure due to the steep learning curve of the game. Bushnell himself explained in a documentary (*Video Game Invasion: The History of a Global Obsession*, 2004) that:

Sure, I loved it, and all my friends loved it, but all my friends were engineers. It was a little too complicated for the guy with the beer in the bar.

2.2.2 Pong

Having seen a tennis-type game featured on the Magnavox Odyssey, Nolan Bushnell instructed Allan Acorn, a fresh engineer at Atari, to program something similar as a training exercise since Acorn had no prior experience with programming games. Impressed by the quality of the finished project he decided to publish the game.

Pong is a game that simulates tennis. The stage consists of two paddles on each side of the screen as shown in figure 2, which are controlled by the player, or in a single-player game the computer. The paddles are used to hit the ball back and forth, until one player fails to return the ball resulting in a score for the opponent. (Kent 2001.)

Pong became the first commercially successful video game, and effectively led to the start of the whole industry – anchoring Atari as one of the big players in the gaming world. Atari was later sued by Ralph Baer, for infringing on his patent regarding the Magnavox Odyssey.

2.3 The golden age of video arcade games

The golden age of video arcade games is a term that is used for an era of peak arcade popularity and great creativity both technically and design-wise. Developers had to work within the confines of very limited computing power, but still create a variety of different engaging games.

There are different opinions on when the peak era of arcade game popularity known as golden age of video arcade games took place, but most sources agree it was in the early 1980s. (Day 1998, Kent 2001, Whittaker 2004.)

Both video game journalist Steven L. Kent and technology journalist Jason Whittaker place the beginning of the golden age with the release of *Space Invaders* (Kent 2001, Whittaker 2004). Whittaker places it in 1978 when *Space Invaders* was released, while Kent places it in 1979 when *Space Invaders* was released in the United States. Kent also points out that 1979 was the year when vector graphics were adopted by the game development industry, spawning many of the popular early arcade hits.

The end of the golden age is generally placed in the early to mid-1980's, which is when the coin-operated games started gradually to lose popularity and many arcades started disappearing (Kent 2001). Another factor that contributed to the decline of arcade game popularity was the popularization of home consoles and computers (Day 1998) – since you could play the games at home arcades lost their value.

The golden age of arcade video games included the release of such influential titles as *Space Invaders* (1978), *Pac-Man* (1980) and *Donkey Kong* (1981), among others. The game genres suited for arcades favored quick reflexes and generally required quite a short attention span. This means that role playing games and adventure games were not featured in arcades, but as the surge in popularity that the golden age describes affected all game development, it must be mentioned.

2.4 Text-based games

While arcade-type games were developed in a commercial way to meet the growing demands of pubs, restaurants and arcades, the first steps towards more emotionally engaging games were taken by independent programmers in their spare time.

The early format for games that offered emotionally engaging content was text-based, and can be called a form of interactive fiction. In IE-games players use text commands to control their character and interact with the environment. Likewise the computer describes the players surroundings by text (see figure 2). Such games can essentially be viewed as literary narratives as well as games (Montfort 2006), and bring to mind the *Choose Your Own Adventure* book series, where the reader can affect the narrative and outcome of the story by choosing from different options offered by the book.

2.4.1 Colossal Cave Adventure

The very first adventure game ever made is called *Colossal Cave Adventure*. William Crowther, a programmer and an experienced caver, based the game layout on an actual cave – the Mammoth Cave system in Kentucky. Crowther’s first version was made in 1976 and it consisted mostly of simple exploration. In the article “Interactive Fiction? I prefer Adventure” (2001) Don Woods explains how he collaborated with Crowther to expand the game to include puzzles a scoring system. This expanded version was finished in 1977 and includes fantasy elements not featured in the original game.

```
PAUSE INIT DONE statement executed
To resume execution, type go. Other input will terminate the job.
go
Execution resumes after PAUSE.
WELCOME TO ADVENTURE!! WOULD YOU LIKE INSTRUCTIONS?

y
SOMEWHERE NEARBY IS COLOSSAL CAVE, WHERE OTHERS HAVE FOUND
FORTUNES IN TREASURE AND GOLD, THOUGH IT IS RUMORED
THAT SOME WHO ENTER ARE NEVER SEEN AGAIN. MAGIC IS SAID
TO WORK IN THE CAVE. I WILL BE YOUR EYES AND HANDS. DIRECT
ME WITH COMMANDS OF 1 OR 2 WORDS.
(ERRORS, SUGGESTIONS, COMPLAINTS TO CROWTHER)
(IF STUCK TYPE HELP FOR SOME HINTS)

YOU ARE STANDING AT THE END OF A ROAD BEFORE A SMALL BRICK
BUILDING . AROUND YOU IS A FOREST. A SMALL
STREAM FLOWS OUT OF THE BUILDING AND DOWN A GULLY.
```

Figure 2. *Colossal Cave Adventure* (1976)

2.4.2 Games made by Level 9 Computing

One of the biggest producer of text-based games was Level 9 Computing, a british company founded in 1981. Level 9 devised an iterpretation language called A-code which should not be confused with Dave Platt's A-code, a language with which the popular *550 points* extension to *Adventure* was programmed.

Starting with a conversion of Will Crowther's *Colossal Cave Adventure* called *Colossal Adventure* in 1981, Level 9 computing made over 30 games wih A-code.

2.5 The first graphical CRPGs

With the groundwork done by text-based adventure games it was only a matter of time before the genre would see a revision to include graphic elements. The computing power and memory capacity available at the time were however a limiting factor. Creative solutions had to be invented to circumvent these limits.

2.5.1 Adventure

Prior to *Adventure*, which was released by Atari in 1979, console games tended to be fast-paced and simplistic. While quite simple, *Adventure* tried to bridge the gap between these arcade-type games and the likes of *Colossal Cave Adventure* with more meaningful content. Since the Atari 2600 console, for which *Adventure* was made, housed only a very limited memory capacity and using text is quite expensive memory-wise – games with a lot of text were out of the question for it.

Inspired by *Colossal Cave Adventure*, *Adventure* featured a top-down view of a castle, where the goal of the player is to find a chalice and return it to its owner. Roaming the castle are also three dragons, which the player could slay provided he found a sword. Developer Warren Robinett describes in an interview the concept of the game as follows (Connelly 2003):

I played the original text adventure game created by Don Woods and Willie Crowther in 1978 at the Stanford Artificial Intelligence Lab, where my friend Julius Smith worked. I was just finishing my first Atari 2600 game, Slot Racers, and I needed to decide on the next game I would do. I decided that the idea of a network of rooms, and objects you could carry from place to place, and that did things, could work as a video game. And it did. Of course there were a lot of details to work out and problems to solve. Plus my boss told me it was impossible and not to do it. But I ignored him and did it anyway.

Although *Adventure* is the first graphical adventure game, its lack of character personality, character development and general lack of a storyline dictates that it cannot for the purposes of this essay be called a proper CRPG.

2.5.2 Akalabeth: World of Doom & Dunjonquest: Temple of Apshai

There are several titles developed during late 1979, and determining which game is the definitive first graphical CRPG is impossible. For the purposes of this essay the two games that are considered the first, are *Dunjonquest: Temple of Apshai*, and *Akalabeth: World of Doom*, since they are the best known and most influential among the contestants for the first graphical CRPG.



Figure 3. *Dunjonquest: Temple of Apshai* (1979)

Dunjonquest: Temple of Apshai was first released for the TRS-80 microcomputer in 1979 and later ported to the Apple II, Atari computer, DOS, and Commodore VIC-20 and 64. It featured a simple top-down view of room in a dungeon (see figure 3) comprised of a total of 60 rooms. An interesting note is that the manual for the game has a text description of each room, no doubt to compensate for the crude graphics. The passages of text are quite similar to how a dungeon master might describe a room in a tabletop RPG, and are reminiscent of the text-based games like *Zork*. As an example, here is the passage describing Room 28 (Temple of Apshai manual):

The eastern door is wooden and is secured with a simple latch. The room is filled with tables against the north and south walls, holding a variety of metal working tools, all rusty with age. A small forge against the south wall is filled with litter. The scraping sound is head loudest in the northeast corner where a metal shaft runs from floor to ceiling and is connected to a bank of grinding wheels by a complex system of gears and levers. Moving the levers causes the metal shaft to spin in place and a grinding sound comes from the attached gears.

Unlike most early CRPGs, *Temple of Apshai* is set in real-time. The combat system is very simple, but it is interesting to note that it takes fatigue into account, and that ranged combat is possible.

The objective in the game is typical for early CRPGs, loot as much as possible while exploring a dungeon, killing everything that gets in your way.

Akalabeth: World of Doom is also known as *Ultima 0* since it laid the foundation for the *Ultima* series and was the first published game from *Ultima's* father Richard Garriott, also known as Lord British. It was first released in 1979 and later published by California Pacific Computer Company for the Apple II in 1980. Garriott was an avid fan of fantasy role-playing and obsessed with programming already in his teens, and claims to have programmed 27 “small fantasy roleplaying games” during high school. After graduating he began to develop *Akalabeth* as a hobby while working at a computer store.

The game offers a mix of first-person perspective, used in dungeons, and top-down views, used on the surface – both shown in figure 4. This technique was used by countless later games, and was effective for making the game world seem larger. The story of the game is one where Lord British has dispatched an evil wizard from the dungeon, but monsters still lurk there. It is up to the player to clear the dungeons, and help himself to any loot he finds. As the player completes quests for Lord British, he also advances in rank, starting from a lowly peasant and ending up as a knight.

There are two character classes to choose from: the fighter or the magi. The fighter cannot use the magic amulet, a powerful but unpredictable item that would sometimes transform the player into a mighty Lizard Man. The magi, in contrast, cannot fight with rapiers or bows. An interesting fact is that *Akalabeth* featured an adjustable difficulty setting, ranging from 1 to 10. (Barton 2008)

Akalabeth was first distributed at the store where Garriott worked. Packed in Ziploc bags by Garriott himself along with a cover drawn by his mother, a total of fifteen copies were sold before California Pacific contacted him and acquired the rights for distribution. The game ended up selling 30 000 copies. (King & Borland 2003)

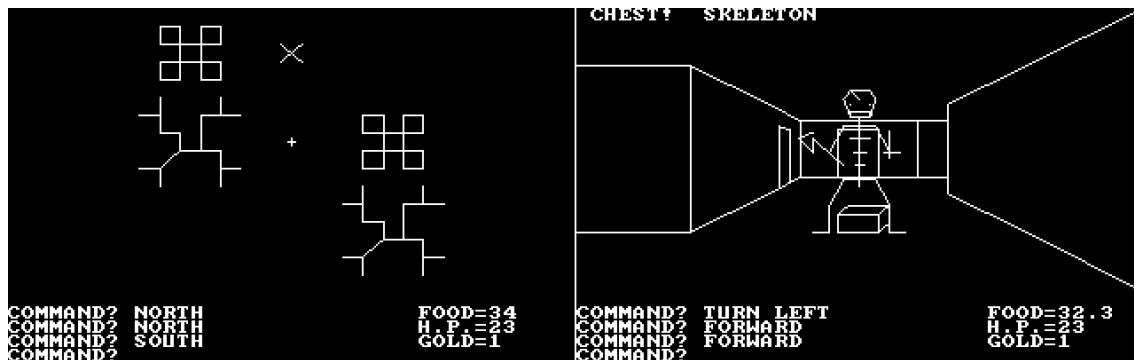


Figure 4. Akalabeth: World of Doom (1979). Left: the top-down view used on the surface. Right: the first-person view used during exploration of dungeons.

It is worth noting that both *Akalabeth* and *Temple of Apshai* included many of the traditional features found in CRPGs, such as changeable equipment, an inventory, hit points and dialogue.

3 THE HISTORY GRAPHICAL ROLE-PLAYING GAMES AND THEIR DEVELOPMENT

In the early 1980s two important series emerged: Richard Garriott went on to continue the *Ultima* series which he had laid the groundwork for with *Akalabeth* and Sir-tech released the first games in the *Wizardry* series. Both series were initially received well and lasted well into the 2000s. While *Ultima* is the series that made the genre a part of the mainstream, *Wizardry* earned a reputation for more challenging hard-core gameplay. Both series also took a different approach to how sequels were made. Garriott made a point of not using the same game-engine in two games, whereas Sir-tech began the practice of reusing the bulk of a game's code in subsequent games. This use of "engine recycling" would later become a standard for sequential CRPGs.

3.1 The birth of Ultima

The first proper *Ultima* game, named *Ultima: The First Age of Darkness*, was developed by Richard Garriott in co-operation with his friend and coworker Ken Arnold in 1981. The monochromatic wireframe scenes featured in *Akalabeth* were used to depict

dungeons, but for *Ultima I* the developers added a tile-based top-down mode that was used to represent the countryside. The format of using tile-based graphics would be the dominant one for years to come, since it allowed the creation of rather large game environments using very little resources on the computer as seen in figure 5. Switching between these modes gave the player the illusion of exploring a world rather than a dungeon. Another notable fact is that the story in *Ultima I* spanned over several time-periods, ranging from the Middle Ages to the Space Age. *Ultima I* even features some simple first-person space flight and combat (Barton 2008).

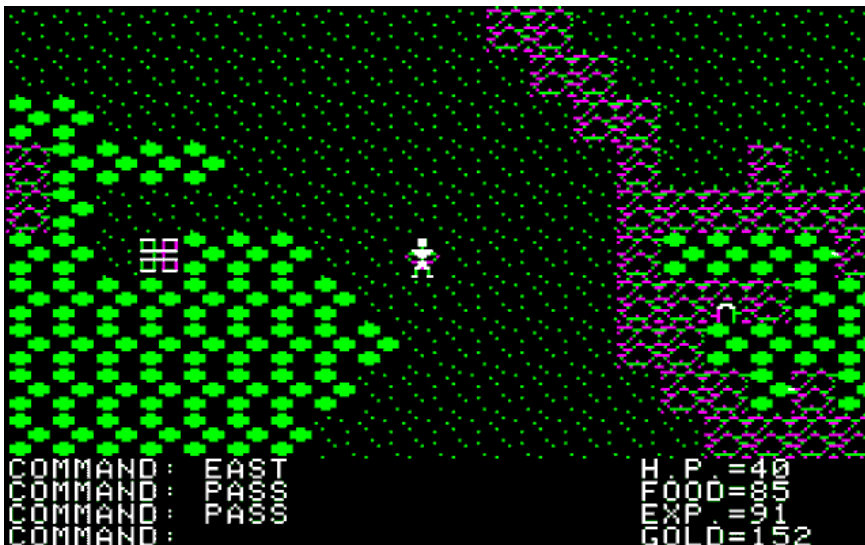


Figure 5. *Ultima I: The First Age of Darkness* (1981) featured tile-based graphics.

Ultima II: The Revenge of the Enchantress soon followed. The second game in the series featured a new faster game engine, the ability to talk to NPCs, and twice the amount of different tiles than the first *Ultima*. These additional tiles made more intricate environments possible.

While the first two *Ultima* games were well received both among critics and gamers, it is *Ultima III: Exodus* that as one of the early great milestones of CRPG cemented Garriott as one of the masters of the genre. The most notable difference in gameplay that sets *Ultima III* apart from the earlier games in the series is that the player was now in control of a party of four characters, instead of controlling just one. This move was inspired by *Wizardry*, the only serious competitor to *Ultima* at the time, which I'll discuss

later. In Shay Addams's *The Official Book of Ultima* (Addams 1990) Garriott is quoted saying "Wizardry had multiple characters, I needed them too." *Ultima III* also took the battle mechanics to the next level, offering a separate view from the one used for exploration featuring a turn-based tactical approach which would become the norm for CRPG combat. Another revolutionary feature in *Ultima III* was its graphics. It was the first CRPG to feature animated characters. The wireframe dungeons from earlier games were replaced by solid 3D objects.

The two first *Ultima* games share a similar in-game story; a sorcerer (*Ultima I*) or sorceress (*Ultima II*) is threatening all of mankind, and the player needs to track down a magical object which is the only thing that can stop the antagonist. In *Ultima III* the sci-fi elements are stripped, and instead of hunting a magical object the player must seek out and kill the evil overlord Exodus, who is the offspring of the antagonists in the first two games.

Ultima III is generally attributed to have established the CRPG genre, and influenced games both in the West and East. A direct impact is easy to see for instance in such later games as *Dragon Warrior* and *Final Fantasy* (see figure 6).



Figure 6. A comparison of *Ultima III: Exodus* (left) and *Final Fantasy* (right) for the NES

Ultima III was a big commercial success. It was ported to most of the popular platforms of the era, and later even to the NES.

It is worth noting that the packaging for *Ultima III: Exodus* featured a horned demon figure that caused fundamental extremists to accuse the game of encouraging Satan worshipping and corrupting the youth in general. This contributed to Garriott developing *Ultima IV* based on a set of in game virtues and generally leading the series towards a more morally aware direction, a shift in emphasis that is discussed further on page 37.

3.2 Early Wizardry

Several other CRPGs than Garriott's *Ultima* series were made during the early 1980s. The most notable of is the *Wizardry* series, which featured a more hard-core approach to game mechanics. The *Wizardry* series starts off with *Wizardry: Proving Grounds of the Mad Overlord*, which features a party of up to six characters. In creating a group rather than a single character, the dynamics of gameplay change. The player has to create a balanced party that has a suitable combination of skills to complete the game. As character creation in *Wizardry I* is a lengthy process, many players were overwhelmed by the fact that a few mistakes in party creation made the game practically impossible to complete.

Wizardry I features an elaborate magic system, comprising of some total 50 spells. The spells can only be cast by entering their names which are printed in the manual. This is one of the early ways of copy-protection in CRPGs, since photo-copying the manual would significantly add to the production cost of illegal copies.

Wizardry I has similar graphics to *Akalabeth*, using wireframe representations of a dungeon in first-person view. The concept of manually mapping the dungeons was emphasized as a central part of the game, and remained a crucial skill in CRPGs until the advent of auto-mapping. When battle ensued the graphics changed into a portrait of the attacking monster (see figure 7), a feature seen in many later games such as *Pool of Radiance* (1988).

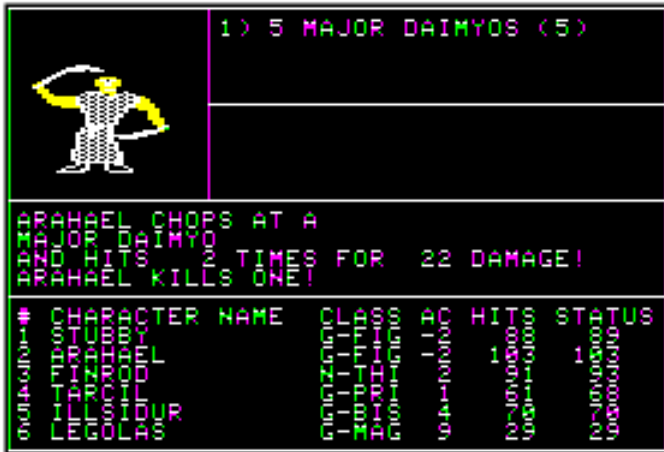


Figure 7. Wizardry: Proving Grounds of the Mad Overlord (1981)

The second two installments in the series were *Wizardry II: The Knight of Diamonds* (1982) and *Wizardry III: Legacy of Llylgamyn* (1983). As stated earlier, Sir-tech took a different approach to making sequels than Garriott: while offering new content, technically the games are almost identical to Proving Grounds. The original idea was that the player had to have completed the first game to start *Wizardry II*, the idea being that the same party of characters would continue the story. The idea didn't prove successful at the time, but it presents an early example of an expansion pack. In *Wizardry III* the player could import characters from the previous game, but they were stripped of their experience and equipment, effectively making sure that every game started with a clean slate.

The fourth game in the series was published as late as 1987, but since it is technically quite similar to the first three games, it warrants a mention here rather than later on. The most notable fact in *Wizardry IV: The Return of Werdna*, in addition of the game being one of the hardest CRPGs in history, is its plot. For the first time the player gets to be the evil wizard out for revenge. Instead of starting at the top level of the dungeon, the player starts imprisoned at the bottom and has to work his way up through the dungeon. An interesting side-note is that Sir-tech used characters it had received from players on disks, either to be repaired or as proof that they had completed the game, as some of the enemies facing the evil wizard.

The first three games in the *Wizardry* series enjoyed moderate success and were eventually ported to the C64, DOS and NES platforms.

3.3 Other early CRPGs

It is clear that *Ultima* and to a lesser grade *Wizardry* dominated the early CRPG scene, but some additional games warrant a mention. (Barton, 2007)

Daniel Lawrence's *Telengard* (Avalon Hill, 1982) was both story- and gameplay-wise quite unremarkable. However it featured some innovative technological solutions like procedurally generated dungeons, later seen in titles such as *Rogue: The Adventure Game* (1980) and *Diablo* (Blizzard, 1997). The procedural generation of dungeons is an early example of procedurally generated content, which is discussed in a broader sense in the glossary part (starting on page 104). For *Telengard* procedural generation meant that the game generated the dungeons algorithmically on-the-fly, resulting in no two games being identical and the dungeons occupying very little of the computer's memory. This technology allowed *Telengard* to offer substantially bigger dungeons to explore than its competitors.

Universe, a game published by Omnitrend in 1983, differs from all the other games discussed so far in the fact that it is set exclusively in a sci-fi environment. Being more of a space simulator than a proper CRPG, its biggest merit is to pave way for the cult classic *Elite* (Acornsoft, 1984) which is considered to have pioneered the open world concept (Sefton, 2007).

Although Acornsoft's *Elite* is not a true CRPG, its impact on game world design warrants a mention. In *Elite* the player takes the role of an inter-galactic trader, accumulating credits through means of e.g. asteroid mining, trade and piracy. *Elite* was one of the first games to offer an open-ended game model, where no ultimate conclusion or end for the game was included. This was made possible by procedural generation of content, which means that the game engine includes algorithms for content generation. In *Elite* the player takes the role of an intergalactic privateer, acquiring wealth by means of trading, completing missions and piracy. It is considered to be the defining game for the

space trading genre of games. In *Elite* each planet's position, prices of commodities, name and local details are calculated on the fly from a fixed list. Technically this means that even though every planet is unique and has fixed properties, no extra memory is needed to store the different characteristics of planets. *Elite* was also one of the first home computer games to use wire-frame 3D with hidden line removal.

Another early game known for its use of procedural generation is *Rogue: The Adventure Game*. In *Rogue* the graphics consist of ASCII characters instead of pixel-based graphics, as shown in figure 8. *Rogue* was a relatively simple game, consisting of almost no story other than to retrieve a magical amulet from the dungeons below and comprising a total of 26 types of monsters. What set *Rogue* apart from other contemporary games, and made it popular despite its simplified graphics was the fact that the dungeons were procedurally generated rather than being random. *Rogue* is considered to have started a subgenre of CRPGs called "roguelikes". Although a very similar albeit simpler game called *Beneath Apple Manor* was released in 1978, and thus predates *Rogue* by some years, the creator claims that neither he nor the developers behind *Rogue* knew of the other game (Schuette 1984).

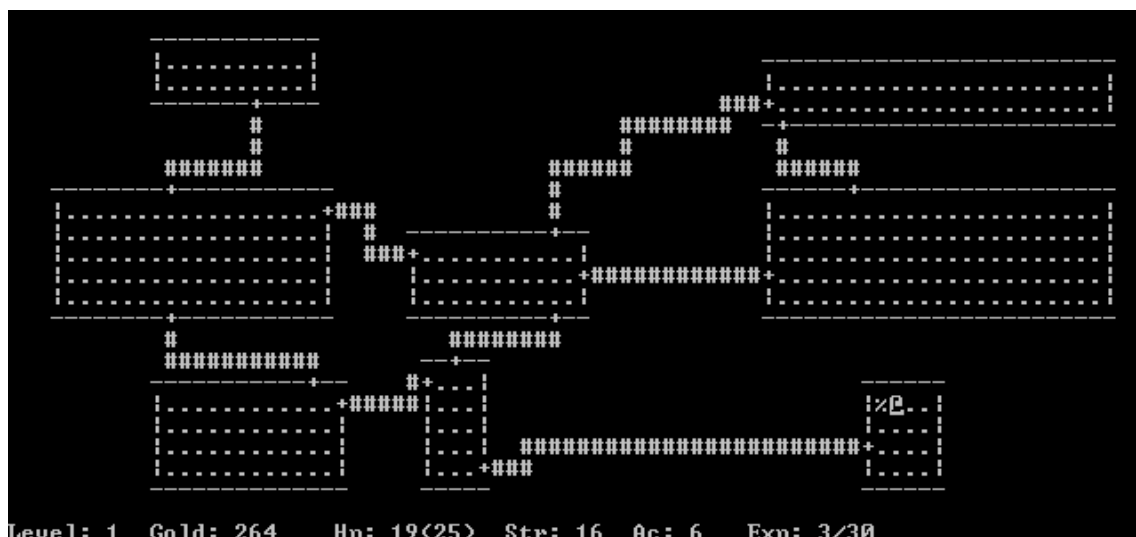


Figure 8. *Rogue* (1980) featured graphics consisting entirely of ASCII characters

Let's examine *Rogue* as an example of procedural level generation. Totally random level generation would result in unbalanced and illogical dungeons, full of dead-ends and

monsters of mismatched strength with the player. *Rogue* is programmed so that although the dungeons generated may seem random, they have a strict underlying logic. The game becomes progressively harder as the player's character becomes stronger, offering suitable monsters to battle and balanced treasures to loot. By these means *Rogue* ensures not only an interesting gaming experience, but also offers immense replay value.

While the procedural level generation of *Rogue* may seem simple by today's standards, truly wonderful situations can emerge as a sum of seemingly simple game mechanics. In *Scribblenauts* (Nintendo, 2009) the aim of the player is to collect hard to reach "starites" in a side-scrolling world. In order to reach these "starites" the player can create objects by scribbling words on the Nintendo DS' touchpad, and then using their attributes to his advantage. In *Scribblenauts* the levels are manually produced, but the solutions for them are procedurally generated by the player getting creative with the game engine. The game recognizes over 22 000 different words, and is very successful at making the player feel he can create anything. As an example the player can create a piece of meat, a stick to tie the meat to, and a Tyrannosaurus Rex to ride on while dangling the meat in front of the dinosaur with the stick. The sheer amount of different solutions to each puzzle is staggering, not to mention what kind of scenarios just fooling around with the game engine enables. In addition to providing a very engaging method of gameplay *Scribblenauts* provides the player with a very real sense of discovery and innovation.

Rogue quickly gained popularity and established a fan-base, a fact reflected in a quote from Dennis Ritchie (Edge 2009), the developer of the programming language C, who said that *Rogue* "wasted more CPU time than anything in history." Fans of the game were responsible for creating countless shareware clones such as Hack and Moria, which eventually became more advanced and more successful than their commercial counterpart. The developers of Blizzards hit game *Diablo* list *Moria* and a later *Moria*-based game *Angband* among the influences for the game (Pitts 2006).

3.4 The Bard's Tale series

While *Ultima* and *Wizardry* established the CRPG genre, Interplay's *The Bard's Tale* series, first released in 1985 by Interplay, was the series that really made the genre a favorite also among the mainstream gamers. *The Bard's Tale* has a similar user interface to that of *Wizardry*, but it is much more polished and slick, as seen in figure 9. It featured revolutionary graphics compared to other contemporary games, which was probably one of the key features behind its success.



Figure 9. *The Bard's Tale* (1987) for Apple II

Instead of concentrating on just one main character *The Bard's Tale*, like *Wizardry*, features a group of adventurers exploring the city of Skara Brae in search of the evil wizard Mangar the Dark. One of the game's innovations is the bard character class, whose special ability is to sing party-boosting songs either in battle or while exploring dungeons. As the name implies, *The Bard's Tale* puts quite an emphasis on the bard class, endearing the class to the player at the every opportunity, and doing a good job at it. One of the best known catchphrases in the advertising for *The Bard's Tale* is "When the going gets tough, the bard goes drinking."

The emphasis put on the bard class can be seen as the first steps towards a trend to have more character centered storylines. Prior to *The Bard's Tale* the different classes featured in CRPGs are centered on battle performance, either as a healer or damage dealer. The bard however seems more like a sort of jovial antihero, clashing with the typical

beefy barbarian, dexterous thief and mysterious wizard archetypes. The bard also symbolizes a less serious approach to the whole fantasy setting, somewhat similarly as J.R.R. Tolkien's hobbits.

The gameplay in *The Bard's Tale* is considerably simpler than many of the other CRPGs of the era. Even a novice can learn the rules in a few sessions.

The Bard's Tale became a best-seller and received high praise from critics and gamers alike. CRASH, a magazine dedicated to the ZX Spectrum home computer, stated that "the Skara Brae environment is so complex and involves so many different factors that it's hard not to get completely enthralled in your quest". Even though it is hard to pinpoint exactly what made *The Bard's Tale* such a success, it has the quality that can be said about every superb game; it is greater than the sum of its parts.

The Bard's Tale was followed by *The Bard's Tale II: The Destiny Knight* (1986), *The Bard's Tale III: The Thief of Fate* (1988) and *The Bard's Tale Construction Set* (1991). *The Bard's Tale II* features essentially just new content and improved gameplay e.g. in the form of more distinctly recognizable important buildings. *The Bard's Tale III* follows along the same lines, but an interesting bit of trivia is that the game was one of the first games to offer auto-mapping. The last game of the series, the *Construction Set*, features an updated version of the original *The Bard's Tale*, and more importantly an editor that enabled players to create their own games based on an enhanced version of The Thief of Fate engine. There are sure to be countless homebrew titles created with the *Construction Set*. However since the Internet didn't yet exist as we know it now, there was no cheap way to distribute homemade games and most DIY modules are lost in history.

The popularity of *The Bard's Tale* series can be illustrated by the fact that eight novels set in the game world were published in the 90s. The series effectively established Interplay as a big player in the game developer scene, and the company would continue on to produce some of the finest games of its era.

3.5 Strategic Simulations Inc.

During the mid-80s a new company entered the growing industry of CRPG development. Strategic Simulations Inc., or SSI for short, would later be known for its cult classic games based on the legendary *Dungeons & Dragons* tabletop role-playing game system. Before acquiring the license for *D&D*, they published such games as *Questron* (1984), *The Wizard's Crown* (1985) and *Phantasie* (1985). Let's take a closer look at *Phantasie*, the most commercially successful game of the three.

Probably the best known pre-D&D game from SSI, *Phantasie*, was a phenomenally successful game that received critical acclaim from many gamers and critics alike. The game features a split-screen user interface, a variation of the interface seen in *Wizardry* and *The Bard's Tale* (see figure 10). The similarity between *Phantasie* and *Wizardry* did not go unnoticed by the critics, but as James V. Trunzo describes in a review of the game for *Compute! Magazine* (Trunzo 1985), “[*Phantasie*] may be the best fantasy role-playing game to come down to the silicon pike since Sir-tech conjured up *Wizardry*”, and states that “at the risk of sounding blasphemous” *Phantasie* is even superior in some aspects.



Figure 10. *Phantasie* (1985) for Commodore 64. A: The world-map view. B: The view in a dungeon. C: Battle with orcs.

Phantasie offers a multitude of different attributes regarding character creation and development. The game has 16 races to choose from, each with its own advantages and disadvantages. The skill system is equally versatile and includes e.g. parry, swim, listen, pick lock and find item, in addition to the usual stats (strength, dexterity, endurance, and so on). *Phantasie* has 6 character classes to choose from, and does away with any armor limitations based on class which were common during its era. The *D&D* rules are very strict concerning what type of armor each class can wear, which results in rather absurd

limitations; no matter how brawny a wizard may be, he cannot wear metal armor or wield e.g. an axe. While the omitting of this limitation may seem like a trivial thing, it was a step towards a more open style of gameplay with less restrictions.

The battle system in *Phantasie* is imitated in numerous later games, especially in the console JRPGs. When battle ensued, the characters were shown in one line on the bottom of the screen and enemies were above them, arranged in ranks, as shown in figure 10. Melee was restricted to the first rank but the wizard can cast a spell on any monster and the thief can also attack a foe in any rank, probably simulating a stealthier style of fighting. The player selects actions for each character and the actions are then initiated in a random order. Different variations of this model prevail in many JRPGs even today. Another similarity with later CRPGs from the East is the brief victory dance performed by the characters provided they win.

Phantasie was followed by *Phantasie II* in 1986 and the final installment of the series, *Phantasie III: The Wrath of Nikademus* in 1987. Importing characters from the previous game into the next was possible. This practice pioneered by *Wizardry*, would become one of the signature features in SSI's legendary "Gold Box" games, which will be discussed in detail later.

3.6 Alternative Reality

Datasoft's *Alternate Reality: The City* and *Alternate Reality: The Dungeon*, released in 1985 and 1987 respectively, were ahead of their time in regard to how the game environment was presented. While the game in general was a fairly traditional first-person adventure, the developers strived towards realism in graphics and sound. The graphics were top notch compared to other games for the Atari 800. For instance the sky lightens and darkens with the hour, and a waterfall seen in the background is visibly flowing. Sound effects were relative to the player's position, meaning that e.g. the sounds from the smith's hammer grew louder as the player approached the smithy and the howling wind picks up intensity around corners etc. The games also featured some conceptual realism that was unheard of at the time; the character gets hungry, thirsty and tired. And in contrast to many contemporary games not all treasures are boons, opening a chest could have dire consequences for the character.

3.7 Ultima IV: Quest of the Avatar

In 1985 Origin, Richard Garriott's own game development company published the next game in the series: *Ultima IV: Quest of the Avatar*. The game was the first game in the "Age of Enlightenment" trilogy. Differing from the previous games in the sense that the main focus of the game was shifted from the "hack and slash"-type battles towards a more ethically-nuanced and story-driven approach, the game emphasized cultural and moral conflict. This shift in focus was caused by the strong reaction to *Ultima III: Exodus* and its cover art, and is described by Matt Barton in his book *Dungeons & Desktops: The History of Computer Role-playing Games* as follows:

The game is almost philosophical, encouraging players to think about the good life and ponder age-old questions of good and evil. The shift was made visible even by the box art: *Quest of the Avatar* sported an image more reminiscent of Jesus than Gandalf. Garriott insisted that the game is "more philosophical than religious," but the many allusions to Christianity and other religions are hard to miss. Origin even included a small metal ankh (an Egyptian holy symbol) in every box!

The covers of the two games are as different as night and day, as can be seen in figure 11.

Barton further explains how Garriott was deeply bothered by the unfounded accusations that he was intentionally corrupting youth. He wanted to show that games could teach moral virtue instead of having negative influences. The general reception of this new philosophical element from contemporary reviewers was very good, and *Quest of the Avatar* was met by praise from players and rave reviews in contemporary magazines.

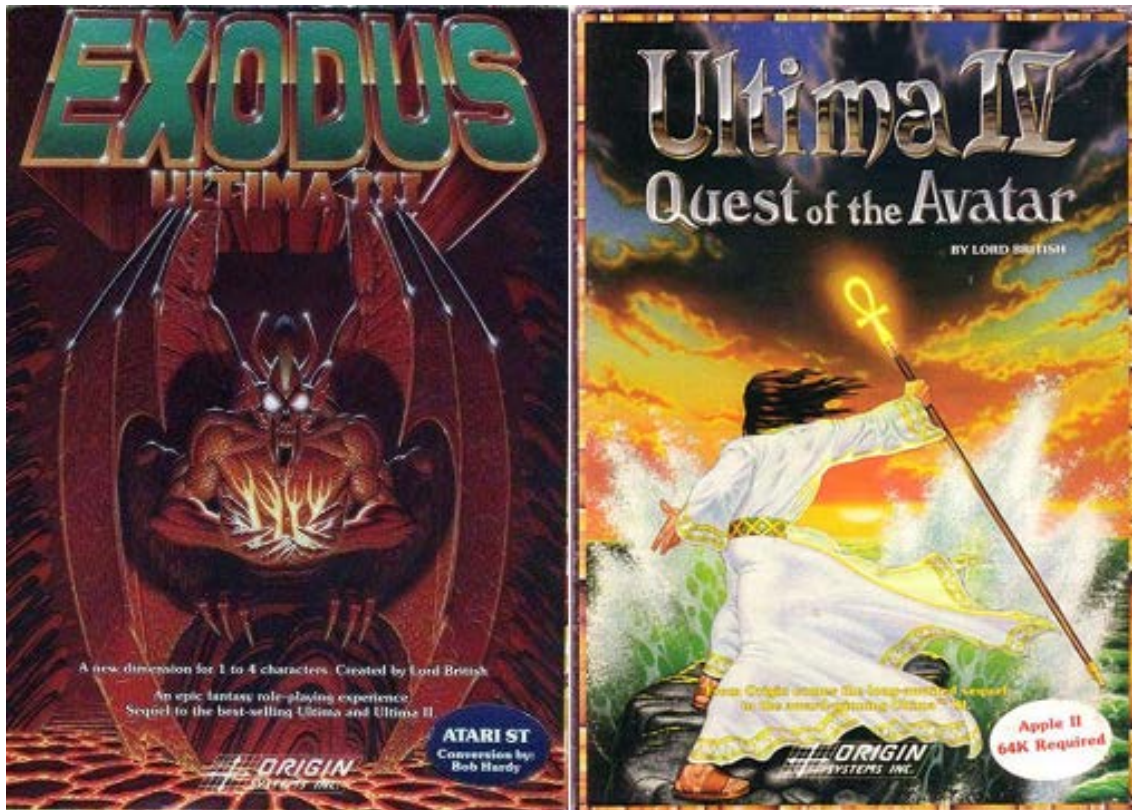


Figure 11. A comparison between the cover art in *Ultima III: Exodus* (1983) and *Ultima IV: Quest of the Avatar* (1985)

The different more philosophical approach pioneered by *Quest of the Avatar* becomes evident as early in the game as the character creation. Instead of the traditional choosing of class and rolling dice for stats, the player is presented with a series of rather difficult ethical questions, designed to test the player’s own moral code. Based on the answers to these questions the character is assigned a class.

Quest of the Avatar is the first *Ultima* game to feature the “Eight Virtues”, which are present in all subsequent installments of *Ultima*. The virtue system is comprised of eight concepts, each of which corresponds to a character class: humility (shepherd), sacrifice (tinker), compassion (bard), justice (druid), valor (fighter), spirituality (ranger), honor (paladin) and honesty (mage). The object of the game is to develop your character in the different virtues, eventually becoming a spiritual leader for the people of Britannia. Certain actions affect the player’s virtue values in different ways. For instance fleeing from an enemy lowers valor, obliging a beggar increases honor and compassion, and meditating at a shrine increases spirituality.

The virtue system in *Quest of the Avatar* marks an important first, even if it was very simple by modern standards. Earlier CRPGs had at most offered a choice between good, neutral and evil as alignment at character creation. The alignment was mostly for show and had little in-game significance, and remained static throughout the game. *Quest of the Avatar* offers no real freedom to choose between playing a good or evil character since virtues are by definition of morally good, but it forced the player to think about the ethical repercussions of his deeds. This was exactly what Garriott had intended the virtue system to do.

Another aspect that separates *Quest of the Avatar* from previous games in the *Ultima* series, and most other contemporary games for that matter, was the importance of dialogue with NPCs. Barton describes the emphasis on dialogue: “In some ways, the game reinforced the now infamous tradition of requiring the player to talk to every single character in the game, exhausting every possible topic.” All in all *Quest of the Avatar* distanced itself from the combat centered style of gameplay that dominated the CRPG landscape in the mid-1980s and signified a big step towards more meaningful content for the whole *Ultima* series.

3.8 Might & Magic

In 1986 the New World Computing released *Might and Magic Book One: The Secret of the Inner Sanctum*. The game marked the beginning of one of the most long-lived game series in CRPG history, along with *Ultima* and *Wizardry*.

The gameplay in *Might and Magic 1* was very similar to that of *The Bard's Tale*; the user interface consisted of a first-person view of the world complemented with separate sections for information about the party and ways to interact with the environment, as shown in figure 12. The game was set in the world of Varn, a quite typical fantasy world, and like the early *Ultima* games also featured some sci-fi elements.

The feature that sets *Might and Magic 1* apart from other CRPGs of the same era is the immense size of the game world. The game was designed so that it gave the player freedom to explore the map however he wants, in a time when most games were linear.

The game established many practices that are still used, such making the character's race, gender and alignment have a concrete effect in gameplay. In earlier games these attributes existed mostly for show, but in *Might and Magic 1* for instance some locations were off-limits for characters of a certain race, gender or alignment.

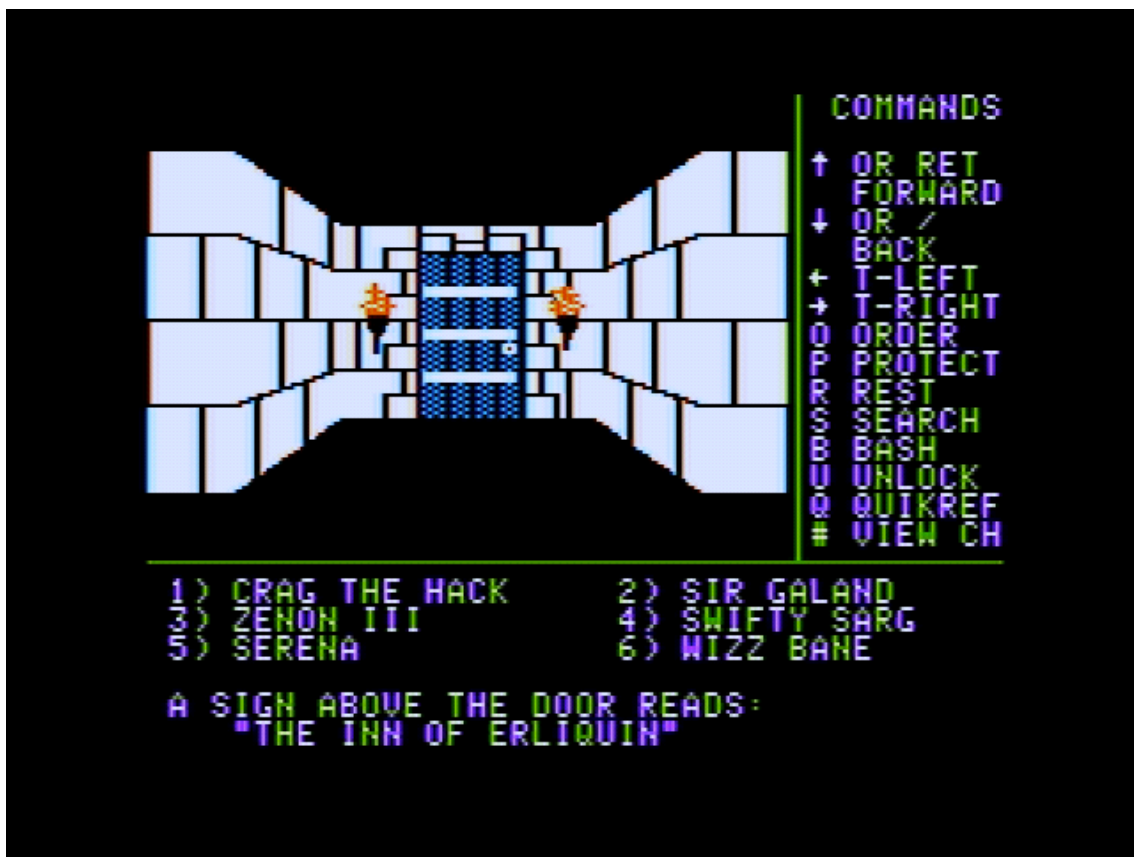


Figure 12. *Might and Magic Book One: The Secret of the Inner Sanctum* (1986) for Apple II

3.9 The “Gold Box” games

In his book *Dungeons & Desktops, the history of computer role-playing games* Matt Barton (2008) writes that most CRPGs made in the 1980s drew their inspiration directly

or at least indirectly from a tabletop RPG called *Dungeons & Dragons (D&D)*. Concepts such as hit points and character stats originate in tabletop RPGs and as *D&D* is regarded as having started the whole industry, its influence on CRPGs cannot be over-emphasized. Taking into account the market dominance *D&D* had in the early days of RPGs, Barton's claim seems logical.

In 1977 the rules of *Dungeons & Dragons* were revised towards a more strict and structured system, which became *Advanced Dungeons & Dragons (AD&D)*. Since early CRPGs concentrated on the more mathematical side of role-playing, i.e. combat and other actions measurable in numbers, the system in *AD&D* was adopted by the CRPG developers as basis for their own rule systems. Barton goes as far as to claim that some of the first CRPGs were indeed aimed for people already familiar with the mechanics of RPGs from tabletop games (p. 63).

Considering the huge influence *AD&D* had, it seems natural that the license to publish official *AD&D* games was highly sought after by nearly every CRPG developer. The fact that the developers of *AD&D*, TSR Inc., awarded the license to SSI was due to SSI's history as an established developer and publisher of computer based war-games. Another contributing factor is that SSI had also developed several commercially successful CRPGs by the time they emerged victorious from struggle for the *AD&D* license, such as *Phantasie* (see page 35).

The resulting game series would unofficially be known as "the Gold Box games", adopting the name of the underlying game engine, the Gold Box Engine – which in term took its name from the gold colored boxes the games were sold in. All of the games in the series were raging commercial successes, gaining praise from players, magazines and critics. Barton claims that the only games that could rival the Gold Box series in long-lasting fame and popularity are *Ultima IV*, and possibly *The Bard's Tale*. I would add the *Final Fantasy* series as a whole to the group, probably not mentioned by Barton since his book concentrates western CRPGs. Barton's own reaction to *Pool of Radiance*, the first game in the Gold Box series, is a good example of the kind of emotional reaction the Gold Box games caused among the public in general:

I distinctly remember the day I first laid hands on *Pool of Radiance*. Although I had played *The Bard's Tale* and a few other CRPGs, it wasn't until I planted my foot on the corpse of the evil dragon Tyranthraxus that I knew what it meant to love a computer game. Never before had a game held me so deeply in its power. My humble Commodore 64 had become a portal to another world, one so compelling that I happily endured hunger and exhaustion rather than look away! After *Pool of Radiance*, I knew I would play computer role-playing games until the day I died.

3.9.1 Pool of Radiance

The eagerly awaited *Pool of Radiance* was released in 1988 for the Commodore 64, and became an instant best-seller. As *AD&D* dominated the tabletop RPG market, being able to display the words “Official Advanced Dungeons & Dragons Computer Product” on the box was no small boon for marketing the game. The game's huge success can however not be attributed solely to the fact that it was the first officially licensed AD&D computer game.

In developing the Gold Box Engine SSI used the best elements from its own and rivals CRPGs, resulting in one of the best and most long-lived game engines in CRPG history. Combining elements from games such as *The Bard's Tale* and *The Wizard's Crown*, and earlier CRPG made by SSI, the interface in Golden Box games is divided into two parts, exploration and combat, as shown in figure 13. The exploration view is close to the one in *The Bard's Tale*, featuring a rather big window showing a still image of the direction the party is facing. The rest of the screen is reserved for displaying information about the characters and surrounding. The combat view is divided into two sections: a top-down tactical view where the player can see the positions of his own party and the enemy, and a section reserved for textual information.



Figure 13. *Pool of Radiance* (1988) for Commodore 64. Left: exploration view. Right: combat view.

Pool of Radiance excels in presenting a coherent and polished game world that seems like a real place, just like *The Bard's Tale*. A big part of the perceived realism is probably due to the first-person perspective, presented on the top-left window of the screen as shown in figure 13, and the amount of work put into the surroundings the view from that window conveys. Most games featuring similar graphics had maybe 15 different wall-graphics but *Pool of Radiance* boasted a whopping 80 different ones. This was instrumental in making the game environments have a unique feel to them, further adding to the realism.

If the underlying game is dull and repetitive, however, no amount of work on the interface will make it fun to play. The key strength in *Pool of Radiance* and indeed the whole Golden Box series lies in the game world. The *Forgotten Realms* game world, in which all of the games are set, was also used as the setting for many of TSR's own published adventures and game campaigns for the *AD&D* tabletop RPG. As such the game world was very well developed, and continued to grow all the time. Indeed there are still novels published today set in that very same world. The *Forgotten Realms* world works phenomenally well as the backdrop for CRPGs, and succeeds in adding a layer of depth to the story in *Pool of Radiance* and its sequels.

In *Pool of Radiance* the objective is to rebuild the once magnificent city of Phlan that now lies in ruins. Based in New Phlan, the renovated part of a city otherwise in ruins, the player must complete quests such as clearing areas of monsters and recovering artifacts from the ruins. This makes the characters not only a motley band of adventurers or mercenaries, but in a sense they are also archaeologists, giving them a tangible purpose and focus that many earlier games lacked.

The combat system in *Pool of Radiance* is a double-edged sword. It is very balanced and realistic, stemming from the fact that the system used is the one from *AD&D* which has been well tested during countless tabletop RPG sessions. Like in *Phantasie*, the player decides each round what actions his characters will take, but instead of waiting for all the actions to be issued until acting, the character takes action immediately after being issued the command. The *AD&D* combat system is built so that the amount of misses in combat is higher than the amount of actual hits. While giving the player lots

of tactical challenges, this sort of realism in combat tends to dramatically prolong the fights. A battle with a large group of monsters could easily last an hour. Compared to combat in modern games, putting that much time into a single fight seems impractical and downright ridiculous. Very long fights could result in the player rushing through them, with disastrous results for the party. The game offers a staggering amount of different options for combat strategies for each class, and expects the player to make the best of the use of these.

The game's approach towards combat is a great example of the difference between modern and older CRPGs. Being more true to their ancestors on the tabletop side, older CRPGs tend to disregard things such as player frustration and keeping up some sort of flow in the narrative, or even the whole game. Today no CRPG where combat with a random encounter might last for an hour would be published. The attention span of modern players is much too short for that.

Luckily battles in *Pool of Radiance* don't need to be to the death, as many enemies surrender if they feel hopelessly overpowered. This sort of intelligence in monsters was seldom seen in earlier CRPGs. Combat could be avoided entirely by successfully talking the foe out of fighting you. In order to achieve this, the player is a choice of five tones in which to parley: haughty, sly, nice, meek and abusive. Different opponents required different ways of approaching them, and some previous knowledge of cultures in the *Forgotten Realms* world could come in handy; for instance a bugbear would probably not leave you alone if asked nicely.

An aspect in *Pool of Radiance* that deserves a special mention is the ability to customize the portraits and icons of the characters in the player's party. Although the limited customizing system seems simple compared to modern games, it was revolutionary in an age where most CRPGs didn't offer character portraits at all and icons, where present, were static and standardized. Customizing the look of one's character has become a central aspect in later games with richer graphics.

Another notable feature was a printed journal included with the game. The journal contained maps and short text passages that were meant to be read in certain points of the

game, with the purpose of adding depth to the game where the limited graphics couldn't do the environment justice. These brief passages are reminiscent of the way a real dungeon master describes the players' surroundings in tabletop RPGs. *Pool of Radiance* was not the first game to utilize this sort of setup, as it is seen earlier in games such as *Dunjonquest: The Birth of Apshai*.

Pool of Radiance was an undisputed success, a fact which is clearly demonstrated by TSR commissioning a novel and developing a campaign for the tabletop version of *AD&D* based on the game. SSI effectively raised the bar for commercial CRPG development, making the industry a serious business with specialized division of labor. One developer was no longer enough to provide a game with the complexity and quality expected by the public.

3.9.2 Successive games in the Gold Box series

After the success of *Pool of Radiance*, SSI hurried to get a sequel published as soon as possible. This time the game was based on an existing book, *Curse of the Azure Bonds* by Kate Novak and Jeff Grubb. The game bore the same name and was released a year after *Pool of Radiance*, in 1989. The game engine was virtually identical to that of *Pool of Radiance*, with some aspects streamlined to make for more fluent gameplay. A key feature made possible by the recycling of the game engine is the option to import your characters from *Pool of Radiance* into *Curse of the Azure Bonds*. The character portraits were however removed in order to make more room for other game content and to shorten the time needed to load the character status screen. The use of the same party the player completed the previous game with enables a much more involved approach to the second game. Since the player had already spent countless hours on the development of his characters, he was already emotionally engaged to the party when *Curse of the Azure Bonds* began. Although *Curse of the Azure Bonds* was criticized for the focus on combat, the great story makes up for some of the repetitiveness forced upon the player in the form of battles.

By the time SSI released *Secret of the Silver Blades*, they had launched some spin-off games featuring variations of the Golden Box engine. The game added features seen in some of the spin-offs to the official Golden Box engine, such as a difficulty selector seen in *Champions of Krynn*, a game released by SSI a few months prior to *Secret of the Silver Blades*. The difficulty selector allows players to reduce the power of their enemies, being especially useful for getting through especially challenging passages of the game, the trade-off being fewer experience points for easier battles. This difficulty selector has become a norm in modern games, which usually offer the player a choice of difficulty at the start of a game. Using a modified difficulty setting is perhaps needed more today than in the days of the Golden Box games since games are played by people of a wider spectrum of age and previous gaming experience. Like the previous Golden Box games, *Secret of the Silver Blades* received rave reviews in contemporary gaming magazines. Russ Ceccola went as far in his review of the game for *Compute!* magazine (Ceccola, 1990) to argue that players might want to record their gaming “to show as background video for parties and gatherings.”

The Golden Box series eventually consisted of five titles, *Pool of Radiance*, *Curse of the Azure Bonds*, *Secret of the Silver Blades*, *Pools of Darkness* and *Forgotten Realms: Unlimited Adventures*. *Pools of Darkness*, released in 1991, offers new content and improved graphics and sounds. The gameplay-related aspects remain the same as in earlier installments of the series, which are already covered in the section above.

Unlimited Adventures consists of a mini-adventure called *The Heirs to Skull Crag* and the biggest differing factor in regard to the previous games in the series: a game editor. The editor allows the user to create new adventures of his own, which anyone who owned the game could play. Although the editor was in many ways limited, a strong community arose around the creation of new adventure modules. The community is still thriving today, and many new modules are released each year (UA File Archive). Both *Unlimited Adventures* and *The Bard's Tale Construction Set* discussed earlier can be compared to the role of the dungeon master in traditional RPGs. Both are early examples of encouraging user-generated content, and serve to illustrate the desire of some players not only to play, but to understand the underlying mechanics and create their

own scenarios. However until the Internet became popular, the games were doomed to be forgotten due to the limited channels of distribution.

The Gold Box series played a vital role in shaping the future of CRPGs. The series followed the example of Sir-tech and *Wizardry*, using the same game engine with minor changes for successive games. While it is somewhat justified to criticize this practice of “engine recycling” as being repetitive, it should also be seen as a way to ensure that fans of the previous games are comfortable with the new ones, and an essential strategy in driving down development cost and effort. Of course this practice cannot go on forever – at some point players will start to demand more from a game than simply new content. The history of games is however littered with examples of forced innovation, where sequels couldn’t live up to the expectations made by previous games. The old proverb “don’t fix what isn’t broken” applies as well to CRPG development as to any other field.

The surprising thing about the Golden Box engine is its longevity and versatility, eventually being used as the basis for one of the most successful early MMORPGs, *Neverwinter Nights*.

3.10 The “Gold Box” goes online - Neverwinter Nights

Neverwinter Nights was an early online CRPG developed by Beyond Software and published by SSI in 1991. While not a direct Gold Box game in itself, it was based on the same Gold Box game engine used by SSI in their highly successful series.

Neverwinter Nights was way ahead of its time in offering real-time online multi-player gameplay. It quickly became one of the key attractions for America Online, the network on which it was played and is likely the first MMORPG, or massively multi-player online role-playing game. The main appeal in *Neverwinter Nights* as in other online games is the social interaction between players, and as such it falls outside the scope of this study. It is however worth noting that the game saw the birth of guilds, loose groups of players united for their common in-game good. Guilds would become an essential part

of later online games, such as *Dark Age of Camelot* (Mythic Entertainment 2001) and most notably *World of Warcraft* (Blizzard 2004).

3.11 The advent of mini-games – Hillsfar

One other 1980's game from SSI warrants a mention here, namely the curious mix of RPG elements and mini-games that is *Hillsfar*. Published in 1989, the game is of close relation to the Gold Box games and even allows the importing of a character from both *Pool of Radiance* and *Curse of the Azure Bonds*. Differing from other SSI games set in the *Forgotten Realms* game world, in *Hillsfar* the player controls one character instead of a party. The graphical user interface is also different, featuring the familiar first-person view of the Gold Box games on the top left, but replacing the right side of the screen with a big top-down view of the city of Hillsfar, where the game takes place, as shown in figure 14.

Hillsfar is one of the first CRPGs that feature mini-games as an integral part of gameplay. Mini-games are, as the name suggests, small games within the game proper used to simulate different tasks. In *Hillsfar* different mini-games are featured for exploring buildings or mazes, for an archery range, for lock-picking, for travelling by horse and for fighting in the arena. Each of these mini-games has their own screen setup and control scheme (see figure 14), differing from the main screen used.



Figure 14. Hillsfar (1989) for Commodore 64. A: The main user interface. B: The mini-game for exploring dungeon. C: The mini-game for picking locks. D: The mini-game for the arena. E: The mini-game for travelling by horse.

The mini-game solution is used in countless later games for different tasks. A typical task simulated with a mini-game is picking locks (or hacking passwords in sci-fi games) - for instance both *Star Wars: Knights of the Old Republic* series and *Mass Effect* series use this feature.

The gameplay in *Hillsfar* is significantly less linear than in the other Gold Box games, probably due to the game lacking a single story or main quest. Instead the character is

given quests from his guild. In this sense *Hillsfar* is actually an open-ended game, one of the first such CRPGs.

While some critics praised the mini-games others condemned the whole game because of them. It is clear that many of the mini-games presented were not thought through. An example being the fact that mages and clerics couldn't use their main weapon, spells, in the arena. Many of the mini-games also were quite repetitive. Most criticized was the horse riding mini-game, as it seems uncalled for to force the player to duck arrows and jump bales of hay every time they travelled by horse.

3.12 Ultima VII: The Black Gate

Although all of the *Ultima* games are prime examples of excellent game design, *Ultima V* and *Ultima VI* didn't offer any revolutionary changes in gameplay. This is certainly not true about the seventh installment in the series. For many critics and gamers *Ultima VII: The Black Gate*, released in 1992, is the definitive *Ultima* game. Richard Garriott himself considers the game the best made *Ultima*, and describes the game in an article for Gamespot.com in the following way:

“Ultima VII represented the pinnacle of virtual world simulation where I really felt I had done the best job of interactive storytelling and of world detailing to create a play space and a play environment and reasons to be there. I felt that was the most masterfully executed of the Ultima series, so to speak.”

While *Ultima VII* is equipped with fairly good graphics, the advances in gameplay were what make it really stand out among other games of the age. The game allowed the player to directly control only one character. The rest of the party could be given different attack modes, such as “attack weakest”, but otherwise acted on their own.

One of the key features in *Ultima VII* was that it was fully open-ended and featured an incredibly rich and interactive world, with very few guard rails for the player. Many games at the time offered an open world in which the player was free to roam and explore, but none had the same level of detail and care put into the design of the game world. The unprecedented richness in interactivity of the game environment is described in a review of the game at Mobygames.com, by the user known as Pentatonic Duck:

You can do anything in this game. You can light candles, play harpsichords, break doors, rob banks, bake bread, make clothes, navigate ships, sleep with whores, and collect pumpkins. Note: I mentioned only the activities you can do - none of those are required from you to do in order to finish the game. Everything can be interacted with, and I do mean everything. You can go into a house, get a pair of boots and wear them, read all the books on the bookshelf, break a barrel in the kitchen, take some mutton from a crate and eat it, then take a goose quill from the table in the living room, put it on the owner's bed, wake him up, and sleep on the bed instead of him. I'm bringing silly examples here, but I just don't know how else to describe the amazing interactivity this game offers.

Of course more relevant things to do are also offered, such as blacksmithing and bakery. The player is in other words not forced to follow the main quest of the game, and is offered a plethora of other goals to pursue. The level of detail described above is also extended to the design of NPCs. They walk about and engage in their daily activities, and finally go to bed after a hard day's work. This naturally meant that the game also simulated different times of day (see figure 15). The high level of interactivity adds a sense of realism and of "everything being possible", and would later be a key aspect of Bethesda's *Elder Scrolls* series.

Another very well executed aspect that was unique for *Ultima VII* was how the antagonist was presented. From the beginning of the game the player is harassed by "The Guardian", a floating red head shown in figure 15. The Guardian keeps on mocking the player throughout the game, effectively creating a sense of being watched. By constantly reminding the player of its existence, and often doing this in a personally affronting way, the Guardian really became the player's nemesis instead of the shallow pretext for more combat offered by the main enemies in most CRPGs.

Ultima VII was also ahead of its time in user interface design. The player was presented with a full screen view of the game world, free of icons or obstructing menus. The menus, such as inventory and stats, were superimposed on the background and had to be separately activated, as shown in figure 15.

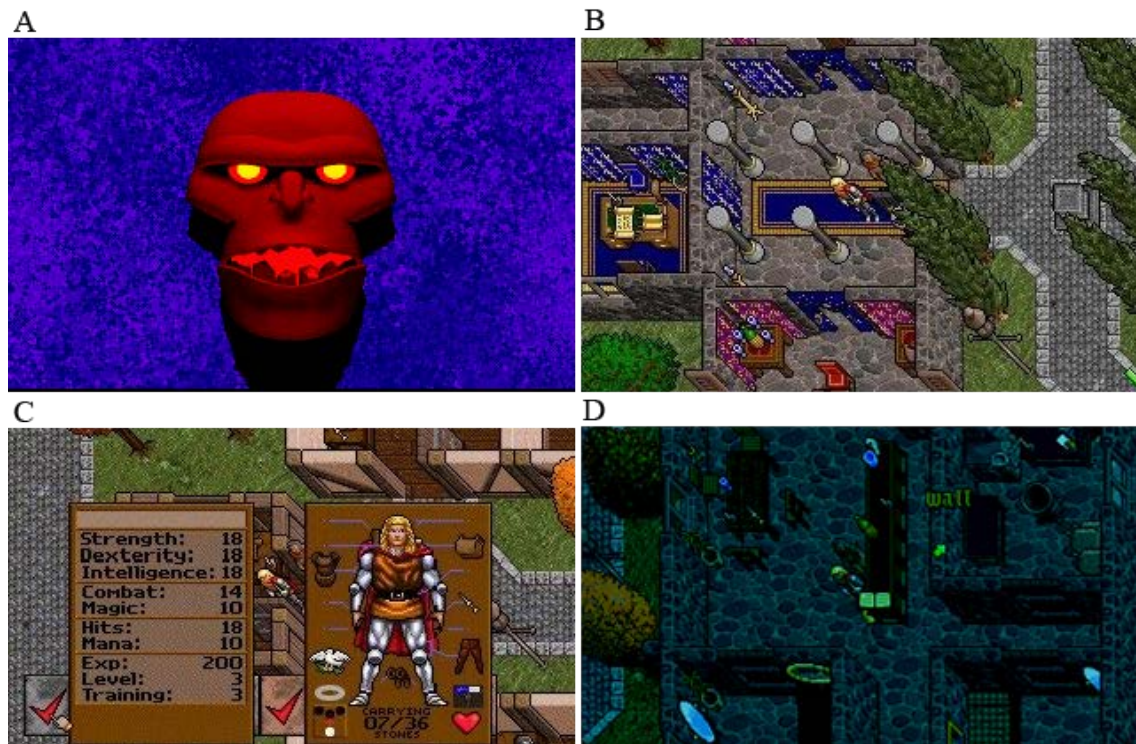


Figure 15. *Ultima VII: The Black Gate* (1992). A: *The Guardian*. B: *The main view of the game*. C: *The stat screen*. D: *Night-time*.

The other two big game franchises, *Wizardry* and *Might and Magic*, saw new installments with updated graphics and sound. Both game series paled in comparison to what *Ultima VII* had to offer, but New World Computing introduced some notable innovations in *Might and Magic III: The Isles of Terra*.

While SSI dropped character portraits after the *Pool of Radiance*, in *Might and Magic III* the developers chose to feature them along the bottom of the screen in the game interface, as shown in figure 15. This in itself is not a remarkable innovation, but the portraits were not static images. Instead they reacted to what happened in the game to reflect the mood and status of the character they portrayed. One of the limits of a first-person view is the inability to see your own party. The developers at New World computing circumvented this problem as the player could see how his party was doing by simply looking at the lower part of the screen.

Might and Magic III introduced other visual cues as well. Hit points were substituted with “life stones” under each character, which changed color to indicate health: green for good, yellow for wounded and red for critical. This method is widely in use even in modern games, and was quickly adapted by competing developers at the time. Other

visual clues were e.g. the gargoyles on each side of the main world view. Provided that a member of the player's party had the Detect Secret Passages skill, one of the gargoyles would signal whenever the party passed a hidden door.

3.13 Quest for Glory

Having earned a reputation for its classic adventure games such as the *Leisure Suit Larry* and *Space Quest* series, Sierra was well known in the late 1980s. These adventure games, however, suffered from a number of playability issues. The games featured puzzles that could best the most determined of players, often having counterintuitive solutions and thus slowing gameplay down to a full stop. If the player couldn't figure out the solution, the only option was to cheat or give up playing the game. The games were also completely linear which amounted to zero replay value. Once the player knew the answers to the puzzles in the game, there was no incentive to play the game again. To tackle these problems, a sort of middle ground between CRPGs and adventure games was developed.

The Quest for Glory series debuted with *Hero's Quest: So You Want to be a Hero*, which was quickly renamed *Quest for Glory: So You Want to be a Hero* due to a board game already having the title *Hero's Quest*. The game retains much of the look and feel of Sierra's adventure games. In contrast to these games, *Quest for Glory* offers a choice of character class, which actually dictates more of the game than it does in most CRPGs. In addition to differing combat strategies the game offers different ways for different classes to solve puzzles. For instance a fighter or thief has to climb up a tree to fetch a bird's nest, while a magic-user must cast a spell to achieve the same result. Since gameplay changes significantly depending on what class is chosen at the start, the player can play the game again with another character class making the replay value of the game even higher than most CRPGs.

The method of gameplay originally implemented by *Quest for Glory* was movement with the arrow keys and text-parser for performing actions, where the user could type

simple commands like climb tree. The text-parser was replaced by an icon-based interface in a re-release of the game, to the dismay of many of the series original fans.

In contrast to other CRPGs, the general tone in *Quest for Glory* is often satirical. A legacy of earlier Sierra adventure games, the gameplay took on even downright ridiculous aspects. For instance thieves could try to practice their pick-lock skill by using the command “pick nose”. This kind of wordplay and comic relief continues throughout the whole series.

The Quest for Glory series had several sequels, some allowing the player to import his character from an earlier adventure but offering little in the way of developing gameplay. It is worth noting, however, that the last game in the series, *The Quest for Glory V: Dragon Fire* – published by Sierra as late as 1998, features more CRPG elements such as a wider variety of equipment and magical items.

3.14 Myst

Cyan’s *Myst*, released in 1993, breaks many gaming conventions and can be seen as one of the most influential adventure games ever made. It was so successful that it was instrumental in popularizing the then novel format of CD-ROMs. The use of CD-ROM technology changed the way computer games were made, as they offered immensely bigger storage capacity than earlier formats, thus allowing much more content in games. *Myst* was also by far the best looking game of its time with its pre-rendered 3D surroundings. In *Vintage Games* (Loguidice, Barton 2009), the pull of the game is described as follows:

Beyond these technological factors, *Myst* also ushered in a new type of graphical adventure game, one that deviated sharply from past adventure game hits such as Infocom’s *Zork* [...] Unlike these games, which emphasized story, character, and humour, *Myst* is primarily about ambience, exploration, and complex logic puzzles. It is timeless and surreal, comparable to a quiet day spent wandering about a Zen rock garden.

Although the game looked amazing, the underlying engine is primitive and reminiscent of an interactive slideshow, reducing the game elements to a point-and-click style inter-

action. This seems to be intentional, however, as the interface is deliberately minimal to enable easy control by the player.

While *Myst* features quite realistic 3D graphics and is presented in a first-person perspective (see figure 16), the game does not offer any fluid animation. Instead the player interacts with the environment by clicking on various "hot spots" on the screen. He cannot move to other than pre-determined spots. Depending on what the player clicks, he can either move to a new view (for instance clicking on a door might take the player to a fixed spot on the other side of the door) or initiate some action (clicking on a lever might raise or lower it).

In *Myst*, the player assumes the role of the Stranger, who is sucked into a book about a mysterious deserted island in the beginning of the game. He soon finds out about an underlying story involving beings who create whole worlds by the means of a magic script. The central story of the game involves two brothers and their father, all trapped in books, who the player must attempt to free.

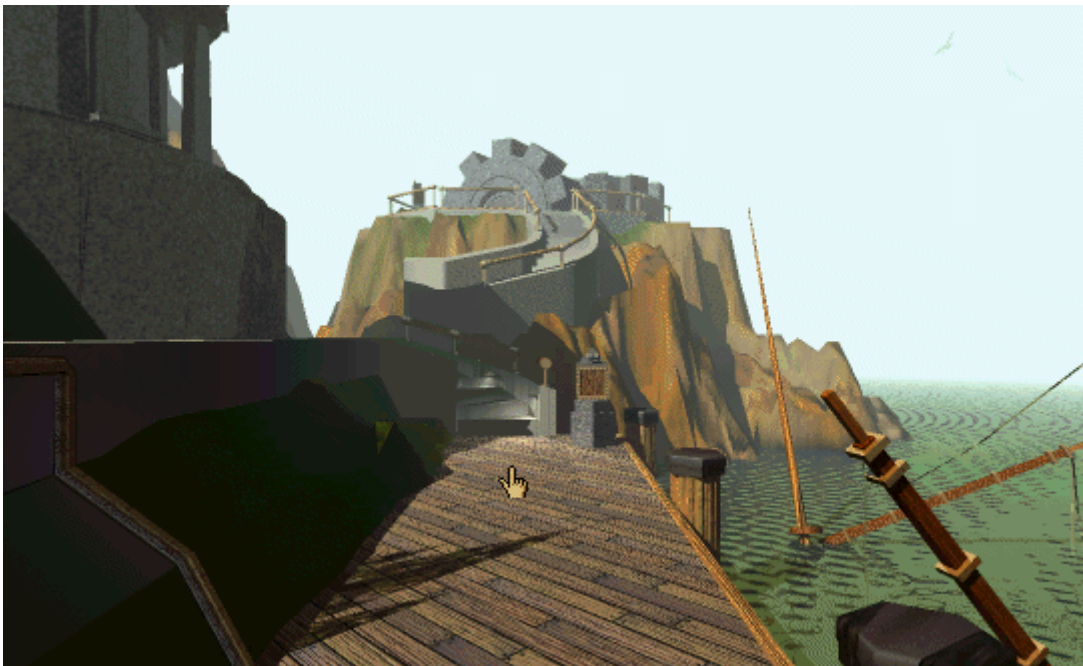


Figure 16. Myst (1997). "This Myst opening shot, one of the most canonical in all of computer gaming, gives the player a good idea of what the game will be about: mysterious machinery in surreal settings.. (Loguidice, Barton 2009)

Myst differs from other contemporary adventure games not just by presenting the world in a first-person perspective, but by not offering any clear objectives for the game. It may indeed be not at all clear what the player is supposed to do when beginning the game. Another quite unique fact is that *Myst* doesn't feature an inventory, meaning that all the elements needed to solve a puzzle are already in place – it is up to the player to figure out how to utilize these elements successfully.

Myst was an enormous financial success, remaining the best-selling game in history until *The Sims* (Maxis) claimed that position in 2000. Bearing that in mind it is hardly surprising that five sequels were eventually made, the most significant one of these being *Riven*, the game that followed *Myst* in 1997. While generally received well, none of the sequels could match the success of the first game in the series.

3.15 The rise of real-time 3D games

3.15.1 Dungeon Master

In the late 1980s most CRPGs were built on turn-based engines. If the player's character or party didn't move, neither did anything else in the game environment. Some games generated random encounters even if the player was away from the keyboard, most notably *The Bard's Tale*. In a truly real-time world, though, monsters and NPCs had a life completely autonomous of the player's actions. The biggest hurdle to overcome when developing games that featured a real-time environment was the limits in memory and processing power of personal computers in the late-1980s. Although real-time 3D was used as early as 1984 in *Elite*, it had the trade-off of severely limiting the amount of colors and textures used. As more powerful systems such as the Atari ST and Commodore Amiga were becoming more commonplace, developers hurried to take advantage of the capabilities of these new systems.

The first game to use real-time 3D was *Dungeon Master*, published in 1987 by FTL Games. First released on the Atari ST, it quickly gained popularity and today remains the most commercially successful game on the platform. It was ported to the Commodore Amiga in 1988 and was equally successful on that platform. (Petersen 1993)

Dungeon Master has a storyline written by a professional novelist and was praised for its innovative use of sound, however the most interesting aspect in *Dungeon Master* in regard to the purposes of this study is the first-person view 3D and the real-time gameplay. The user featured consists of a first-person view of the direction the party is currently facing (see figure 17). This view is refreshed in real-time, much like in the later first-person shooter *Doom* (id Software 1993). The rest of the screen has a traditional layout of CRPGs of the time, presenting the player with information about the party.

As the game featured a real-time environment, the gameplay in combat situations saw a dramatic change. In turn-based games the player has time to think about his next move, a feature which is one of the key aspects of many games. With the advent of real-time combat the player is suddenly thrust into the midst of a frantic battle, having to decide quickly what actions to take. This shifted the emphasis from tactical and strategic cunning to rapid reflexes and knowledge of the game system. In a way this shift can be compared to the Active Time Battle system in JRPGs, a hybrid combat system which blends together elements of real-time and turn-based battle later developed by Square (see chapter 4.2.2 on page 95 for a full description of the Active Time Battle-system).

The term real-time 3D should not be confused with real-time rendered fluid 3D, which is used for the first time in *Ultima Underworld: The Stygian Abyss* in 1992 and involves a true 3D environment. The real-time 3D featured in *Dungeon Master* and later similar games has pre-made backgrounds and characters, seen from a first-person 3D view. The player navigates the game world in steps, as if he was on a grid advancing one square at a time and is constrained to 90° turns. The real-time term used here refers to the game, not to the 3D rendering. In other words the game is active even if the player does not, instead of actions taking place in turns and NPCs moving only when the player moves.

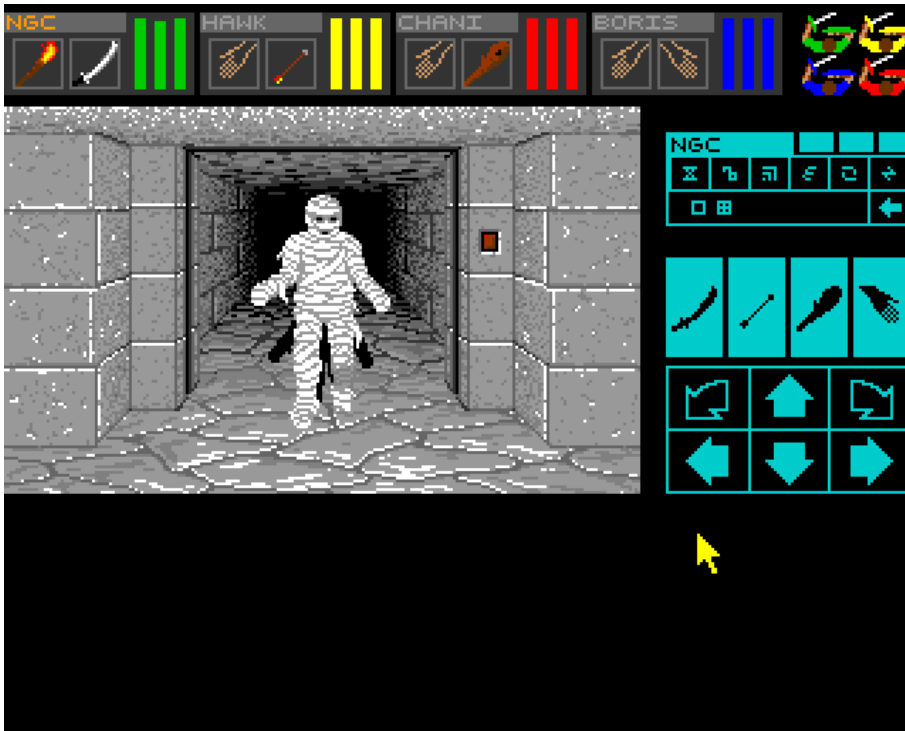


Figure 17. *Dungeon Master* (1987), the first 3D CRPG presented in real-time

Another innovation in *Dungeon Master* was the use of a dynamic magic system. Instead of casting predetermined spells, magic is done by chaining together different sequences of runes. As the manual didn't include any correct sequences it was up to the player to find new spells in-game, experiment by trial-and-error or consult a hint book.

Dungeon Master effectively changed the way in which CRPGs were developed as later games in the genre were almost exclusively presented in real-time. It won multiple awards for best game and best role-playing game in the years following its release, and spawned countless clones. Edwin Robert Stahl goes as far as to say that "It was the most advanced RPG experience available and a true immersive milestone. [...] What made *Dungeon Master* so important in the history of immersive games was its combination of a first-person 3D engine, point-and-click interface, and enveloping sound" in his paper *Exploring the Virtual Frontier: The Evolution of Narrative Form in Immersive Video Games* (2002).

FTL published a sequel two years later, *Dungeon Master: Chaos Strikes Back*. It uses the same engine with minor improvements and thus offers nothing new gameplay-wise.

A third installment appeared in 1994, titled *Dungeon Master II: The Legend of Skullkeep*, but it failed to present the series with anything new and to gain any significant commercial success.

3.15.2 SSI goes 3D

Considering the look and feel of the Gold Box games, it is no wonder that SSI was quick to jump on the 3D bandwagon. Their 1990 release *Eye of the Beholder* started what is known as the “Black Box” series, named after the distinctive packaging otherwise closely resembling the Gold Box games, but presented in black. Developed by Westwood Associates the game is set in the *Forgotten Realms*, the same popular universe made known to players by *Pool of Radiance* and its sequels. The game features a game engine essentially identical to the Gold Box engine, but presented in real-time and with updated graphics and sounds (see figure 18).



Figure 18. *Eye of the Beholder* (1990)

The Black Box series includes two other titles, *The Legend of Darkmoon* and *Assault on Myth Drannor*, released in 1991 and 1993. These sequels made virtually no adjustments to the game engine with the exception of offering the player several save slots so he wasn't forced to overwrite his previously saved game when saving.

Another interesting game published by SSI at the time was *Dungeon Hack*, released in 1993. It is essentially a real-time 3D adaptation of a roguelike game. Being a straight forward hack 'n slash game, *Dungeon Hack* shared many qualities with its ancestors. Instead of controlling a party, the player explored the dungeons using a single character, and even the plot was similar to the dungeon crawls of old: the player is to descend into a dungeon to retrieve a magical orb.

3.15.3 Sir-tech goes 3D

Sir-tech's contribution to the post-*Dungeon Master* craze was released in 1993 under the name of *Realms of Arkania: Blade of Destiny*. Based on a popular German tabletop RPG *Das Schwarze Auge* (or *The Dark Eye* in English) the game featured an innovative system of seven negative (supersitition, acrophobia, claustrophobia etc.) and seven positive qualities (courage, wisdom, dexterity etc.) that the character had in various degrees. In addition to these qualities each character had a set of more traditional skills.

Blade of Destiny featured a combat system which was totally different to the ones seen in other games modeled after *Dungeon Master*. Instead of using the first-person perspective, the game shifted to an isometric view where combat took place in a turn-based manner, as shown in figure 19. This solution allowed for more emphasis on tactics rather than the quick reflexes required by real-time combat. It's worth noting that *Blade of Destiny* strived for realism in combat, taking into consideration variables such as weather conditions and terrain types, which had effect on the party's movement.



Figure 19. *Realms of Arkania: Blade of Destiny* (1993), in which the battles took place in a turn-based isometric environment

One other *Dungeon Master* clone warrants a mention, namely *Stonekeep*, published in 1995 by Interplay. While much like other similar games mentioned here in many aspects, it was one of the few CRPGs to feature extensive live action cutscenes. The game was critically acclaimed, the cinematic sequences and immersive atmosphere receiving special praise.

3.16A summary of the Golden Age of CRPG

Many of the most influential games were made during a period spanning from the late 1980s to early 1990s, a period which Barton calls “The Golden Age of Computer Role-Playing Games”. According to Barton this was “by far the most prolific and diverse period in CRPG history”. A typical game of this era was designed with the hardcore gamer in mind, someone who was familiar with tabletop RPGs or was experienced in CRPGs. As Barton points out, many of the games of the era require such dedication from the player that they “Today [...] wouldn’t get past the first round of negotiation with a commercial publisher.”

On the other hand an opposite trend can be seen especially with JRPGs of the era. Aimed at a different audience they retained only the essence of CRPGs and added ac-

tion elements more at home in the arcades or contemporary platformers such as *Super Mario Bros.* (Nintendo 1985).

In the following years the CRPG industry saw a fall of many of the big names in game development.

3.17 The fall of SSI

In the early 1990s SSI produced many mediocre games set in different *AD&D* universes – among them such titles as *Spelljammer: Pirates of Realmspace* (1992), *Dark Sun: Shattered Lands* (1993), *Ravenloft: Strahd's Possession* (1994) and *Al-Qadim: The Genie's Curse* (1994). None of these games any offered any particularly influential innovations nor did they manage to gain commercial success, leading to TSR withdrawing their license for the use of the *AD&D* franchise. SSI slowly drifted into obscurity and after trading hands a few times was finally bought by and assimilated into Ubisoft in the early 2000s.

3.18 The last games in the Ultima series

The same eventually happened to Origin's *Ultima* series. In *Ultima VIII: Pagan*, released 1994, the company made a dramatic change to the game concept, putting heavy emphasis on action elements like running, jumping and fast-paced combat, at the cost of the more traditional CRPG elements that were usually associated with the series. Needless to say, many long-time fans of the series were extremely disappointed. While some critics regarded the new game concept as a welcome change, the released version was riddled with bugs, effectively making *Ultima VIII* frustrating to play for even the most die-hard fans of the franchise.

Instead of trying to rectify the mistakes made with *Ultima VIII*, the 1999 released *Ultima IX: Ascension* continued on the same tracks. Garriott had promised a game more reminiscent of the older installments in the series, even offering fans of the series the

possibility for suggesting features for the game. However he failed to deliver, resulting in even more disappointment than the previous *Ultima*. To top it all off, the plot in *Ascension* had many inconsistencies regarding the continuation of the *Ultima* canon. The weak sales of both *Ultima VIII* and *Ultima IX* marked the end for the series, as all other *Ultima* projects were canceled.

3.19 The beginning of the era of the real-time rendered fluid 3D – *Ultima Underworld*

During the years before *Pagan Origin* managed to produce one of the most historically important games in not only CRPG history, but computer game history in general. A spin-off from the popular series *Ultima*, a game called *Ultima Underworld: The Stygian Abyss* was the first game ever to offer fluid movement in a real-time rendered 3D world of textured polygons (see figure 20). *The Stygian Abyss* was published in 1992 months before id Software's *Wolfenstein 3D*, the archetype of the first-person shooter genre. Indeed, according to an article in the e-zine *Edge* (Rössell 2006) one of the developers of *Wolfenstein*, John Carmack, “happened to see a demonstration of *Ultima Underworld*, Blue Sky's upcoming 3D dungeon-crawler for Origin – and something in him popped.”



Figure 20. *Ultima Underworld: The Stygian Abyss* (1992), the first game to offer real-time rendered fully fluid 3D

The Stygian Abyss was developed by a small group of developers called Blue Sky Productions, who showed the prototype of the game engine to Origin. Originally it didn't feature any *Ultima*-elements – they were added on after the deal with Origin to publish the game. The game has many similarities to *Dungeon Master*, the most pronounced difference being the fluid, real-time rendered 3D. Now the player could examine his surroundings freely, unrestrained by the 90° turns featured in *Dungeon Master* and its successors. He could also look up, down, jump and swim. *The Stygian Abyss* had a very powerful auto-mapping feature that allowed the player to add his own notes on the map. Another innovation seen in later games, most notably *Diablo* is the representation of hit points and spell points by two flasks of different colors, the amount of liquid in them signifying the current status of health and arcane power.

The *Stygian Abyss* paved way for such later games as Bethesda's *Elder Scrolls* series and many other similar games, and spawned countless clones in the years following its release. The technical breakthrough was recognized by the whole gaming industry, and describing the legacy of the game in an article for Gamasutra.com Sam Shahrani (2006) claims that "all 3D RPG titles from *Morrowind* to *World of Warcraft* share *Ultima Underworld* as a common ancestor, both graphically and spiritually ... [and] for better or for worse, *Underworld* moved the text-based RPG out of the realm of imagination and into the third dimension."

3.20 The Elder Scroll series

The influence of *The Stygian Abyss* is apparent in the first game of the *Elder Scrolls* series, *The Elder Scrolls: Arena*. Released in 1994 by Bethesda Softworks, it marks the beginning of one of the most successful CRPG series today. The games in the *Elder Scrolls* series are first-person games featuring a very large world, a feature for which the series is known.

3.20.1 *The Elder Scrolls: Arena & The Elder Scrolls II: Daggerfall*

The game world in *The Elder Scrolls I* includes cities and dungeons, and a staggeringly big wilderness featuring inns, farms and small towns. The wilderness was created randomly, and any player of the game would become very familiar with it, as the game lacked any means of fast travel between places of interest. Mirroring what was to come in future installments of the series, *The Elder Scrolls I* includes several hundred towns, dungeons and NPCs. *The Elder Scrolls I* missed the Christmas sales of 1993, and its release was a commercial disaster for Bethesda. It wasn't until the release of *Elder Scrolls: Daggerfall* in 1996 that the general public became aware of the franchise. *The Elder Scrolls II* features completely non-linear sandbox style gameplay, meaning that the player is able to play the game very creatively as there is no "right way" to play the game. The best known and most influential example of the sandbox principle is the best-selling game *Grand Theft Auto III* (Rockstar Games 2001), which also offered a game environment without restraints that the player is able to explore any way he wants.

The developers of *The Elder Scrolls II* intentionally downplayed the story to emphasize the possibilities offered by the incredibly large game world. The manual makes no reference to any plot, but instead puts the matter as follows: "What is the story?" It is not for us to answer. Follow your own spirit and tell your story in your own way. We hope only to help you make it *real*." Continuing along the same lines it goes on to advise the player: "If your character is caught pick pocketing, if a quest goes wrong, or some other mundane mishap occurs, let it play out. You may be surprised by what happens next." While many other CRPGs explore the possibilities offered by a sandbox style gameplay, *The Elder Scrolls II* was one of the first games to self-consciously introduce it to the mainstream.



Figure 21. *The Elder Scrolls II: Daggerfall* (1996)

Trent C. Ward offers an excellent quote on the subject in his review of the game for Gamespot.com (Ward 1996):

No longer forced to play the way The Man wants, we are now free to ignore the pleadings of the princess, wander off, and get involved in other complex tales that change and evolve in response to our actions! Here lies the greatest strength and weakness of *Daggerfall*. Those who are looking for an adventure that follows a straight path, that they can sit down and solve, are bound to be terrified (and annoyed) by the entropic nature of this game.

The ambitious nature of *The Elder Scrolls II* presented many problems in development, resulting in a plethora of bugs in the game. Fortunately the Internet existed by this time, and frequent patches were released fixing at least some of the bugs. Another problem was the many randomly generated dungeons in the game. The algorithms responsible for generating them were not sophisticated enough, resulting in many illogical dungeons that took hours to explore – only to find that there was no big reward at the end. While this is certainly realistic, it makes for frustrating gameplay at times.

3.20.2 The Elder Scrolls III: Morrowind

The game that really propelled the series into popularity was *The Elder Scrolls III: Morrowind*. The game, released in 2002, offered a choice between first- and third-person perspectives, both modes offering their advantages. In addition to better graphics the game fine-tunes the already realistic skill system of the series, and does away with most of the on-screen icons and menus (see figure 22). Primary skills such as speed, personality and luck, rise only when the player gained a level, while secondary abilities such as combat arts improve by use. This means that a character who runs and jumps a lot will see their acrobatics score rise. The same goes for wielding different weapons and casting spells. The skill system is not without its problems, though, as a player can exploit it by standing in one place and repeating an action, all the while gaining experience and skill. It is also relatively easy for players to achieve a level of experience that renders even the most powerful enemies into pushovers.



Figure 22. *The Elder Scrolls III: Morrowind* (2002). A screenshot showing the quite advanced graphical qualities of the game

Included with the game is *The Elder Scrolls Construction Set*, an editor which allows users to make modifications to the game. Hundreds of mods are available online, rang-

ing from interface alterations to new powerful items to simply weird mods such as the “20 books” module which includes works of authors such as H.P. Lovecraft and the brothers Grimm as readable books in the game.

3.21 Diablo

Taking a different approach from the real-time 3D game environment, Blizzard, better known for its strategy games *Warcraft* (1994) and *StarCraft* (1998), entered the CRPG scene with the best-selling game *Diablo*. Released in 1996, *Diablo* went on to win numerous awards and was uniformly praised by critics.

In the mid-1990s, action-oriented CRPGs were far more plentiful on consoles than computers. Blizzard is known for its uncanny ability to produce games of high quality that appeal to the masses. Bill Loguidice of Gamasutra.com describes the uncanny blend of action and RPG seen in *Diablo* as follows:

Blizzard’s strategy was to keep what was fun about CRPGs intact, but move the complex and often intimidating statistical and literary elements under the hood. All fans of CRPGs enjoy watching characters “level up”, becoming stronger and more proficient as the game progresses. They also enjoy the visceral nature of defeating increasingly tough monsters and exploring dangerous and mysterious places. However, standard CRPGs can take days or even weeks for novices to master, whereas any reasonably intelligent person can get *Diablo* up and running in minutes (Loguidice, Barton 2009).

Presented in an isometric third-person view, *Diablo* is best categorized as an action CRPG. Emphasizing quick reflexes over tactics, the game can be seen as a fully graphical take on the roguelike sub-genre. The player controls a single character, representing one of three available classes: warrior, rogue and sorcerer. The character has only four basic stats: strength, dexterity, magic and vitality.

Another example of the streamlining of game elements exercised by Blizzard is the simple interface in the game, shown in figure 23, as it is based purely on mouse-clicks. The interface includes an automap feature which is overlaid on the screen, eliminating the need to pause the game in order to look at the map. Other features further simplify gameplay, such as the numbered slots for quick use of items shown under the main screen. The player can quickly see the status of his character by looking at the red and

blue orbs, which signify hit points and spell points. This feature is directly inspired by similar bottles in *The Stygian Abyss* (see page 63).

Other the key aspects that made *Diablo* such a success are the constant rewarding of the player in the form of loot dropped by slain monsters, and the ease of internalizing the game's mechanics for new players. Virtually anyone could sit down and start playing, and be comfortable with the game in ten minutes. A feature inherited from roguelikes is the high degree of randomization in the game. Every time a new game is started, the dungeons, monster locations, and item capabilities are randomized, giving the game immensely more replay value. In addition an expansion pack called *Hellfire* was released in 1997.



Figure 23. *Diablo* (1996) features a very intuitive interface and the ingenious method of overlaying the map on the main screen

3.22 Diablo II

Diablo was succeeded by *Diablo II* in 2000. Offering better graphics and a significantly larger world with several dungeons to explore, the game is one of the best-selling CRPGs in history. The full randomization of *Diablo* is replaced with some static rooms and quests, offering a more linear style of gameplay. The player could now choose from five different classes and the skill system was completely revised to one better suited for long-term development of the character. The equipment system saw some new features, the most important one being sets of armor from which additional bonuses could be gained, depending on the amount of items belonging to the same set equipped. This set-bonus feature is seen in many later games, such as *The Witcher* (Atari Inc. 2007). In addition to exploring the game world by himself, the player is given an option to recruit hirelings which assist in combat. The interface saw some streamlining too, as players complained that some dropped items were too hard to spot in *Diablo*, resulting in “pixel hunting” – sweeping the mouse over each area to check for rings and other small items. In *Diablo II* the player can press down the ALT key, which highlights all interactive items on the screen. This feature too is seen in countless later games.

Diablo II received its own expansion pack, *Lord of Destruction*, in 2001. In addition to added content, the expansion pack offered the possibility to play the game with a higher screen resolution (800 x 600).

Both *Diablo* games support Blizzards Battle.net allowing multi-player gameplay.

Like all best-selling games, *Diablo* unleashed a frenzy to develop clones. Indeed Gamespot’s Trent C. Ward commented in his 1997 review of *Diablo* (Ward 1997) that the game was “likely to be the clone maker for the next two years.” His estimate was however modest, as *Diablo* clones are still developed today. Most notable among these is the popular *Dungeon Siege* series, developed and published by Gas Powered Games. Another noteworthy clone is *Torchlight* by Runic Games, released in 2010 and constantly receiving updates and new content. It’s worth noting that *Torchlight* is developed by a group of ex-Blizzard developers, many of whom were part of the *Diablo* development team.

The influence of *Diablo* on subsequent games was huge. It established many conventions still in use in CRPGs today, and popularized the use of an isometric mode of presenting game environments, as seen in e.g. the *Fallout* series and the *Baldur's Gate* series.

3.23 *Fallout* & *Fallout 2*

It is fair to say that most CRPGs are set in a fantasy world, inspired originally by the setting in J.R.R. Tolkien's *The Lord of The Rings* epic, or subsequent similar worlds. Another popular genre is games set in a sci-fi environment, with countless examples existing in CRPG history.

Interplay's *Fallout* and its sequel *Fallout 2*, released in 1997 and 1998 respectively, present something totally different. Set against a backdrop of a post-apocalyptic wasteland ravaged by nuclear holocaust, *Fallout* was a much needed break from the fantasy and sci-fi heavy pattern of game worlds. Although it is not the first game to feature a post-apocalyptic setting, and not even the first CRPG as *Wasteland* (Interplay 1988) preceded *Fallout* by almost ten years, it is presented with such style and finesse that it remains one of the most beloved CRPGs of all time. Matt Barton, a game historian, describes the appeal of *Fallout* as follows (Barton 2007):

We can sum up *Fallout*'s appeal in a word: style. The governing aesthetic is a surreal mix of cheerfully morbid 1950s Cold War imagery and movies like *Mad Max*, *Planet of the Apes*, and *Dr. Strangelove*. There are even hints of *The Evil Dead* tossed in for good measure. This juxtaposition makes for some of the most compelling moments in gaming history, and most gamers will get goose bumps the first time they see the introductory cut scenes. Furthermore, the aesthetic runs all the way through the game, including the interface.

Indeed, few games are as thorough and as successful in staying in character through the whole concept, from the game manual to the interface mentioned by Barton (see figure 24). The game manual is presented as a "survival guide", having the distinct look of a government publication and referring to the game as a "simulation". It is apparent that the developers were highly enthusiastic and had tons of fun while creating *Fallout*.



Figure 24. *Fallout 2* (1998). The style of the interface elements is perfect for adding to the game's atmosphere

The player assumes the role of the Vault Dweller, a member of a group of people who have been sealed into a vault for generations for their own protection, just before the holocaust started. Venturing into the wasteland in search of a new water purification chip, the seemingly simple fetch mission soon turns out to be something much bigger.

Both *Fallout* and *Fallout II* are presented in an isometric third-person perspective, much like *Diablo*. While the game proper is real-time, all combat is turn-based and very tactical. The game features a wide array of both manufactured and improvised weapons. The combat system features the possibility of aiming at a certain body-part, with a hit resulting in concrete consequences. For instance, getting hit in the leg makes movement harder and getting hit in the eye makes ranged combat much harder. The game also takes into account weather and lighting conditions, so that hitting a target in a dim corridor is harder than in broad daylight.

In addition to skills such as small guns, lock-picking, repair etc. the character can have two optional traits, each with both positive and negative effects. For example, “Small Frame” improves the characters agility by one point at the expense of a smaller maximum carrying capacity while “Chem Reliant” lowers the characters threshold for chemical addiction, but greatly lessens the time needed to recover from the negative effects of a chemical. In addition to these traits, which are decided at character creation, the player can choose a perk to improve character every three levels. Perks grant the character special abilities not obtainable through the normal level up system. Perks include abilities such as letting the player heal faster or performing more actions in a round of combat. Unlike traits, perks are purely beneficial. The inclusion of traits and perks makes the character a lot more personal for the player, and enhances replay value since very different character builds are possible.

Both *Fallout* games use the same engine, and offer almost identical gameplay. The biggest change between the games is the ability to train and equip NPCs in *Fallout 2*. The dialog options are also slightly better than in the first game.

In 2001 Interplay released a strategy game set in the same world, by the name of *Fallout Tactics: Brotherhood of Steel*. While it features some role-playing elements it is still strictly a strategy game, based on the combat system of the *Fallout* games.

3.24 Baldur’s Gate & Baldur’s Gate II

After the Black Box games, no successful *AD&D* CRPGs had been released. After discontinuing the license with SSI TSR made a few unsuccessful attempts to resurrect the franchise with games like *Birthright: The Gorgon’s Alliance* (Sierra On-Line 1996) and *Descent to Undermountain* (Interplay 1997). Eventually TSR teamed up with the Canadian developer team BioWare who finally got the formula right, resulting in *Baldur’s Gate*, released in 1998.

BioWare’s debut in CRPGs was, like Blizzards, a huge success. Based on the isometric Infinity Engine seen in figure 25, the game made up for its lack of a 3D environment

with high quality game design such as a highly intuitive interface and detailed scenery and animations. Like the *Fallout* and *Diablo*, *Baldur's Gate* allows the player to create only a single character. Otherwise presented in real-time, the game switches to a turn-based mode once for combat. A unique trait in the Infinity Engine is that it is designed to allow most battles to be fought completely by the artificial intelligence system, which is highly configurable by the player. The player is naturally not forced to use the AI, as pressing the space-bar at any time pauses the game and allows for manual entering of commands.



Figure 25. *Baldur's Gate* (1998) features the isometric Infinity Engine

Although the player can create only one character, he can control a party of up to five members. This is a key aspect of the game, since it allows the player to recruit NPCs with differing abilities and personalities. Indeed, the choice of party members influences the plot significantly, as some characters can actually betray the whole party at key moments in the story.

Compared to *Diablo*, *Baldur's Gate* offers much more strategy, utilizing the underlying AD&D rule system. It also offers a much richer storyline and characters, made all the better by exceptionally good voice acting.

A year after the release of *Baldur's Gate*, BioWare released *Tales of the Sword Coast*, an expansion pack featuring new quests, areas and items. The gameplay in the expansion was also revised with some minor improvements.

Baldur's Gate's sequel was published in 2000. Using the Infinity Engine, the game shares the look and feel of the first game in the series. The main difference between the two is that *Baldur's Gate II: Shadows of Amn* gives the player more freedom in the form of optional quests. The expansion, *Baldur's Gate II: Throne of Baal* is in fact the third and final part of the saga which makes the expansion more significant than usual.

3.25 Planescape: Torment

In 1999 Interplay published another game based on the Infinity Engine, this time set in the dystopian *Planescape* universe, borrowed from the tabletop version of AD&D. While the gameplay is very similar to *Baldur's Gate*, the game warrants special mention due to its extensive dialogue and philosophical approach to the genre. *Planescape: Torment* blends together elements of dark humor with the grim surroundings and is praised by critics for its unique plot, setting and characters. Matt Barton describes his view of the game in his book about CRPG history: "although I've played my share of CRPGs, I can think of very few that manage to rise above the status of game and into something approaching art [like Planescape:Torment does]." (Barton 2008)

3.26 Icewind Dale & Icewind Dale II

Following in the footsteps of *Baldur's Gate*, *Icewind Dale* took a step towards the old Gold Box games in the sense that the player is again free to create the whole party instead of just the main character. This presents the same problems as many other games

that are quite combat heavy and let the player create the whole party from scratch; building a party with a balanced skillset is of paramount importance if one is to survive. Even though the game engine used is not the Infinity Engine, much of the game mechanics and interface is identical to *Baldur's Gate* (see figure 26). *Icwind Dale* focuses more on battle than *Baldur's Gate*, and has a much more hack 'n slash feel to it.



Figure 26. *Icwind Dale* (2002) features an almost identical interface to the one seen in *Baldur's Gate*

Icwind Dale II was released in 2002 and the biggest difference to the first game in the series is under the hood, as the game switched over to use the 3rd edition *AD&D* rules in contrast to the 2nd edition rules used in previous *AD&D* games. The game also offers a more substantial story than *Icwind Dale*, featuring more meaningful interaction with NPCs. Both facts contribute to a more nuanced game, but like its predecessor *Icwind Dale II* is primarily a quite linear hack 'n slash game.

3.27 Neverwinter Nights & Neverwinter Nights 2

The final games that can be seen belonging to the same group of more modern AD&D CRPGs discussed in this study are *Neverwinter Nights*, published in 2002, and its sequel *Neverwinter Nights 2* which saw daylight in 2006. This newer *Neverwinter Nights* by BioWare should not be confused with the 1991 on-line game from SSI bearing the same name.



Figure 27. *Neverwinter Nights* (2002). The fully 3D capable Aurora engine has considerably better graphics than its isometric forebearers

Sharing many features with the Infinity Engine, *Neverwinter Nights* is made with the fully 3D capable Aurora Engine, allowing for much more impressive graphics than its predecessor, as shown in figure 27. The 3D capabilities of the engine also allows for free movement of the camera whereas the previous isometric engines, Infinity and Aurora, used a fixed perspective. The game uses the same 3rd edition AD&D set of rules as *Icwind Dale*.

Perhaps the most interesting feature in *Neverwinter Nights* is the included editor, again allowing the user to create his own modules for the game. Combined with the powerful Aurora Engine, this editor makes *Neverwinter Nights* “a highly expandable do-it-yourself CRPG kit” (Barton 2008). Today, there are hundreds of high quality user generated modules available for download. In addition to the multitude of player generated modules, BioWare has released several expansions such as *Hordes of the Underdark*, *Descent to Undermountain* and *Wyvern Crown Cormyr*.

Obsidian created the Electron 3D game engine, used to make *Neverwinter Nights 2*, on the basis of the Aurora Engine. While enhancements are purely graphical, they should not be understated as the result looks as good as any modern game (see figure 28). However this means that the engine has not undergone any changes gameplay-wise, and *Neverwinter Nights 2* essentially very similar to the earlier similar games, like *Baldur’s Gate* and *Icwind Dale*.

A new installment, called simply *Neverwinter*, is being developed by Cryptic studios, and is scheduled for release in late 2011.

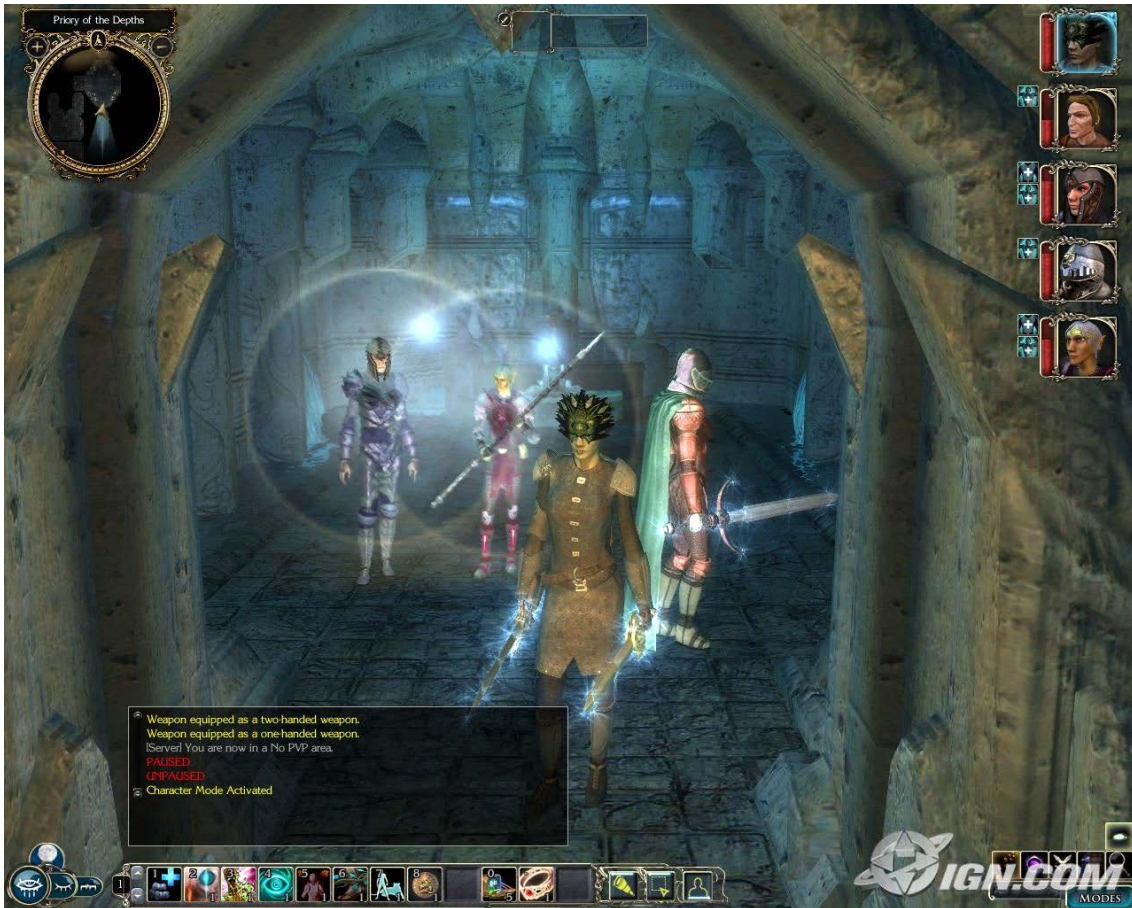


Figure 28. *Neverwinter Nights 2* (2006). By this time the graphics are on par with other modern games

3.28 Dungeon Keeper

One of the most original game concepts in the 1990s is seen in Electronic Arts' 1997 release *Dungeon Keeper*. Reminiscent of *Wizardry IV: The Return of Werdna* from 1987 the player assumes the opposite role to the one in most games, in *Dungeon Keeper*'s case that of the dungeon maker. The object of the game is to keep out nosy groups of adventurers by building the most devilish dungeon imaginable with the resources given. Gameplay consists of designing the layout of your dungeon and equipping it with traps, monsters and other stuff sinister dungeons are made of such as prisons and torture chambers. This is done via an isometric view and a typical real-time strategy game interface, shown in figure 29.



Figure 29. *Dungeon Keeper* (1997). Left: the isometric view used for dungeon design. Right: The first-person view used when possessing a creature.

Although the game features a possibility to possess one of the player's creatures, entering a first-person mode in which it is possible to directly engage a party of heroes (see figure 29), *Dungeon Keeper* clearly falls under the category of strategy games. However it warrants a mention here not only due to its ingenious concept, but also what that concept represents: an emphasis on morality – in this case an inverted one.

Peter Molyneux, a famous developer guru and the creative mind behind the game concept, has a tendency to explore different aspects of the concept of morality in many of the games he has developed. Good examples of this are *Populous*, the archetypal god-game released in 1989, and especially *Black & White*, released in 2001. In both games the player assumes the role of a god, with the goal of leading one's own tribe into flourishing – often at the expense of other tribes. *Black & White* also features the "Creature", an avatar of the god in the form of a giant animal. The Creature can be taught to behave in different ways by either rewarding it for good deeds or punishing it for bad deeds. The same applies for the player's tribe, and by choosing what approach to use the player can either be a benevolent and forgiving ruler or a wicked god to be feared.

The emphasis of morality has been a rising trend in modern games, although it has been present in varying grades in all CRPGs as morality and ethics are integral parts of role-playing in general. One of the most notable examples was perhaps in the strong reaction by Christian fundamentalists towards *Ultima III* and the resulting virtue system used in all later *Ultima* games, see chapter 3.2 starting on page 25.

3.29 Star Wars: Knights of the Old Republic

We have mostly discussed games set in a fantasy environment, with the exception of some titles such as *Fallout* and *Planescape: Torment*, which should not be taken as a sign of all CRPGs using a medieval setting. Sci-fi CRPGs is another popular genre, seen in such modern series as *Mass Effect* (see page 89) and *Star Wars: Knights of the Old Republic*.



Figure 30. *Star Wars: Knights of the Old Republic* (2003)

Set in George Lucas's *Star Wars* universe, *Star Wars: Knights of the Old Republic* and its sequel *The Sith Lords* are both excellent examples of modern story centered sci-fi CRPGs. In addition they mark a shift for western developers towards prioritizing consoles over computers, as *SW:KotOR* was first released exclusively for the Xbox. Two months later a Windows version was released.

Built on BioWare's Odyssey game engine, which is based on the Aurora engine used in *Neverwinter Nights*, the *SW:KotOR* games offer a rich 3D environment, as seen in fig-

ure 30. A notable feature in the Odyssey engine is its capability for facial expressions, essential for modern games with such amount of human(oid) interaction as these. The first *SW:KotOR* was released in 2003 and received much praise for its excellent writing, which is quite rare, and won the *Game of the Year* award from both *Computer Gaming World* and *PC Gamer* (Barton 2008). *Star Wars: Knights of the Old Republic: The Sith Lords* was released a year later, and had a similar reception. Another complimented feature in both games was the exceptionally well executed voice acting, an aspect in game development that has become more important by each generation of modern games.

As games grow bigger and bigger, naturally more dialogue is needed. In modern games which are starting to as a rule be at least the size of *SW:KotOR* and its sequel, the amount of dialogue is staggering. In an interview for Gamespot.com (Gamespot Staff, 2003) Darragh O'Farrel, the manager of BioWare's voice department, explains that "one complete copy of the Knights of the Old Republic script fills up 10 5-inch binders". The game had 15 000 lines of dialogue, covering over 300 different characters, acted out by 100 actors in a period of roughly five weeks.

Many big-budget games use well-known actors in their productions. For instance *SW:KotOR's* voice cast includes such names as Ed Asner, Raphael Sbarge, Ethan Phillips, Jennifer Hale, and Phil LaMarr.

The game emphasizes ethical decisions, keeping track of the player's moral standing with a meter for good and evil actions. Considering the fact that the protagonist can use the Force, and thus faces the classic *Star Wars* cliché of choosing between the light and dark side, a strong presence of morality is hardly surprising. Both approaches have their in-game rewards and while most players probably instinctively end up being somewhere in the middle of the scale, playing the game as either polarity offers a much more interesting experience.

3.30 Modern CRPGs

3.30.1 The Fable series

Peter Molyneux's latest brainchild is the *Fable* series. The first installment in the series was originally published exclusively for the Xbox in 2004, but an enhanced version was released a year later for both Windows and the Xbox by the name of *Fable: The Lost Chapters*.

All three *Fable* games released so far are set in the medieval world of Albion, where Heroes, special people with magical powers, exist among the common people inhabiting it. Naturally, the protagonist is one of these Heroes.

The gameplay in *Fable* games relies more on action than tactics, and brings to mind action adventures such as *Zelda*. Quick reflexes are required, although some planning goes into the development of your characters combat abilities. The player can opt for a character proficient in either melee, ranged combat, magic, or as often is the case, some combination of the three. Combat happens in real-time, and is a straightforward affair involving clicking the mouse repeatedly. Slight variations in technique are required depending on whether one is using melee, a ranged weapon, or magic. The game world is presented in full fluid 3D, and each installment has been on the cutting edge of graphics of its age.

It can be argued that the central themes in all *Fable* games are moral dualism and development. In the first installment the player begins the game as young boy, who will age into an old man during the course of the game. What kind of man he becomes is determined by both conscious and unconscious choices in the game. The ability to freely develop your own character in realistic ways is one of the key selling points of the series. A melee inclined character, for instance, will accumulate scars from battles and become muscular from wielding his weapon – while a magic user will slowly gain glowing arcane marks on his skin. Likewise moral choices will shape the character's appearance; a good character will develop a saintly aura and eventually an angelic halo, whereas an evil one limps and grows horns. Eating copious amounts of unhealthy food will make

the character fat, staying in the sun will make it tanned etc. Much emphasis is placed on how the character looks, further proven by the fact that in addition to the varied effects described above, all the games in the series offer a plethora of outfits, hair- and beard-styles and tattoos. This results in a very wide variety of possible appearances for the character, illustrated in figure 31.

The game environment is highly interactive, offering possibilities for marriage and procreation among other things. While NPC reactions have a tendency to get repetitive, their reactions are very well programmed, as demonstrated by this quote from the a review of *Fable* for IGN (Goldstein 2004):

Again, there are some real problems with the character interaction, just because it does become pedantic quickly, but you can also get some really fantastic responses when you aren't expecting them. My wife caught me hitting on some girls in town and she began cussing them out. I proceeded to give the girls some gifts, which flipped my wife off to no end. I found her later at the bar, drinking herself to the point that she could barely stand, cursing at me in the bar, wondering why she ever married me. A perfect re-creation of my own life.



Figure 31. *Fable II* (2008) features an amazing variety of possible appearances for the character

The protagonist is always male in the first *Fable*, but the release of *Fable II* in 2008 gave the player a choice of gender. *Fable II* is set five hundred years after the events of

the first game, and while featuring fewer locations to explore it greatly expands on them. The environment is also more interactive, offering the possibility of entrepreneurship in the form of buying shops and stalls. The game offers some choices with dramatic results for the game world. For instance, the player is offered a choice between helping a sheriff catch criminals or aiding the criminals in evading the law. If he chooses to help the sheriff, the part of town becomes a peaceful and pleasant place when visited later in the game as a grown man; if he aids the criminal, the opposite happens and it becomes a den of corruption. Another example is that frequently trading with a small gypsy camp will make it grow into a small settlement with time.

Fable III, released in 2010 for the Xbox 360 and in 2011 for Windows, differs from the earlier installments most notably in the aspect that the player starts the game as a young adult. Instead of being a commoner, the protagonist is the prince of Albion who sets out to overthrow the tyrant king, his older brother.

The gameplay is similar to that of the other games, with some new features, such as professions. Professions include baking, smithing, and playing the lute. Each of the tasks require the player to complete a short mini-game, and while you can earn money by doing them the mini-games quickly become repetitive. In addition to morphing your character as described above, the weapons used by the character evolve to different appearances depending on how they have been used. The game does away with the health bar, using environmental graphic change, a technique familiar from many action games, to signify being close to death. When health is low, the graphics become de-saturated and there is a red vignette effect superimposed on the screen. Solutions like this are an example of stripping the game of further game mechanics, a phenomenon often seen in action CRPGs or adventures, which helps to further streamline the game. An interesting feature unique to *Fable III* is the Sanctuary which works like the menu screen. Instead of using a 2D interface for different menus or screens, the Sanctuary is a 3D environment where different rooms are the normal menu sections, to which the player can teleport from anywhere by pressing the start-button. The Sanctuary allows access to changing equipment and outfits, Xbox LIVE-features of the game, and another concept unique to *Fable III* called "The Road to Rule". Substituting the previous methods of leveling up in Fable, the Road to Rule is a 3D environment in the form of a long road

divided into sections by gates. Along the road there are chests which contain new aspects of gameplay, from spells and combat skills to property packs and new sets of expressions. The gates open at certain points of the game to grant the player access to new chests. While this method of presenting elements usually handled by menus or dedicated screens is certainly innovative, it is hard to see its benefits. One could possibly argue that the flow of the game is not interrupted, since the method of input remains the same as in the game proper. In other words instead of taking an interval in regular gameplay and navigating a menu, the player continues to play as he did before entering the menu which in this case is a 3D environment.

The story in *Fable III* is more linear and significantly shorter than in earlier *Fable* games. After leading the people into a successful revolt the player enters the second phase of the game, where he as the new king must make decisions concerning the whole of Albion. However most of the decisions are very dualistic, often offering a black and white choice, clearly indicating which option is the morally respectable one. Instead of offering any hard ethical choices, the second section of the game is essentially reduced to the player boosting his alignment either towards good or evil.

The *Fable* series is an excellent example of the sort of open and dynamic game world modern gamers have grown to expect. The kind of interactivity offered offers immense replay value, not to mention how much more interesting it makes the game world. True-to-life realism would make for boring games, but for instance the ability to interact with most things one would expect to interact with helps create the sort of realism needed to make the game environment feel like a real enough place.

3.30.2 The Elder Scrolls: Oblivion

The latest installment in the *Elder Scrolls* series, *The Elder Scrolls IV: Oblivion*, was released in 2007 by Bethesda Softworks. Like the earlier games in the series, *Oblivion* offers an incredibly vast world to explore, presented in the open-world tradition of its predecessors, allowing the player to travel anywhere in the world at any time and to postpone the main storyline indefinitely. There are a plethora of side-quests and plots to

get involved in. The game features for instance a whole series of quests which require the player to first successfully become a vampire by being bit. Like other such side-quests, the player can be totally oblivious to the existence of the vast and intricate world of vampires unless he by chance (or intentionally) gets bit and contracts vampirism.

Oblivion, and games in the *Elder Scrolls* series in general, represents another sort of approach to the realism made possible by an open and dynamic game world. Instead of offering readymade options of interaction the way *Fable* does, *Oblivion* leaves it up to the player to choose what kind of interaction is meaningful. *Oblivion* is a true sandbox-type game, offering total non-linearity and no “right way” to play.

Presented in a choice of first- or third-person fluid 3D environment, the gameplay in *Oblivion* is almost identical to that of *The Elder Scrolls III: Morrowind*. Game engine-wise the biggest change is the updated graphics, seen in figure 32.



Figure 32. *The Elder Scrolls IV: Oblivion* (2007). The graphics in the *Elder Scrolls* series are becoming more and more realistic.

3.30.3 Fallout 3

Unlike the first two games in the *Fallout* series, *Fallout 3* was developed by Bethesda Softworks, and is built on the same Gamebryo engine used for the two latest installments in the *Elder Scrolls* series. The likeness between the games is obvious, even though they feature two very different settings (see figure 33). In addition to looking similar, the games offer very similar gameplay. *Fallout 3* offers thus a very different gaming experience than the previous two *Fallout* games. However Bethesda has succeeded in retaining the unique style of the series, and the shift to a fully 3D environment makes for a richer gaming experience. The open-ended sandbox approach seen in *Oblivion* is also used in *Fallout 3*.

An interesting feature in *Fallout 3* is the possibility of in-game manufacture of items. Combining different scrap parts scavenged from the Wasteland, the player is able to assemble different weapons and enhancements. This effectively creates a need for scavenging the endless heaps of scrap, adding to the desolate and dystopian atmosphere.



Figure 33. *Fallout 3* (2008) uses the same engine as the latest installment in Bethesda's other main franchise, *The Elder Scrolls IV: Oblivion*, and thus shares a similar look and feel

3.30.4 Mass Effect

The *Mass Effect* trilogy is an award-winning and best-selling series of sci-fi CRPGs, sometimes also categorized as CRPG shooters. Built on the Unreal 3 engine by Epic Games, a very popular 3D engine primarily used for first-person shooter-type games, the games feature detailed 3D graphics and impressive effects (see figure 34). Presented from a third-person view, the game follows the adventure of Commander Shepard who can be of either gender. Shepard's face is totally customizable as is his background and military history. In the beginning of the first game Shepard joins the Spectres, an elite intergalactic strike-force, and is soon drawn into an adventure where the stakes are no less than the fate of the entire galaxy. The player has direct control of only Commander Shepard, however he can be accompanied by up to two autonomous squad-members.

The game resembles *Star Wars: Knights of the Old Republic* in many ways. Both games are very story oriented and emphasize the characters, and one of *Mass Effect*'s strong suites is its solid writing. Like *SW:KotOR*, *Mass Effect* features top-notch voice acting. A similar scale for morality is applied, with the names of the extremes changed into "Paragon" and "Renegade". A high score in either alignment opens up new story options and can be used to intimidate or sweet-talk during dialogues, like in *SW:KotOR*. *Mass Effect* places more emphasis on combat, which is handled in real-time. However the player can pause the game at any point to change weapons or issue commands to squad-members.

The first game in the series was released in 2008 and received much critical acclaim. The Game Informer called the game "the next big franchise for science fiction junkies to latch onto [...] a huge step forward for videogames," saying that it "rings in a new age of interactive storytelling" and awarded it 9.75 points out of 10 (Mitchell 2007).

Mass Effect 2 was released in 2010 and features small improvements to the game engine, most notably affecting combat. A key selling point for the series is the ability to transfer a save-file used in *Mass Effect* to *Mass Effect 2*, and continue with the same character. Decisions made in the first game impact the subsequent games in some form, such as the possible love interest of Commander Shepard. However this feature affects

only minor details in *Mass Effect 2*, according to the Mass Effect Wiki. (Mass Effect Wiki)



Figure 34. *Mass Effect 2* (2010)

4 JAPANESE CRPGS: JRPGS

In Japan, the game scene has been dominated by gaming consoles made by Nintendo and Sega. Nintendo favored in-house development, and enforced a strict censorship of adult themes in games from licensed developers. This resulted in many of the western games that were ported to Nintendo systems being quite a bit tamer than the originals. Nintendo's family friendly approach is also seen in its own products, illustrated for instance by the inoffensive style of the *Zelda* series.

Another clearly Japanese tendency in games is the trend towards cuteness, coined as *kawaisa* by Chris Kohler, the author of *Power Up: How Japanese Video Games Gave the World an Extra Life* (Kohler 2004). JRPGs seem to juxtapose grim elements into cartoonish characters, and even quite adult and explicit themes are presented in a cute way. For instance one of the foes encountered in *Dragon Warrior* is depicted as a smiling green slime, which wouldn't seem to pose much threat to a player used to the often

quite gritty world of western CRPGs. A common mistake is to think that the cartoonish style signifies a game for children – a grave misconception.

The first JRPGs were heavily influenced by the early Ultima games, both featuring a top-down view and using tile-based graphics. The combat system in most JRPGs is a refined version of the one featured in SSI's Phantasie. JRPGs quickly distanced themselves from their western counterparts, though, and began an evolutionary journey of their own.

Whereas CRPGs originating in the United States and Europe are often more focused on tactics and tend to give the player more liberal approach to the game world, JRPGs rail the gameplay into much more linear narratives and often use full-motion video cutscenes to further the plot. Though this method of game design takes away much of the freedom of the player, it also allows for epic storytelling. Indeed one more difference between western and eastern games is that Japanese games often feature settings and stories involving a much higher grade of fantasy elements.

4.1 The Legend of Zelda series

Link, the protagonist in the Zelda series can justifiably be listed alongside such internationally known classic game characters as Mario, Pac-Man and Sonic the Hedgehog. Countless different paraphernalia use an image of Link, ranging from cereal boxes to belt buckles. The Zelda franchise is not only a game, it's a cultural phenomenon. While this fact can be said about many Japanese games, as the culture there favors the kind of branding seen in the Zelda franchise, few are as long-lived and popular as Link.

It can be discussed whether the games in the Zelda series are true RPGs. There are many differences between the Zelda series and both western CRPGs and JRPGs. Link does not gain experience nor levels and he has no stats. The combat system is more reminiscent of arcade type games, relying on the players nimble fingers rather than lucky rolls of the dice. The equipment found in the game don't have the same function as in

conventional CRPGs, having more of a power-up effect on Link than boosting his damage output or armor rating.

Whether one classifies the *Zelda* series as a RPGs, action adventures, or somewhere in between as action RPGs is irrelevant, as the influence of the first game in the series *The Legend of Zelda* is undisputed especially in the JRPG scene.

4.1.1 The Legend of Zelda

The Legend of Zelda was, like all *Zelda* games, developed by Nintendo. It was released in 1986 for the NES and features a top-down tile-based view of Hyrule, the game world (see figure 35). The story of the game is a take on the classic fantasy quest of saving the princess. Being relatively simple game, the gameplay is more that of an arcade game and the emphasis in the game is in the puzzles presented by different dungeons. *The Legend of Zelda* is the first game to equip the game cartridge with a battery, thus enabling players to save their progress for later continuation. This innovation is used by every console game that features the possibility to save on systems that use game cartridges. As *Vintage Games* (Loguidice, Barton 2009) puts it: “Although it’s easy to trivialize such a detail, it was instrumental in bridging the gap between console games and computers, the latter of which had the benefit of cassette and disk storage.”



Figure 35. *The Legend of Zelda* (1986)

4.1.2 The Adventure of Link

The second game in the series was released in 1987. *The Legend of Zelda: The Adventure of Link* differs greatly from all other installments of the series as it is mostly presented in a side-scrolling perspective, with exceptions for sections of the game featuring overland travel which are presented in a top-down mode. *The Adventure of Link* is the only *Zelda* game to feature experience points, which the player can use to enhance one of three stats: attack, magic and life. The game is also the only game in the series to include random encounters. Due to the different gameplay, *The Adventure of Link* is generally considered an oddball of the series.

4.1.3 A Link to the Past

The Legend of Zelda: A Link to the Past, the third installment in the series, was released in 1991 for the SNES. As a SNES game it had better graphics and sounds compared to the earlier *Zelda* games. The gameplay is very much like the first *Zelda*, featuring an action packed adventure seen from a top-down view. Instead of leveling up, Link can acquire more hit points by finding special heart-shaped icons hidden in the game world. The magical items in the game mostly serve the purpose of bypassing different obstacles, thus allowing Link access to new areas in game world. *A Link to the Past* features a much more sophisticated game world and plot than the earlier installments in the series, although the main plot remains the same as in all *Zelda* games: rescue princess Zelda from the clutches of evil lord Ganon. Still the emphasis in the game lies in the arcade type action.

Since all of the *Zelda* games were very successful in the U.S., the series can be held partly responsible for the western games going towards a more action-centered direction.

4.2 The Final Fantasy series

The *Final Fantasy* series is considered to be the crown jewel of JRPGs. Like *The Legend of Zelda*, *Final Fantasy* is very much a cultural phenomenon, even serving as basis for the feature film *Final Fantasy: The Spirits Within* (2001).

4.2.1 Final Fantasy

The first game, titled *Final Fantasy*, builds heavily on conventions established by *Dragon Warrior*, a game published originally as *Dragon Quest* by Enyx in 1986. While *Dragon Warrior* had only limited success in the U.S., *Final Fantasy* became a smash hit 1,99 million copies worldwide as of March 31 2003, with 780 000 of those sold abroad, most in the U.S (Square Enix, 2004). Developed by Hironobu Sakaguchi of Square (later Squaresoft and today Square Enix), the game was released in 1987 in Japan and 1990 in North America.

Final Fantasy is presented in a top-down view, and reminds of *The Legend of Zelda* in that aspect. However *Final Fantasy* is a proper RPG, featuring an experience point-based level system, a spell-point based magic system and an equipment system quite like the one in western CRPGs. The game has a strong emphasis on combat, and relies heavily on battles with random encounters. The combat screen consists of the enemies grouped on the left and the player's party on the right as shown in figure 36, and reminds of the battle mechanics in SSI's *Phantasie*. Combat is menu-based, where the player selects an action for each character from a list. Battles are turn-based, ending in either party being defeated or fleeing battle.



Figure 36. Figure. *Final Fantasy* (1987). Battle view.

The game's storyline warrants a special mention, as it begins with the stereotypical "rescue the princess" scenario. The princess is however rescued early in the game, and the inclusion of this quest seems to be aimed at making fun of traditional fantasy games.

Chris Kohler describes the storyline as being “about much more than saving the princess. Compared to the adventure that is about to take place, saving the princess is merely child’s play and prologue” (Kohler 2004).

Although *Final Fantasy* began what was to become one of the most long-lived and influential franchises in gaming history, later games in the series are generally considered to have better gameplay. This is probably due to the fact that *Final Fantasy* has a very high frequency of random battles, which get both repetitive and tedious.

4.2.2 Final Fantasy II

Final Fantasy II was released 1991 in North America, and offers a much richer storyline and characters than the first game. The game is also more plot-driven, following the tale of a young captain who starts to question the motives of his king. Like all *Final Fantasy* games, it blends together sci-fi, fantasy and steampunk elements – such as airships, tanks and even a fortress on the moon.

The game is actually the Japanese *Final Fantasy IV*, rebranded as *Final Fantasy II* for audiences in North America since the sequels in between were not released outside Japan. Thus Square had two games in which to develop the gameplay for what U.S. audiences perceive as the next game in the series. It is important to note that by the time of *Final Fantasy II*, JRPGs in general had moved from being “hack’n’slash”-combat oriented into putting more emphasis on the story and character development. This trend still continues today (Barton 2008, p.234). While the development towards a more story centered game happened quickly in the eyes of western players, in Japan the releases of *Final Fantasy* and *Final Fantasy IV* are four years apart.

This fact accounts for the many enhancements in gameplay compared to the first game. Since *Final Fantasy II* is a SNES game, the most obvious enhancements are audiovisual ones. The player’s party now consists of five characters rather than four, and instead of choosing from six possible character classes the game has 12 playable characters that enter and leave the party in different parts of the plot. *Final Fantasy II* also introduced

the concept of Active Time Battle (ATB). ATB could be described as an imaginary gauge for each creature involved in the battle. Once an action is performed this gauge is emptied and another action cannot be taken before the gauge is full again. The gauge can in other words be seen as measuring recovery from an action, and the speed in which the gauge fills up depends on the character. The ATB system effectively blends the boundaries between real-time and turn-based battle, and make battles fast paced for the player. He now has to decide his choice of action as soon as the party member is ready instead of waiting for his party's next turn. ATB is used in subsequent installments in the *Final Fantasy* series, and has also been adopted by many other JRPGs.

4.2.3 Final Fantasy III

Final Fantasy III, released in 1994, is the equivalent of Japanese *Final Fantasy VI* and features similar gameplay to *Final Fantasy II*. The character system in *Final Fantasy III* is more flexible, although all characters start out with pre-generated classes and personalities. All characters can learn magic with the player determining the spells rather than having the game automatically assign them. In *Final Fantasy III* the ATB gauge is visible rather than behind the scenes, as in *Final Fantasy II* (see figure 37).

What really sets *Final Fantasy III* apart from the competition and the previous games in the series is its intricate and finely nuanced story, comprised of a long list of main quests and roughly a dozen optional ones. Set in a steampunk world with roughly the technology level equivalent to the second industrial revolution, the game focuses on a group of rebels trying to overthrow emperor Gestahl, a tyrant who rules the unnamed world where the game takes place. Soon they realize the stakes are much higher than any political struggles, as the Empire is about to awaken a millennia old powers and release a war of apocalyptic proportions unto the world.

Final Fantasy III has won numerous awards and is regarded a landmark in the series and the CRPG genre. It was the first game in the series to be directed by someone other than series creator Sakaguchi. One of the most praised elements in *Final Fantasy III* is the musical score in the game. Composed by Nobuo Uematsu, it was instrumental in

setting the atmosphere for the game, and has been released on several soundtrack albums. It has even been rearranged for a professional orchestra and released as an album by the name *Final Fantasy VI Grande Finale*.



Figure 37. *Final Fantasy III* (1994) featuring the Active Time Battle gauges on the right

4.2.4 Final Fantasy VII

Final Fantasy VII is the sequel to *Final Fantasy III/VI*, and probably the most historically notable game in the whole series. The obvious difference between the two games is that in *Final Fantasy VII*, the series made a transition from 2D into 3D. The game is also the first *Final Fantasy* to take advantage of the CD-ROM format. While all previous games in the series were made exclusively for Nintendo console systems, the decision to use a CD-ROM meant that Square had to break their deal of exclusivity with Nintendo who were still using cartridges in their newest system, the Nintendo 64. Instead Square opted for the PlayStation published by Sony in 1995. This breaking free from the deal with Nintendo allowed Square to make an official Windows version of the game. This move made *Final Fantasy VII* the first game of the series to appear on computer, widening both its audience and influence considerably. Finally, the game is among the best CRPGs ever made, indeed among the best games ever made – demon-

strated by for instance GameSpot naming it one of its “Greatest Games of All Time” (Gouskos, 2006).

Like previous games in the series, *Final Fantasy VII* features a carefully constructed storyline and superb characters. The game has very polished gameplay and stunning graphics for its era. As IGN’s review (Boor, 1997) puts it: “The RPG by which all others are to be measured, FFXVII is a cinematic wonder.” The cinematic qualities of the game are further accentuated by the high-quality full-motion video sequences presented in the game, a feature which would have been impossible due to limitations of storage space, had the game been released on a game cartridge.

The gameplay in *Final Fantasy VII* is, apart from the transition into a 3D environment, similar to the one in the previous *Final Fantasy*. The game takes advantage of innovations made in earlier games of the series, like the ATB system developed for *Final Fantasy II/IV* and the job system first used in *Final Fantasy V*. There were of course also several innovations made for *Final Fantasy VII*, among the most impressive ones is a technique that minimizes the added load time caused by using the CD-ROM format, sometimes eliminating them completely. Like the highly acclaimed soundtrack for the previous *Final Fantasy*, the score for the seventh installment was composed by Nobuo Uematsu who has become one of the industry’s best-known composers.



Figure 38. Final Fantasy VII

4.3 Pokémon

A good example of the different approach to RPGs in Japan is *Pokémon*, a whole media franchise build around the *Pokémon* games, consisting of movies, animated TV-series, trading cards, toys, books and other media. The *Pokémon* franchise is second only to Nintendo's *Mario* series in financial success.

The first *Pokémon* game came in the form of a pair of interlinkable CRPGs for the Game Boy in 1996. The game concept is built around collecting and training pocket monsters or “Pokémon” from which the name of the franchise stems. The concept has not really changed from the first *Pokémon* game although over twenty games belonging to the series have been released. Bearing this in mind, Pokémon is an example of re-using the same game concept with minor changes successfully in several games, as *Pokémon* has done for over a decade.

Although the games clearly feature elements of CRPG, in that they the player levels up his character and interacts with NPCs, they seem to revolve more around the concept of collecting. The exploration mode in the game boils down to a framework offered for collecting Pokémon, which are later used in combat against other Pokémon trainers (shown in figure 39). Indeed, the executive producer for *Pokémon*, Satoshi Tajiri-Oniwa, explains in an article for Time magazine (Larimer 1999) that the game concept is inspired by the hobby of collecting insects.



Figure 39. *Pokémon Emerald* (2005). Left: Battle screen featuring different Pokémon. Right: exploration screen.

Without going into details about the game mechanics, it's suffices to say that *Pokémon* is a good representation of the differing approaches towards CRPGs in the west and east. It also hints at the convergence seen in CRPGs with other genres.

5 CONCLUSIONS

5.1 The historical role of the developer

The role of the developer has undergone significant changes from the early days of CRPGs. Beginning as small enterprises worked on as a hobby in the early 1980s, the CRPG industry today has grown into something resembling the movie industry, with big companies developing massive franchises. Likewise the independent scene in games can be likened to the one in movies. The developer, like the movie production team in independent productions, is limited to doing small-scale projects as the resources

needed and the varying areas of expertise required to develop a modern games have both dramatically grown with time.

This limit can however transcended in independent game production by the utilization of established game engines - like the Unreal 3 Engine for a 3D used in Mass Effect. Using ready-made game engine will significantly lower production costs, since no separate 3D engine has to be made for the game.

5.2 The trend towards on-line gaming and MMORPGs

A clear trend seen in CRPG games being developed today is the tendency towards massively multi-player on-line gaming. A closer look at *World of Warcraft* reveals one of the clear reasons behind going multi-player: the game already boasted 7 million subscribers as of 2007 (Barton 2008) all contributing to a massive monthly revenue flow for Blizzard as one player pays around \$15 per month.

However, the nature of MMORPGs is firmly rooted in the multi-player as aspect of gaming. As determined in the introduction, the nature of MMORPGs relies on the social aspect of the game more than on interaction with the game world. In single-player CRPGs the opposite is true: a single-player CRPG is only fun if the game in itself is fun. Thus the criteria for a good CRPG are very different from the ones for a MMORPG.

5.3 The future of single-player CRPGs

Generally MMORPGs can get away with features that would be heavily criticized in CRPGs, such as cheesy storylines and dull NPCs. Conversely CRPGs concentrated on simple hack 'n slash-type gameplay are a fading trend, which is hardly surprising as MMORPGs are capable of doing the same thing much better. Thus one of the aspects of single-player CRPGs, the emphasis on a captivating setting and dramatic storylines im-

portant for the gaming experience of a single player, cannot be accomplished in the MMORPG game setting.

While this formula of emphasizing the dramatic intensity of a well-built storyline is encountered in many JRPGs, many of the western game developers are using it as well. *Mass Effect* and the *Elder Scrolls* series are good examples of western games that rely heavily on single-player aspects of the game, and the development of the next installment in both series is a testament to the single-player CRPG being far from dead.

Another aspect featured in single-player CRPGs throughout history is the one of turn-based combat. Whereas real-time combat is far more exciting with real human enemies and team-mates, turn-based combat offers an emphasis on strategy that modern MMORPGs cannot offer.

One way to approach the situation from a single-player game viewpoint, is a blend between single-player games and MMORPGs elements. This approach is exemplified by the new *Neverwinter* game in development. An article from IGN.com (IGN 2011) speculates around the features of the new game:

Since Cryptic is primarily know for MMOs like *Star Trek Online* and *Champions Online*, it's reasonable to assume *Neverwinter* might also fall within the same category. From what's been said so far, it sounds more like an action-RPG with MMO-like elements built in. There will be an auction house, for instance, a bank, and open spaces within *Neverwinter* to wander around and interact with others. A majority of the content, though, is more straightforward and follows along with a story.

5.4 Convergence with other genres

Another significant trend is the convergence of CRPGs with other genres. This is seen in for example *Mass Effect* which is a cross between a shooter and a CRPG, and games like *Fable* and the games in the *Zelda* series that have strong action game influences.

5.5 New ways to distribute independent games

One aspect that seems to favor the independent game developer is the appearance of new ways to distribute games. The PlayStation-network and Xbox Live feature markets for games developed by independent game developers, using licenses provided by Sony

and Microsoft. A similar market is available for apps developed for mobile devices such as the iPhone and Android-phones.

These new ways to distribute games do not require a distribution network and as such offer relatively effortless ways to get the game to the end-users. However, like traditional ways of distribution, gamers need to be able to find the game – for which some sort of hype regarding the game is needed. A good example of the utilization of Apple’s “App Store” is seen with the release of *Shadow Cities*, a Finnish mobile game with MMORPG elements, featuring the use of geo-location as a basis for the game.

5.6 Possible future roles of the independent developers

One possibility for future CRPG development is to continue evolving into something like current movie production: a few massive global franchises that are made by big game studios with no role for the indie developer. Based on the history of CRPG development this trend can be expected to continue.

Another possibility is that the above happens but there is still a role for the independent developer in several niche markets, like the PlayStation Network, Xbox Live and mobile app marketplaces, where at least some indie developers have the possibility to make a comfortable living from game development.

Low powered mobile games offer a third possibility where the history of game development plays out a second time and where a basic text-based user experience and very basic graphic games could again play a significant role on the way to more powerful mobile platforms.

A fourth possibility is that elements of CRPGs, virtual worlds, action games, and social networking all blend together to form a social meta-verse which uses the open game world concept to for example open a shop, effectively playing an in-character trading game. This possibility will develop interesting multipurpose second lives for the in-game marketing of games.

6 GLOSSARY

Alignment

In role-playing terms, alignment refers to the moral and ethical categorization of a character. Different systems of alignments are used in different games.

Auto-mapping

An integral part of the first CRPGs was the mapping of the explored dungeons. Later games would feature automatic mapping done by the computer, eliminating the need for players to physically map the dungeons on paper.

CRPG

CRPG is an acronym for Computer Role-Playing Games and refers to computer or video games of the role-playing genre.

Cutscenes

A cutscene is a sequence over which the player has no or only limited control. Often breaking up the gameplay and used to present character development, advance the plot, and provide atmosphere, dialogue, and general background information. Cutscenes can use the game-engine, be animated or use live action footage.

Cutscenes could also be interpreted as in-game movies and are sometimes referred to as cinematics. Cutscenes that are streamed from a video file are also referred to as full motion video or FMV in this study.

Isometric

Isometric projection is a form of axonometric projection, which in other words is a way to represent a three dimensional game world on a two dimensional screen. In axonometric projection objects are presented at an angle. As objects remain a fixed size while moving about the game field, axonometric projection eliminates the need to scale the graphics in order to simulate visual perspective. The calculations needed to scale graphics in a fashion that simulates perspective are quite complicated, and require much more

processing power. This is why variations of axonometric projection are often used in systems with less CPU/GPU power.

As computing power increased both on the home computer- and console-front, more and more systems games have started utilizing the possibility of a true 3D environment. While this has led to a decline in the use of axonometric projection in games on home-systems, the limited power of mobile platforms and web-based games have led to a renaissance in the use of axonometric projection.

JRPG

JRPG is an acronym for Japanese Role-Playing Games, and is used to refer to CRPGs developed in Japan.

MMORPG

MMORPG is an acronym for Massively Multiplayer On-line Role-Playing Games. As the name suggests, these games are played online and participated in by a very large amount of players at the same time. The most popular and influential MMORPG to date is Blizzard's *World of Warcraft*.

NPC

NPC is short for non-player character, and is used to refer to any character in a game that is not the player.

Platforms

The term "platform" refers to the system on which a piece of software is meant to be used. Significant platforms mentioned in this study include:

- The Magnavox Odyssey (1972), the first home gaming console.
- The Atari VCS/2600 (1977), the first best-seller home gaming console.
- The Apple II (1977), the Sinclair ZX Spectrum (1982), the Commodore 64 (1982), the Atari ST (1985) and the Commodore Amiga (1985), some of the most popular early pre-PC home computers.
- The Nintendo Entertainment System (1983), or NES, Nintendo's 8-bit game console.

- The Super Nintendo Entertainment System (1990), or SNES, Nintendo's 16-bit game console.
- The Nintendo 64 (1996), Nintendo's 64-bit game console.
- The Sony PlayStation (1995), Sony's first game console and one of the first consoles to use the CD-ROM technology
- The Sony Playstation 2 (2000) & 3 (2006), later generations of the PlayStation.
- The Xbox (2001) & Xbox 360 (2005), game consoles manufactured and distributed by Microsoft.

Procedurally generated content

Procedurally generated content, as opposed to purely randomly generated content, is content which is produced by the game itself, based on algorithms. While purely random content could produce for instance dungeons with no exits, procedurally generated dungeons had algorithms that made sure the dungeons were logical.

Ranged combat

Ranged combat, as opposed to melee combat, covers the use of ranged weapons such as bows and guns.

Sandbox style gameplay

Sandbox style gameplay is a game design concept which allows the player total freedom to explore and interact with the game world however he chooses. While many sandbox style games feature a story, the game doesn't force the player to take part in that story, as there is no right or wrong way to play a sandbox style game.

Wireframe

Wireframe-graphics are polygonal 3D graphics that do not use textures to cover the polygonal shapes. Early computers didn't have the capability to render textures, and only the frames of the objects were left, as shown in figure 40.

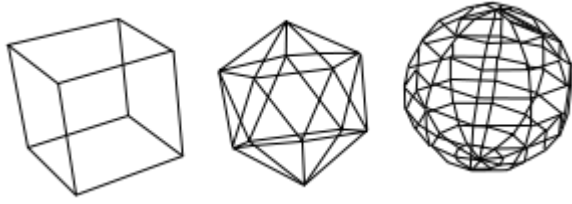


Figure 40. An example of wireframe graphics

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