Online Gaming

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Abstract: Computer gaming is a medium by which we can entertain ourselves, a medium that has expanded to the online worldwide market as part as globalization. The growth of online gaming has close ties with the use of broadband, as a good online gaming experience requires a broadband connection. Through online gaming, people can play and communicate with each other freely in almost any country, at any given time. This paper examines the phenomenon of online gaming.

Key words: Online gaming

INTRODUCTION

With the advent of the ARPANET and the development of TELNEX (1971), e-mail gaming became popular. The use of e-mail to play games over the network was borrowed from 'playing-by-post' which was popular before the advent of widespread internet usage [1]. The engine that was developed and used was the MUD's (Multi-User Dungeon). This was the use of a server program that users logged into to play the game based on a maze or rooms. Clients ran with telnet or other text programs to connect. MUD's are still alive on the internet although they were developed before the advent of the World Wide Web [2]. Online games have advanced and evolved from these text based systems, into graphical displays and, finally, persistent online worlds in which customers are citizens and make a difference just as they do in the real world. Lately there have been a lot of moves to give more people opportunities to play online than before. The console has been a popular way to play off line for a large number of years and console manufacturers have taken note how people have been using the internet to play. This, combined with the uptake of broadband by large percentage of home users has led to a growth in console owners buying newer versions that support online gaming opportunities.

Towards the end of the nineties, online games began to catch on and reach greater heights with the introduction of First Person Shooter (FPS) games, such as 'Counterstrike' and 'Quake III Arena' to the online market. In these games players could roam freely about levels/arenas in *real-time* either mindlessly killing (or as it later became known as *'fragging'*) each other or, form teams and play tactical war games such as *'capture the flag'*. Along with the arrival of this format online facilities, such as 'MPlayer' were created so that players could set up online accounts and run their own competitions with the rest of the world in a giant free-

for-all, or lock the entrances to the areas in which they play as simply play amongst a selected group of people. Online accounts like MPlayer also adapted their formats to suit other forms of online gaming which were now becoming popular. One of their most innovative changes came with the arrival of the PC's intergalactic squad based piloting game, 'Freespace'. It was similar to the older versions in the way players could set up, open and lock their games from other users but now they could do much more. Facilities were created for players (pilots) that had no teams so that they could speak and get to know other teams or team-less pilots on the network, prove themselves to them and test others forming new and bigger teams. They also set up areas for experienced pilots, whose team may not have been playing at the time, so that they could hire themselves out as mercenaries to the team who would bid the highest number of points for their services, allowing the mercenary pilot to play any time without his/her team and gain valuable experience points [3].

One of the latest exciting genres to emerge from the depths of online gaming is online *'Role Playing Games'* (RPG). In games such as Sega's *'Phantasy Star Online'*, vast worlds were created for thousands of Dreamcast users to interact with each other, fight side by side and follow well laid out storylines. Sega's Dreamcast was the first games console to attempt online gaming but did so long before its time and subsequently failed, as the technology was not there to support smooth game play and maintain its high quality graphics through a regular 56k modem. The world was not yet ready for the introduction of online console gaming. Sega may have failed at their attempt but the genre flourished in the PC market with such titles as 'Everquest' and 'Star Wars: Galaxies'. These RPG titles attracted massive amounts of players to the online games market and soon became known as *'Massively Multiplayer Online Role Playing Games'* (MMORPG)

or *'Persistent World'* games. They were dubbed this title because of the principal that it is never off, i.e.- somewhere in the world, someone is logged into the game meaning that it is continuously on and being played. These and other similar titles, formed huge fan bases all over the world and the number of online game users grew as, by this time, almost every game genre could be played online. The technological advances in communications networks today have resulted in broadband – high speed, uninterrupted internet access, at lower and lower costs has also boosted the popularity of these games. Companies such as Sony and Microsoft have learned from Sega's mistakes and rectified the problems it had and they have now paved the way for today's online console games. In 2002, Sony and LucasArts released one of the most avidly anticipated online games ever: Star Wars: Galaxies. What sets Galaxies apart is that this massively multiplayer game was shaped not only by company developers but also by the legions of Star Wars fans out there. The game Web site has FAQs, developer forums and had advanced looks at the game for players to discuss and post comments. An example of innovate features in online gaming is in *FIFA 2004 w*here there is a facility for players so that they can, not only, play *as* a team in an online match/championship, but they can play *in* a team as one player and having their friends make up the rest of the team. This does however provide one problem -no one ever wants to be in goal…. [4, 5].

Gaming Consoles: The most obvious advantage consoles have over PCs is cost. The Xbox currently sells for around £100, often with a couple games in the bundle, while it's easy to spend that much or more on a quality PC video card alone. The second most obvious advantage is simplicity. Let's face it, PC gaming is a technical nightmare compared to console gaming. People can actually take a console home and be playing a game within minutes. No operating systems to configure or drivers to update and better still, no purchasing a game only to find out that it isn't compatible with your PC for some incomprehensible reason. Multiplayer gaming is also made easy and affordable with companies like Microsoft offering online services for their product. The Xbox, for example, comes equipped with a network card, making it a simple matter to hook it up to a DSL or Cable Internet connection and get into a multiplayer game on the outstanding Xbox Live. Many people prefer to play games sitting on the couch, or they want to play with friends in the same room. While these things are possible on a PC, consoles are extremely well suited for this right out of the box [5].

The 3 main players - PlayStation 2 (PS2), Xbox and GameCube have all introduced online capability. Online console gaming is extremely appealing to an enormous number of people already. At the moment the PS2 and the Xbox are getting quite competitive in this

area. Xbox Live is currently a little ahead on multiplayer titles and offers a great player matching service complete with voice chat. Sony released several big online titles for the PS2 and the last, *Need for Speed Underground*, became the first genuinely cross-platform game, allowing PC users and PS2 users to race against each other. This is another factor that has shaped the future of online gaming because gamers can now chose their best platform for which to play the game of their choice. Although the Xbox and PS2 share games and their publishers, the Xbox still has had a head start in the online market with Xbox Live. Even with that head start on Sony, the Xbox is still the less successful of the two, at least in terms of number of units sold. This is where Microsoft have attempted to change things by signing exclusive rights to the most successful online First Person Shooter (FPS) – Counterstrike. This reawakened people's interest in this classic shooter (and the most successful FPS of all time) with its smooth game play, excellent graphics and, most importantly, the ability to run smoothly over Xbox Live's broadband connection.

It isn't just faster connections such as broadband that have increased the enjoyment of playing online, it may have helped immensely but the hardware for PCs and consoles is also a contributing factor in this equation of growing popularity. One such device is the headset used in both PCs and consoles for communication, this in particular has made today's gaming experience a lot more sociable for users. With this conversations can now be carried out easily between team mates in squad-based was games like 'SOCOM: U.S. Navy Seals' and friendly banter can be slung at apposing forces in competitive games like SSX3 far more effectually than in PC games of the past. At last, gamers can really say what they mean, in real time. Congratulating someone can be voiced a bit better than '*gg*' (good game mate). There is a distinct lack of inter-connectivity between the different console brands. Many games are available for one type of console but not others and when it comes to online play, each is typically restricted to its own network. This means that people with Xboxes can only play against other people with Xboxes, so, for example, there is no way for console gamers to jump into a fray on one of the countless Counter-Strike servers available. The PS2 has made some progress in this area, forging the way for cross-platform gaming between PS2 and PC users, but only one or two titles support this right now, but for the future this is definitely the way to go which will only excite gamers. While the PS2 network adapter supports both 56K modem and broadband connections to the Internet, broadband is required for Xbox online play. As well, Microsoft charges a yearly fee of around £40 to use the Xbox Live service.

Professional Gaming: Professional Gaming has been about for a while, with a number of different

tournaments and leagues running in different parts of the world. As of yet, very few gamers are able to dedicate themselves to becoming professional, with the exception of *Thresh* and a few others. But with more tournaments and online gaming leagues, with larger prizes and sponsorship, taking up gaming as a profession rather than a hobby, could become more attractive. There has been some movement towards "arm chair gaming". Players of different games have "tuned in" to watch other people playing their favourite games, doing this for tips or entertainment. An example of this is for Unreal Tournament from Epic Games. Unreal TV uses the game client on the viewers system and let's people log in and watch a game in progress. Professional gaming could become the spectator "sport" of the future.

The distinction between games and reality is becoming even hazier, with graphics becoming more photo realistic and MMORPG worlds that are home to thousands of people. Soon we may not be able to tell the difference between the real world and the fantasy world created for us to play in. The assimilation into an online world has already begun, with the most famous cases being in Ultima Online where players have got married. There has also been selling of virtual houses and the sale of items that have no real world value all for real cash. All this along with holding rallies and protests online, within the game. With the visuals and sounds becoming more intense and realistic and the interfaces becoming more natural and practical, is it a stretch of the imagination to think that players may find themselves living more and more within the game.

The Cost of Playing Online: The major companies haven't yet decided how they are going to make there money of online gaming but there has been suggestion that it could be through pay-to-play services or having to pay a monthly fee to subscribe to online gaming. Another major thing that will help with the growth of online gaming is there are talks that by 2008 gaming consoles will have the ability to go online built into them and already some have started to do this such as Microsoft's Xbox Live. Over one million games are played via Xbox Live every week. However, Microsoft is not alone. During the first half of 2003, the other major console vendors, Sony (Playstation2) and Nintendo (GameCube), added online capability to their consoles. In September 2003, Sony announced that there were 780,000 PS2 network adapters sold, worldwide. The majority of these network adapters were sold in North America. So far the two main gaming consoles for online gaming are the Playstation 2 and the Xbox but they are struggling to control the online sports gaming segment. Therefore Sony and Microsoft are launching a sports portal that has universal logins which allows free online gaming. They plan to introduce a charge of around £23.50 a month at a later date for this service. In May 2004 the top five online gaming companies were NCSoft, Sony Online Entertainment, Electronic Arts, Mythic Entertainment and Microsoft Corporation. One of the most popular online games currently is SOCOM II US Navy SEALS. SOCOM II (Figs. 1 and 2) has a USB headset that allows interaction with others whilst online. This online game is available to play on the Playstation 2 through broadband supporting up to 16 players in each game. It is estimated that online gaming accounts for roughly 14% of the traffic over the Internet's US backbone at present. One potential impediment to that growth of online games is cost. Paying for eight to 16 hours a day for an online game as well as paying for an online subscription fee may not seem expensive but for young people - the money for a game console, online connection hardware, the games themselves and eventually online subscription fees can be substantial.

The Future in Online Gaming: Mobile phones have already made use of the wireless networks for online java gaming and wireless multiplayer facilities on most handsets and Sony already have their first handheld gaming/entertainment device - the PSP. This device incorporates a game system with almost as much power as its predecessor – the PS2 along with an MP3 player and mini DVD capabilities. This device is only the size of a packet of crisps. Nintendo however seem to be slightly ahead

Fig. 1: Face to Face Online in SOCOM II

Fig. 2: SOCOM II Look-out Post Gun

Fig. 3: Final Fantasy XI

of the competition in the field of wireless, online, handheld gaming with the surprise leakage of information in the first quart 2004 about its next generation handheld - *Nintendo Game Boy: Double Screen (GB:DS)* which is striving to take market share from Sony in the handheld entertainment devices market. The *GB:DS* original specifications include two screens for different perspective views of the game, touch screen technology, wireless access to other devices and Bluetooth capabilities. Nintendo have also hinted to SMS facilities so that gamers can carry out conversations with each other while playing.

One of Sony's latest creations is the 'Eyetoy', is like a regular webcam however it has built in motion sensors to detect movements in the images it picks up. So far it is only used in offline gaming as a mechanism that replaces the console's controller and replaces it with the actual user reacting to their hand movements. This could easily be implemented to not only view the people a person is playing with/against, or to capture the user's image and place it on the in-game model allowing the user to create their own personal *avatar* (character models used in gaming). If implemented correctly it could be used to play certain arcade games online, games such as Konami's '*Police 24/7*', this is a shooting game in which a camera picks up and reacts with the movements of the player allowing them to physically take cover behind objects or dodge bullets. Game consoles and other home Internet hardware, such PCs and wireless access points, will become less and less distinguishable so that a future Xbox may also be a home's Internet gateway and home entertainment server.

CONCLUSION

Interestingly, the number of gamers using their consoles to go online is disproportionately small compared to the installed user base of each console. With 780,000 network adapters sold and an installed base of around 50+ million, the PS2 network adapter's market penetration among PS2 owners is only at around 1.5%. With 500,000 Xbox Live subscribers and a user base of around 9 million Xboxes, the market penetration of Xbox Live is only at around 5.5%. For Nintendo's adapters, it is well under 10% of GameCube owners. However, despite this, the future of online gaming is brighter than ever, with more homes getting broadband connections. With more wireless access points and enhanced cellular networks, the ability to do so on the move is arriving. One potential hurdle to that growth is actual costs. If one is spending eight or even 16 hours a day playing a desired then an online subscription charge for each game may become expensive.

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