GoldenEye: The Quest to Re-Invent the Video Game Standard.

By Meghan Flannery

In my middle and early high school years, school social events were mostly dances, basketball games, and parties. By the time I was graduating from high school however, GoldenEye tournaments had become a standard all-school social event. The school would provide the televisions, and various students would donate the use of their Nintendo 64 systems, and a single elimination tournament would ensue until only the ultimate player was left standing. A video game had propelled itself and its genre of entertainment from the realms of social inadequacy into the social norm of teenage society. Suddenly everyone was playing the game, talking about the game, and integrating the language of the game into the teenage vernacular with a furry that conjured up images of Mario in 1989. Consequently, every console game released after GoldenEye was compared to it. What was it about this game that redefined the console game standard?

The success of GoldenEye as a video game was parallel to the success of its movie counterparts. Beginning with Dr. No in 1962, the James Bond films set the standard for action movies. The actors and actresses never won Oscars for their performances in the series, and the films never won awards for special effects, and yet it became the most successful film series in movie history. The film series succeeded because it appealed to a wide variety of audiences, combined action with suspense, drama, and romance, and had a high entertainment value. The movies were also extremely well marketed. Similarly, GoldenEye set the standard for first-person shooter video games. At the time of its release, it was not the most technologically advanced video game on the market. Nonetheless, significant advances in console graphics, graphic realism, ease of playability, well-developed characters and storyline, and options within the game combined with good marketing to create a highly anticipated game with an overall package that was second to none. More importantly, GoldenEye appealed to every kind of gamer and attracted new people to the gaming world.

Setting the Stage

When Nintendo launched the N64 on September 29th, 1996, the video game industry wasn't expecting much (Nintendo). The Sega Saturn had failed, and sales of the Sony Playstation were good, so critics did not expect consumers to purchase another more expensive console. However, the N64 sold 300,000 copies in three days, capturing 61% of the market, and making the N64 launch the most successful in console history (Lycos). There were two main factors that lead to the initial success of the system: the technological advances of the system and clever marketing.

Nintendo turned to Silicon Graphics (SGI), who had arguably the best graphics capability at the time as seen in Jurassic Park and Terminator 2, for the design of the hardware (Nintendo). SGI in turn, used its Onyx workstations as models for the system.

The N64 had some impressive numbers for its time. It came before 3D acceleration was popular on the PC, a fact that makes the system seem even more impressive. Some of the specs include a 64-bit MIPS R4300 RISC CPU at 93.75 MHz, 64-bit RISC graphics co-processor at 62.5 MHz and 4 MB of DRAM at 500 MHz (Lycos). The N64 is also capable of calculating 160,000 rectangular polygons per second (Louderback, 134). Unlike the Onyx workstations however, the N64 had space limitations imposed by the use of cartridges. This means that textures are generally smaller than usual. Furthermore, the game then stretches the texture to make it larger in the game, creating the occasionally blurred image. Although these hardware components far surpassed the Sega Saturn released just prior to the N64, the Sony Playstation was capable of calculating 360,000 rectangular polygons per second and didn't have the memory limitations of the cartridge (Lycos). Overall though, the N64 system had an impressive array of graphics and processing capabilities.

Undoubtedly aware of its technical inferiorities, Nintendo seemed to believe that success could be found with a superior user interface. The N64 included important non-graphical upgrades to its predecessor the Super Nintendo System. It added two extra ports so that up to four people could play simultaneously on selected games. Nintendo also created many novel extras for the game. For example, the Rumble Pak was one of Nintendo's first add-ons. The Rumble Pak shook the controller whenever the player's

character was shot, hit, or ran into things (Nintendo). It added a dimension of realism to the game, making events on the screen both a tangible and visual experience. The newly designed controller was also an upgrade. The analog controller included a mini joystick that provided 360 degrees of movement, and six buttons to allow more complex actions and greater degrees of control for the player.

Although the Sony Playstation demonstrated better graphics capability than the N64, Nintendo's launch was more successful due to clever marketing. Released at the beginning of the Christmas shopping season in 1996, the N64 was three months late to the US market (Lycos). However, Nintendo used those three months to inundate the consumer with advertising; Nintendo budgeted $100 million for the N64 campaign (Sheff, 244). The hype generated from the advertising for both the system and the Super Mario game that would be sold with it led to the phenomenon known as FUD. FUD stands for fear, uncertainty, and doubt, and was a strategy employed by a company to prevent consumers from buying a competitors product before they get a chance to release their own (Littlejohn, 7). Simply put, Nintendo's advertising campaign attempted to convince the consumer that their

product was worth waiting for, or at the very least, they should wait until all three consoles were available before making a decision.

The extensive advertising and marketing strategy of including a highly anticipated game with the system boosted initial sales. However, the continued success of the system relied on the development of an exciting and desirable library of games. Sony had worked hard during the development of the Playstation to obtain as many licenses as possible for its games from such associations and movies as the NBA, NASCAR, NHL, Looney Toons, Batman, Spiderman, Tetris, and Top Gun (Playstation). Nintendo however, decided to establish a "dream team" of developers to build its software library, placing its hopes in better games, rather than flashy names. Among the many developers who competed to create games for N64 was the team from Rare Ltd.

The History of the GoldenEye Creators

Rare Ltd is a British Company started in the mid-1970's by two brothers converting Space Invader Arcade boards (Rareware). Tim and Chris Stamper had their first real success with Sinclair machines under a company called Ultimate, followed by the release of Jetpac in 1983 that sold 300,000 machines in the UK (Rareware). Between 1983 and 1986 they released 14 hit games, including Knight Lore (that included Filmation, a pioneering concept in isometric 3D) and Alien, one of the all-time 8 bit classics (Rareware). Ultimate also made games for Commodore 64, but with the release of NES outside of Japan in 1987, Ultimate lost much of its market.

Out of the ashes of Ultimate a new company emerged: Rare Ltd. Rare decided to embrace the new technology and direction of the video game market that had driven Ultimate out of business (Rareware). The design team worked hard to put together a couple games that they sent to Nintendo president Minoru Arakawa. Arakawa was impressed with what he saw, and Rare was given the go ahead to make games for the original Nintendo Entertainment System (NES). They produced Marble Madness, Pro-Am, and Battletoads up until the release of the Super Nintendo System (SNES) (Rareware).

Rare then switched gears and worked on a reliable method of translating hi-resolution workstation graphics to SNES (Rareware). The company released only a handful of games during this period, but they decided that it was more important to understand new technology and stay on the cutting edge of innovation, rather than sloppily carry old games onto a new system. The perseverance paid off, and Rare's next title Donkey Kong Country became the biggest 16-bit title of all time, selling over 8 million copies since November 1994 (Rareware). Nintendo was so impressed with the success of games such as Donkey Kong Country and Killer Instinct, and with Rare's ability to create popular games across many different game genres, that they honored Rare with the first fiscal partnership that they had ever undertaken with a company outside Japan. Nintendo bought up a 25% share of Rare Ltd in 1994 (Rareware).

Creating the Game

The history of a successful partnership put the design team at Rare at the top of Nintendo's list of developers to help them create the N64 game library. Development of the game started in 1994, before the movie was released to theatres. Starting with the original script, an unedited version of the film, and the basic understanding of the new

capabilities of the Nintendo console, the Rare team set to work on developing the game (Rareware). The team consisted of project leader Martin Hollis, graphics gurus Karl Hilton and B. Jones, programmers Mark Edmonds and Steve Ellis, design members Duncan Botwood and Dave Doa, head of sound Graeme Norgate, who collaborated with Robin Beanland and Grant Kirkhope to do the music (Moby).
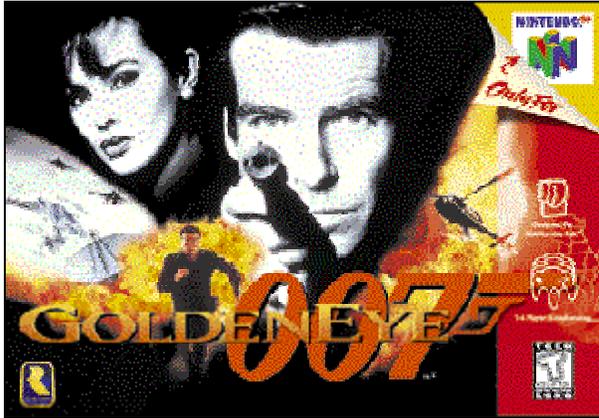
The storyline of the game and style of game play was copied directly from the movie. The Rare design team "watched the film an average of 5 times each, and referred to it very frequently" as they were creating the game (Rareware). The player's name is Bond…James Bond, a 007 secret agent working for MI6. James Bond's main goal is to stop the Janus Organization from firing a device, called the GoldenEye, upon England. If the Janus Organization succeeds, it will destroy all computer and electronic records and erase the evidence of an enormous and illegal electronic money transfer it is planning on making.

For Bond to succeed, he must find out who has stolen the GoldenEye, what they are planning on doing with it, and destroy the satellite that controls it. He embarks on a series of intelligence gathering missions that include inspecting the destroyed satellite in Severnaya, and meeting with Valentin in St. Petersburg, and planting a tracking device on a helicopter. Along the way Bond meets up with beautiful Severnaya programmer Natalya Simonova, who is his companion and partner for the rest of the mission. Together they must assimilate the information from carious sources, and complete the mission. They discover that Bond's old friend and partner Alec Trevelyan, is the head of Janus and then track Alec to his base on a train, and finally to Cuba where they destroy the GoldenEye satellite and kill Trevelyan.

The game and the movie begin and end exactly the same: beginning with Bond's bungee jump, and ending with the destruction of the satellite. In-between there are some differences, as not all of the scenes from the movie included enough action and objectives to sustain a level. However, overall the missions of the player duplicate the missions of Goldeneye the movie.

Although the movie script dictated the storyline and characters of the game, the creative minds and raw ability of the Rare team determined the rest. The original expectations of the Rare team for the game and the general direction of the game changed throughout production. "We were expecting to finish the game in a far shorter time, for a start" said one member of the design team, "as it was originally going to be a kind of *Time Crisis* shooter on rails, then the project snowballed a bit, took a bit longer, got a bit more ambitious as more of the N64's features were exploited" (Rareware). The game was intended to be a SNES game, however the arrival of the N64 allowed GoldenEye to leap to the next generation of gaming. From the onset the team intended the game to be a cut

above all other first-person shooter games on the market. They had three initial goals they wanted to achieve in the game: more realistic graphics, better computer artificial intelligence, and an element of intelligence in the mission.

The duo of Hilton and Doa attacked the first objective: more realistic graphics. The closer the environment of the game mimicked the sets of the movie, the more realistic the playing experience would be for the player. When the game upgraded to the N64 platform, the game engine evolved to provide a fully 3D free-roaming environment, allowing for the cinematic experience to be recreated as closely as possible (Rareware). The hardware on the N64 also processed graphics in small rectangular polygon blocks (160,000 per second) so it made sense to build the game graphics in polygon blocks. Translating objects, particularly buildings and large trucks, into realistic counterparts in the games wasn't nearly as difficult as reconstructing the faces of actors and actresses, nor as fun as creating the faces of the "enemy." Rare chose to use the faces of the team members as inspiration for the soldiers. Some faces were considered "far too attractive to be exposed to the world uncensored," and therefore have un-subtly altered versions of themselves also (Rareware).

The second goal of achieving improved computer artificial intelligence (AI) manifested itself in many parts of the game. For example, there are thirty different animation routines for soldiers who are shot or blown up, depending on how and where they get hit (Videogames.gamespot). Also, for the first time ever in a first-person shooter game, where a character is shot determines how much life they lose (as opposed to how many times they are hit). Therefore, much like real life, if Bond shots a soldier in the leg, he doesn't die immediately. In fact, Bond has to shoot a soldier five times in any of the appendages before he will die. Yet, if Bond snipes a soldier in the head, he dies immediately. The same rules apply to Bond himself. The soldiers not only "feel" pain, but "hear" as well. When Bond shoots with his trusted PP7 with silencer, guards around the corner cannot hear him, but if Bond mows down a guard with an AK-47 assault rifle, guards down the hall coming running to see what is going on. Finally, when Bond fires and misses an opponent, the bullet lodges itself in the wall, creating a bullet hole. The holes remain in the wall or door until the level is reset.

The first two goals were technological improvements, but the third was adding an element of intrigue to a genre that had been previously dominated by violent aggression. In fact, the Rare team intended to design the game such that a destructive approach to a level would ensure failure, much like the actual exploits of a spy. Including mission objectives for every level that required completion in a specific order forced the player to explore the entire level with caution. More importantly though, the AI features of "feeling" and "hearing" for the soldiers in the game rewarded Bond for stealing through a level as quickly and craftily as possible. This not only encouraged the player to shoot accurately and with less predatory weaponry so as to attract as little attention as possible, but also added a sense of realism to the game. "Real-life" spies gather intelligence through complicated scams, or by sneaking in and out without being seen, not by walking

into an intelligence command center and killing everyone there. Also, mindlessly blowing things up could cost the player the mission if certain scientists or computer consoles were destroyed in the mayhem. Plus, limits on the amount of ammunition Bond can carry discouraged any attempts to try and fire ones way though a level, as constant shooting would attract an endless supply of soldiers, and Bond wouldn't have an endless supply of bullets.

The Rare team also added levels of difficulty to the game. A player could be an agent, secret agent, or double agent, with the latter of the choices being the most intense, complicated and challenging single player option. The levels appear the same, but Bond would have more objectives, encounter more soldiers, and have less time to complete the level. As another option, the programming team added a series of rewards for players who completed a mission within a certain time span. Whereas most games have cheats, "The team believed that 'rewards' were better than 'cheats'; this dovetailed nicely with the need to emphasize the different style of game-play in the single-player game" (Rareware).

Finally, in what proved to be a defining feature of the game, the designers added a multi-player mode. Multi-player games were certainly not new to the gaming industry, but the GoldenEye deathmatch feature, as it was called, allowed the players to stalk each other. So unlike racing games where many players compete at the same time to complete an objective, the deathmatch placed up to four players on one of the levels from the single player game, allowed them to chose their weapons, and then left them to compete against each other. Here, players could hone their shooting skills, learn the intricacies of a level, and play with their friends at the same time.

The final result was "a beautiful game" raves one critic. "The characters look lifelike, the scenery lush, and the explosions are to die for"(Ready, 2) In general, GoldenEye received only the highest acclaim from its critics: "This is a game that sucks every bit of the Nintendo's potential from the processor," exclaimed one reviewer (game-revolution). These great reviews converted into dollar signs, as the game became the number one selling game during the 1996 Christmas season.

Setting the New Standard

GoldenEye was an instant success. The realistic movie-like experience created by the graphics, coupled with the improved computer artificial intelligence, and the challenging mission objectives made the game a "must-have" for many gamers. These gamers were mostly people already exposed to the industry and interested in the genre of first-person shooters (fps). What set GoldenEye apart from other games, was its ability to appeal to groups beyond the current gamers: the casual gamers, and the previously non-gamers. It was the juxtaposition of these two aspects of the game that propelled GoldenEye and its genre of entertainment into the social norm.

As for any industry, the foremost objective of the video game industry is to continue to create products that meet the needs of its consumer base. The nature of any technology-based industry requires that every new product, or system, or game be bigger, better, and continue to meet or surpass expectations. The consumer base, known as hardcore gamers, is very fickle, moving from game to game as they defeat them. Their interest is held only as long as the game continues to challenge them. They are

nonetheless, an important group to appease, as they are usually the first group to purchase a game, and their subsequent evaluations of the game will effect how sales continue after the initial release. GoldenEye raised the standards of this group of consumers, known as hardcore gamers, for an fps game by technologically trumping other systems, and by presenting them with a new kind of challenge.

Hardcore gamers were very impressed with GoldenEye. Tournaments sprung up, and even a National GoldenEye Players Association formed at GoldenEyeForever.com. Players competed to see who could finish a board the fastest, and who achieved the twenty-three rewards first. The gamers were critical about certain aspects, including the fact that dialogue appeared on the screen rather than being spoken, but overall found the game to be every bit as challenging as they anticipated.

While it is difficult to capture the respect and accolades of hardcore gamers, it is more difficult to create a game that appeals to both the casual and hardcore gamers. The two groups have extremely different expectations. The hardcore gamer plays "for the exhilaration of defeating the game" (Adams, 2). They are more "tolerant of frustration" in their quest to overcome an obstacle, and constantly seek greater and greater obstacles to overcome. In contrast, the casual gamer "plays for the sheer enjoyment of playing the game" (Adams, 3). The most important part of the game is the entertainment, and if "the game ever stops being enjoyable or becomes frustrating, the casual gamer will stop playing" (Adams, 4).

The three game-play levels of agent, secret agent, and double agent, along with the deathmatch mode of GoldenEye appealed to both kinds of gamer. The intricacies and rewards of the double agent mode challenged the hardcore gamer, while the high entertainment value of the agent level and deathmatch mode maintained the interest of the casual gamer. More importantly, the two could meet in deathmatch mode, and by adjusting the handicap settings or choosing appropriate teams, the hardcore gamer would not be guaranteed a lopsided win. This aspect is important in maintaining the interest of the casual gamer. If he/she is required to practice constantly to be competitive, he/she won't compete.

What really set GoldenEye apart from other games was the interest that it created in circles of non-gamers. An important part of that recognition must be given to the game's license. The success of the GoldenEye film meant that many people knew the plot of the game and the general mission objectives and character names. The game itself succeeded in providing two things: large amounts of positive gossip about the game by impressing the hardcore and casual gamers, and a medium that allowed new players to ease into the game: the deathmatch mode.

It is impossible to underestimate the power of word-of-mouth. The influence of peer pressure and social acceptance often make or break a product, especially one that is aimed at a mostly teenage population. The teenage population spends more money in the

entertainment industry than any other age demographic, and harnessing that spending power is a profitable venture. By impressing the hardcore and casual gamers, GoldenEye assured it a place in the gossip circles of schools, and therefore came to the attention of many other teenagers who otherwise wouldn't have heard of the game.

The deathmatch made playing a video game a social, rather than stereotypically anti-social activity. Up to four players could play in teams or as individuals, and the matches could be limited to a small number of kills so as to allow other players waiting to jump in the game usually in place of whoever finished fourth. More importantly, the newly designed, easy to use controllers made the learning curve very small so a new player could pick up the basics quickly and start enjoying the game. The fact that the story line of the game was introduced by 17 films over 40 years and exactly mimicked the last movie, meant that a new player didn't require a synopsis of the characters, plot, or mission objectives. They already had a basic understanding of the game before they started playing. Also, the deathmatch mode made it possible for players of all different levels to play together, so a new player wouldn't be as nervous or anxious to join his/her friends in a game when they themselves were inexperienced. Suddenly a video game could be a party activity, and players of different skills could excel at different parts. Many different boards and weapons choices meant that friends could specialize in particular settings they knew well and eliminate the monotony of one person dominating everything. More than one person could be a champion at this game, thereby encouraging more people to play it.

The huge success of the game was ultimately due to the sheer simplicity and yet unbounded opportunity to improve your skill at the multiplayer mode. The mass appeal was that anyone familiar with using a controller could quickly understand how to play and for the first time all four players were from first person perspectives. Different options such as weapons dictated different strategies for attacking your fellow multiplayers. Experienced players began to be familiar with entire boards and knew where to set traps, and where to find their enemies by looking at the other screens. Yet, inexperienced players could still play with experienced players when the game handicaps were imposed, or appropriate teams were chosen. While superficially simple to play, the sense of competition it appealed to was closer to a test of who can be craftier, rather than who is the most coordinated. Anyone with experience will also tell you that multiplayer mode is exciting enough to entertain a crowd. Simply by watching a better player, one can pickup moves, learn where to set traps and generally be entertained by the characteristically boisterous matches.

This game appealed to nearly every type of gamer, and with the new social dynamic it reached new gamers. No longer did the game require hours of working at one board to gain a sense of accomplishment or satisfaction. The two to four player death

matches were as short or long as you like and also immediately rewarding. Multiplayer offered a fresh perspective on the game, while allowing the players to continue to hone their shooting and basic maneuvering skills so that they could take a break from the single player game while continuing to practice at it. Also, once a player reached the end of the one player story line, the game wasn't discarded. There were rewards to collect, times to beat, and every deathmatch was a different game waiting to be played. The replay value of the game was immense. GoldenEye had set a new standard for a video game, and subsequently propelled itself and the video game industry to a new level. When asked how the success of GoldenEye had affected them, the team from Rare replied sarcastically "everyone hates us now" (Rareware). The announcement earlier this year that the video games surpassed film to become the most profitable entertainment industry in the United States seems to suggest that in fact, everyone loves them now.

Bibliography

1. Adams, Ernest. "Designer's Notebook: Casual Versus Core" Gamastra, August 1, 2000. http://www.gamasutra.com/features/20000801/adams_01.htm
2. Browder, Seanna; Brull, Steven; Reinhardt, Andy; "Nintendo: at the top of its game." Business Week, n3530; June 9, 1997: 72
3. Louderback, Jim; "Plumber Mario gets the job done, even at work. (Nintendo 64 video-game system showcases technology that will be used in future PCs)" PC Week v13, n42; Oct 21, 1996:133
4. Littlejohn, Randy. "The Need to Adapt the Tools of Drama to Interactive Storytelling." Gamasutra, September 14th, 2001. http://www.gamasutra.com/resource_guide/20011119/meretzky_01.htm
5. Morgenstern, Steve; "Technology: have a blast with these new first-person shooter games." Rolling Stone, n759; May 1, 1997: 62
6. Ready, Will. "GoldenEye 007 on the Nintendo 64" http://www.roydburn.com/007/rares-goldeneye-007.html.
7. Sheff, David; Game Over: Press Start to Continue. Game Press, Wilton, CT; 1999
8. White, Ron; "Action and strategy." PC/Computing v10, n12; Dec, 1997:317
9. www.rareware.com ; Rare Ltd. Website (including published online interview with the GoldenEye design team)
10. http://www.playstation.com
11. http://www.lycos.com
12. http://www.mobygames.com/game/sheet/gameId,3528/ ; Moby website
13. http://www.nintendo.com/games/gamepage/gamepage_main.jsp?gameId=121&showMe=1 ; Nintendo's GoldenEye website.
14. http://videogames.gamespot.com/features/n64/goldeneye/
15. http://www.game-revolution.com/games/n64/goldeneye.htm ; GoldenEye review

http://videogames.about.com/library/weekly/aa020200a.htm; online article