

Quake: The Rise and Decay of the Grandfather of eSports

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Abstract

This paper takes a look at why and how Quake laid the first stone in the creation of the current version of eSports to then degrade in popularity to the point that it is currently. It will examine the different reasons that caused it to be the number one competitive eSport as well as analyse how those ceased to be an advantage over time. The study will relate to events that happened in the late 90s early 2000s (1997-2001), the period that encompasses the birth of Quake as an eSport, its rise to the top and the final decline at the hands of other competitive games like *Counter-Strike*.

1 Introduction

The deafening and thunderous sound of the current eSports scene is getting more and more common each year that goes by and so is its volume as the latest The International event for Dota shows in the tremendous prize pool of almost 25 million dollars (*E-Sports Earnings: Largest Overall Prize Pools in eSports*).

We got used to colossal games and titanic multimillion events happening every year involving eSports competitions. But every story has its beginning and this one is no different.

Back in the 90s when eSports, as they are today, could only be imagined or dreamed of one game and its players started to lay the first few stones. **Quake** and its small but enthusiastic fan-base had a very significant impact in creating the foundation of the



Figure 1: The International 2017. Image from gosugamers.net

competitive gaming scene and, as such, they gained the right to be considered amongst the *Grandfathers of eSports*.

1.1 Defining eSport

Before jumping into the core of the content regarding Quake it is necessary to have a common idea of what the term **eSports** means in the current context. Commonly defined as any form of competition facilitated by video-games, that definition would be slightly distant from the real meaning that it tends to have between players. When someone that knows about the eSports scene thinks about examples of what an eSport actually is games such as *League of Legends* (Riot Games 2009), *Counter-Strike*

(Valve L.L.C. 2000), *Starcraft* (Blizzard Entertainment 1998) or *Street Fighter* (Capcom 1987) generally come to mind.

The common factor that these games have that the definition ignores is the fact that they all involve **direct competition** against other players. This distinction is important in the context of the present topic since it leaves out of the eSports definition the competitive arcade game scene in the 80s.

Games such as *Pac-Man* (Namco 1980) or *Donkey Kong* (Nintendo 1982) had significant competition before the 90s as documented in The King of Kong (Gordon 2007). But this type of **indirect competition** in which players try to perform better than their opponent against the machine is not very correlated to the current common eSports definition. A good argument for this is the fact that the top 100 games by prize money (*E-Sports Earnings: Top Games of 2017*) (softly correlated to player counts and view numbers) does not list a single game that involves **indirect competition**, all of them have a direct players versus player model.

Having this in mind, a good short and simple although not necessarily universal definition would be:

Direct video-game competitions often played for on-line or live audiences

1.2 Introducing Quake

Terms such as *Arcade Style Shooter*, *Arena-FPS* or *Ego-Shooter* are commonly used to describe what Quake is. Understanding what this means is important to then be able to fully grasp why the story started and ended the way it did.

This game was about highly enthusiastic communities, almost reaching a somewhat healthy version of fanaticism. It came to tap into the deeply rooted but unsatisfied desire for real competition that these players had. Previously there were things such as

the already mentioned arcade game tournaments but those lacked the thrill of directly defeating your opponent with your superior skills (Taylor 2012, p. 7). And games such as *Doom* (id Software 1993) that offered similar game-play were significantly worse regarding the technology, availability, level of competition and more factors expanded in the next sections.

Here it is where the very interesting definition of *Ego-Shooter* comes into play. Surprisingly enough, that is the translation of First-person shooter for the German language. The word *Ego* here started without the usual meaning related to valuing oneself too highly but slowly morphed towards there when English speaking European players found out how well this fitted the game and its players.

The design of this game made it so mastery was difficult but satisfactory. This high skill ceiling is one of *Quake*'s most notorious characteristics even today and it made competing against similarly passionate opponents especially attractive. Even more so than the few previous directly competitive games that came before such as the first *Street Fighter* (Capcom 1991).

1.2.1 Why not others?

Given that our definition already excludes indirectly competitive arcade games the only truly relevant contender for the title of *Grandfather of eSports* is the game that was just mentioned: *Street Fighter II* (Capcom 1991).

Two games from the *Street fighter* franchise were the ones involved in the first *Evolution Championship Series* in 1996. There are two main reasons why Quake's run in the late 90s makes it more relevant than *Street Fighter*.

The first one is the raw size, visibility and quality of the first real Street Fighter tournament, **B3**¹.

¹**B3: Battle by the Bay**(*Evolution Championship Series*) was the first tournament organized by the now known as **Evolution Championship Series**

There were roughly 40 players involved and the matches were not shown on-line or to a significant live audience besides the players themselves. The only way to see some of the matches was with VHS recordings.

The other significant reason is that there was not another significant competition for *Street fighter* until the year 2000 where another *Battle by the Bay* tournament, the **B4**, was organized. This shows the **lack of impact** that this game had when compared to the big events that Quake had starting in 1997 with thousands of people in a live audience, high production value on-line streaming and big prize money.

2 The History

2.1 1996-1997: The Early Days

January 1996, two young players that identified themselves on-line as "*Spleenripper*" and "*Dr. Rigormortis*" were already building new systems and preparing a full LAN set-up to get ready for the release of Quake (*Historical Perspective Concerning the Clans of Quake*) **It was already a phenomenon** within its own niche before it was even a tangible game you could play and said release was still half a year hence.

The first relevant version of Quake that hit the public was *QTest* (*Quake Wikia: QTest*) on February 24, 1996. It became extremely popular amongst **players that already knew about Doom** (id Software 1993) and were eager to see the next big thing from *id Software*. This version only could be played in multi-player, which shows the emphasis that the devs put on that aspect of the game.

Soon after that came the shareware edition of Quake. By this time the **formation of clans** such as *The Amish*, *Red Dragon* or *Impulse 9* was already established in the community. The fact that these clans were astonishingly passionate about the game mixed with the gaming web boom at the time with some pages like *Blue's News* hitting consistently



Figure 2: "Thresh" wins Carmack's Ferrari. Image from pvplive.com

40.000 views a day. This created the perfect hotbed for the growth of such a new and fervent community.

Soon came the real deal, **the commercial release of Quake** (id Software 1996) **in May 1996** only heated the circumstances. Talks about creating tournaments were being held every day at the forums and some started to happen, these were both small by current standards but big for the time. Also, the first QuakeCon (*QuakeCon*) (Van Ditmarsch 2013, p. 11) event was held in a hotel close to id Software's offices. It had 30 attendees in the first day and 100 by the end of the weekend once the news spread out.

At this time nothing could compare to what happened in May of 1997 when businesses like Intergraph, Microsoft and the developers from id Software got together to organize the biggest tournament to date, they called it **Red Annihilations**. Said event was held during the now very famous **E3 expo (E3)** in the famous **World Congress Center**.

This **1v1** tournament had more than 2000 participants qualifying on-line and the top 16 were flown to the live setting in the event to compete

for **John D. Carmack's**² **Ferrari 328 GTS**. More and more breakthrough concepts kept being tied to this event. Not only the live audience was very significant but most of the spectators were able to watch the tournament via online in-game cameras professionally orchestrated. At the end of the tournament media like the NBC and The Wall Street Journal covered the event.

Right at that time the **CPL** (*Cyberathlete Professional League*), the pioneer in professional video-game tournament organizers, was created and a few months after, in October 1997 they organized their first event called **The FRAG** with a prize pool consisting of \$4.000 in merchandise.

At the end of 1997, Quake was already becoming a big hit in the gaming community and it didn't show any signs of stopping (Wagner 2006).

2.2 1998-Early 2000: Exponential growth

Quake II (id Software 1997) was **released at the very end of 1997** and quickly became the standard for tournament play. The short intervals and significant improvements between versions of Quake had the community permanently excited to learn and compete.

The **year 1998** fed on the previous success and saw a significant increase in both the size of big events and the number of small ones. On July of this year, the already mentioned CPL paired with some community members involved in previous tournaments organized the third QuakeCon event, which at the same time was the second FRAG event from CPL. At the time this presented a bad view to some members of the community. Even in those circumstances, it had an attendance of 800 people and 300 BYOC³. The prizes

²John D. Carmack was the co-founder and lead developer in id Software during the era that concerns us.

³**BYOC** stands for Bring Your Own Computer, used for members of an event that carry and use their own machines.



Figure 3: "Fatal1ty" becoming an eSports star. Image from si.com

went from being merchandise to real money, giving \$1.000 for 5th place and scaling up to \$5.000 for first.

After experiencing the potential for big tournaments the **QuakeCon** dedicated more time to prepare the event without relying on the CPL. Going into the **year 1999** the event was much larger (Lewis 1999). The major involvement from id Software as a sponsor allowed to use a much bigger venue and have developers participate. The attendance rose to 1100 people and 500 BYOC. Another important factor was the first ever tournament with *Quake III* (id Software 1999), which was still far from its release. Later on in the year 2000, the event raised its numbers to 3000 attendees and 900 BYOC.

The **CPL** also kept blooming and establishing themselves as **the big fish in the growing pond** of eSports tournament organizers. They served as an example for many new game events and eSports leagues but none could compare to their success yet. After 1999 successful event they broke records when in the year 2000 they held a *Quake III* tournament with a **prize pool of \$100.000**, 40.000 of which went to one of the rising stars of Quake, Johnathan 'Fatal1ty' Wendel. The existence of this characters only

helped eSports and Quake to be more recognized and reach new potential fans.

2.3 Late 2000-2001: Slayed by its own son

Minh "Gooseman" Le (*Counter-Strike Wiki: Mign "Gooseman" Le*) was a Vietnamese programmer deeply involved with the modding community of Quake. Him and another programmer in the same Quake modding team, **Jess Cliffe**, started to work on what would become the **heir of Quake** in the eSports scene, *Counter-Strike* (Valve L.L.C. 2000).

Counter-Strike came as a mod for *Half-Life*, the incredibly successful First-Person Shooter game based on the *Quake II* engine. Le was already used to work with said engine so modding *Half-Life* felt familiar. This created a very interesting situation after the first version of the mod came in June 1999.

CS ⁴ kept gaining fans and getting bigger by the weeks. It was the Quake's story in a much shorter time frame. Old fans from the franchise were switching to CS, tournaments quickly put it in the same position as Quake in the year 2000 and the snowball just kept fattening and rolling down an increasingly steep hill.

Such was its success that **2001** saw the decline of Quake by the hands of a game that was a direct successor. Quake not only gave a large part of its technology and design to CS, but also a big part of its fan-base, Quake-based tournament and league organizers and, in general, a perfect platform for the next big eSports to grow.

A good example was what the CPL calls the beginning of their "**Golden Years**" (*Cyberathlete Professional League*), which at the time could be considered also the golden years of eSports given the position of the organization and the creation of the World Cyber Games (*World Cyber Games*) (Snavey 2014, p. 28). In 2001, the event's main title

was, unsurprisingly, CS replacing the long-standing Quake. This year saw a prize-pool of \$150.000 and was regarded as the biggest event to date.

The leap was immense (Hope 2014) and so the reasons to consider Quake as the main game for a tournament or league were becoming insignificant compared to the potential wins of **having CS instead**. Other new competitive games, sometimes from other growing genres, were quickly developing and feeding from the fan-bases of older games. A good example would be *Starcraft* (Blizzard Entertainment 1998) representing RTSs ⁵.

In general, given the deep relationship and obsession that the core of the Quake community had with the game, id Software's franchise fell to a stable and consistent position in the shadow of the biggest, more prominent games. Looking back during the beginning of the new millennium, it looked like the years of Quake ruling the early days of the eSports kingdom were long gone (Edwards 2013).

3 The Reasoning

With all the different events laid out a deeper analysis of why those happened is now feasible. The reasons had to be major to justify how it started from nothing and went to become this new overwhelming force in the world of gaming.

But perhaps what could be more interesting is how the nature of those reasons that led Quake to its top position in the year 2000 quickly turned on it and ceased to be relevant given how the community had evolved and the new games that came to take Quake's spot at the zenith.

3.1 Design: Skill-based Masterpiece

A perfect example of what Caillois defined as a game of *Agon* (Caillois 1961), the game was quickly categorized as a skill-dependant game which required a ton

⁴CS is a common abbreviation for Counter-Strike.

⁵**RTS** is short for the Real-Time Strategy genre or games.

of effort to perform. The next few paragraphs will focus on how it ended up being that way and, when applicable, why those design decision, mechanics or reasons are not compelling anymore.

3.1.1 Unintended but Important

Kicking things off on a light note there are the unplanned mechanics and the features the game had which created completely unforeseen situations.

Strafe-Jumping was a movement technique in Quake that allowed the player to jump in a certain way increasing his velocity past the theoretical programmed limit. If players chained together these jumps while achieving incredible speeds they would be using what was called **Bunny-Hopping**.

Both of those features were **completely unintended** and came from a bug in the movement related code yet they became so deeply important that the developers left said bug intact. The significance of **the mechanic was very relevant to the deeply competitive community**. It had a great impact on competitive gameplay while being very hard to learn and master. Rocket-Jumping⁶ is another example of this.

But mechanics were not the only unintended but important aspect of the game. The developers fantasized at one point about having big **groups and clans** of people competing in their game but they themselves **did not expect** that to materialize nor they intended to make it happen (*Historical Perspective Concerning the Clans of Quake*). As we now know, it did in fact happen and it was what kicked things off as far as the first small eSports tournaments.

3.1.2 Elitism, prowess and expertise

The **main defining factor for Quake** which still applies today. The game had and still has

⁶Rocket-Jumping is a technique in which the player shoots a rocket near its feet while jumping to boost their speed and height



Figure 4: Competitive Screenshot. Captured from "Fatality" vs "ZeRo4" on youtube.com

an incredibly **high skill ceiling** and **massively steep learning curve** caused by the very **hard to learn mechanics, aim and movement focused gameplay** and the use of mainly the **1v1 mode** in the competitive scene.

In the **late 90s**, those factors were very appealing given the potential audience. In a time where competitive gaming was so small, the only **members of the community** were ones that now would be defined as "**hardcore gamers**" or the "**tryhards**". The core of the competitive gaming community found a game that focused on pure skill captivating.

But **the more a medium grows the more of its fan-base is composed of casual followers** instead of devoted aficionados. Such often called "**casuals**" in a derogatory manner by the "**hardcores**" are not as interested in getting into a game that required months or even years of practice to be able to grasp its mechanics and be a contestant.

Currently, a **main focus of massive competitive games is to give that fun, fast and forgiving experience** to the casual players, allowing them to amass colossal fan-bases that feed the

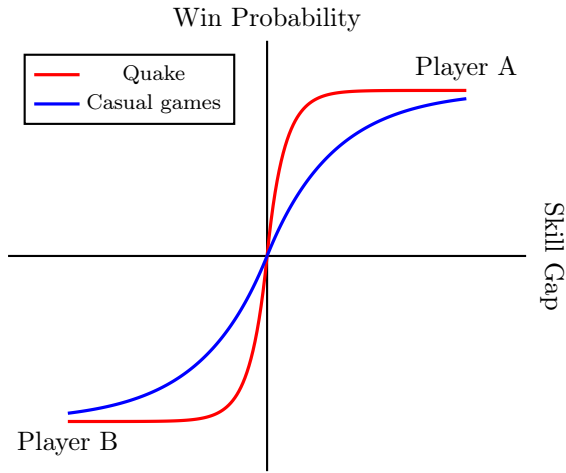


Figure 5: Skill Gap to Win Probability relation

eSports machine.

Quake could not be more different. The aim, movement, strategy focused gameplay and the general difficulty create this situation in which even a game with two very evenly matched players often ends in utter and complete domination. A **hugely unbalanced final score** in this game does not mean that one player is significantly better, the **skill gap might actually be minimal**. Conversely, imagine how **crushing** games can be to a new casual player who tries to compete with an old Quake veteran, the **experience would be demolishing**.

This is explained in **Figure 5** which co-relates the probability that one player might win to the difference in skill between them. Values to the **top or to the right** indicate **positive or advantageous values for Player A**, when considering values to the **bottom or left** they are **positive or advantageous for Player B**.

If the **Skill Gap (in the X-axis)** is on Player A's side in a casual game (blue line) he has indeed a higher **Probability of winning (in the Y-axis)** than losing but this probability is much higher in Quake than in some other casual game. The red

line shows how even when minimal skill gaps, the win probability of the slightly better player spikes way faster in Quake compared to casual games. This creates the situation explained previously where very unbalanced scores are common among similarly-skilled players in Quake-like games while not as common elsewhere.

Some reasons for this have already been mentioned, such as the difficulty curve. But the fact that the biggest eSports titles are **team based** is not by chance (Van Ditmarsch 2013, p. 12). A team game naturally softens that spike we see in Figure 5's red line. Having more people playing for a side adds more random elements that could help swing the game in favour of the team with a bad player. Such bad player in a skill-based 1v1 game is likely to lose many more games than in a team-based title.

There are more elements that matter, such as the **in-game random elements** of some competitive games. Card games being a good example of this. In *Hearthstone* (Blizzard Entertainment 2014) a player can match up with a competitor more skilled than himself and still win because of inherently random factors such as having a deck that is very good against the opponent's, getting better cards each turn while the opponent gets bad ones or a ton of random effects that the cards in that game originate.

There is a **famous anecdote** within Quake forums in which a friend of an old Quake veteran went to his house and played the game for the first time while his friend finished some tasks. When said veteran came back the casual player had mixed feelings, he liked the mechanics but he asked the infamous question:

Why can't I compete?

Although he understood that winning should not be plausible for him he could not wrap his head around being utterly dismantled while not being able to even get a single kill even when he, as a beginner, was playing against Quake veterans that had put thousands of hours into the game. **This exemplifies the elitism of Quake**. If you go into

a game against the top Quake player in the world you are likely to not get a single kill, in that very same case in *Counter-Strike* or *League of Legends* your team or you might even kill him a few times or even get some wins or rounds.

Rolling the dice and splitting responsibilities help casual players enjoy a game before they are good at it. Competitive Quake follows a **completely opposite philosophy** with its lack of random elements, skill-based game-play and 1v1 mode.

3.2 Technology: Engineering Gem

Many breakthrough features represented quantum leaps in-game technology when *Quake* was released. The recurring theme of reasons why *Quake* was at the top becoming irrelevant after a few years comes back vigorous in this section.

Since *Quake* was the first game to incorporate this technology with such level of quality, they were obviously regarded avant-garde and innovative. Time went by and other developers caught up, in part helped by the fact that the source code of Quake was and still is readily available (*id Software public GitHub repository*).

Some of the main advantages deserving mention were:

- **Real three-dimensional engine:** Allowing 3D movement and the possibility of looking up and down. This was very impressible for old *Doom* players that were used to that camera's lack of verticality.
- **Engine advancements:** While the game was astonishing for that era it ran very fluently. This was caused by smart rendering design decisions such as **pre-calculate lights and shadows**, **sectioning the maps** to avoid computing not currently visible, using **hardware acceleration** and pre-process maps to reduce the complexity of their geometry.
- **Best Netcode to date:** Used a Server/Client model was a significant improvement over having to directly dial the modem of the other player. Using a server provided not only a much more consistent experience but also support for more players and a much more convenient way to set up competitions or friendly matches.
- **Ease of modding and creating content:** Modify the game's code and create maps was a very easy task compared to other games at the time. The engine had such a good structure, quality and readability that it was used as a base for a wide variety of other important engines and today it is still a staple in-game engine and networking teaching environments.

3.3 Situational: Other Causes

The **lack of similar games** was a strong point for Quake's success but there were also other reasons deserving of mention.

A plethora of people claimed that they **bought Quake only for the single-player** since *Doom* was already a huge success years before. Then when they had already played Quake's single-player mode and discovered the multi-player it opened this door of opportunity to keep enjoying the game differently. The game was not marketed for the multi-player, and people did not feel like they were gambling and buying this "new thing", in their eyes **they were investing in a single-player game** from a company they already trusted.

Something that kept the game from still being successful going forward is **id Software's tendency to focus on the game they are making, release it and move on to the next one**. In the current state of eSports, continuous support from the developers is a key component to make a successful competitive game, this enables necessary patches, sponsored events and in-game eSports focused content.

Last but not least there is the **creativity aspect**

of the game. Much of the game success depended on how the community made maps and mods to then run those on their own servers. This made it so the player base naturally moved to the most liked versions of the game while having a great deal to choose from. **Currently, developers exercise massive control** over the content and versions of their product, which **keeps the community from splitting** and creates a **consistent experience** at the cost of **eliminating that degree of creativity.**

4 Conclusion

Much in the same way that the first computers, cars, televisions, movies or websites were pioneers and **disappeared from the public's mind**, Quake has suffered his own version of such fate. The very **first trailblazers** of a new medium or paradigm **are inherently modest** and concealed for the big masses. Nonetheless, that is **not a valid excuse to disregard their importance.** Nonetheless, there is a good chance that even new "*hardcores*" coming into the world of eSports will not hear about Quake whatsoever.

Additionally, after considering everything contained in the previous sections, it is clear that **a pure Quake-Style game will not reign on top of the eSports behemoth again.** Such feat was only possible when eSports were more like a sprouting movement and not the gargantuan leviathan they are today.

As it happens with every growing type of media, **best and biggest tend to quickly diverge** as its popularity grows. Wolfgang Amadeus Mozart could be both the best and most popular musician in the XVIII century but if one tries to imply that the same could happen in the XXI century, Bruno Mars or Taylor Swift would beg to differ.

Striving to **make a popular eSports game** that is casual and sponsor-friendly is now a science and **affects videogames' design.** The final version will most usually **drastically change** if the

intention was to make the **fairest, challenging and skilful product.** In defiance of such trend, Quake fans shall not be distressed. Their game, and others akin to the latter **will always have their place.** Fervent communities, although small, will continue to sustain them by reason of **the massive reward** of breaking their barrier to entry obtained in the form of even-handed entertainment, competitive enjoyment and vast sense of accomplishment.

Bibliography

Caillois, Roger (1961). *Man, play, and games*. University of Illinois Press.

Counter-Strike Wiki: Mign "Gooseman" Le. URL: http://counterstrike.wikia.com/wiki/Minh_Le (visited on 11/30/2017).

Cyberathlete Professional League. URL: <http://thecpl.com/about-cpl/> (visited on 11/30/2017).

Degroat, Jeremy "Lindril". *Historical Perspective Concerning the Clans of Quake.* URL: <http://www.muppetclan.com/history/> (visited on 11/30/2017).

E-Sports Earnings: Largest Overall Prize Pools in eSports. URL: <https://www.esportsearnings.com/tournaments> (visited on 11/30/2017).

E-Sports Earnings: Top Games of 2017. URL: <https://www.esportsearnings.com/history/2017/games> (visited on 11/30/2017).

E3. URL: <https://www.e3expo.com/> (visited on 11/30/2017).

Edwards, Tyler F.M. (2013). *eSports: A Brief History.* URL: <http://adanai.com/esports/> (visited on 11/30/2017).

Evolution Championship Series. URL: https://en.wikipedia.org/wiki/Evolution_Championship_Series (visited on 11/30/2017).

Gordon, Seth (2007). *The King of Kong: A Fistful of Quarters.*

- Hope, Alex (2014). “The Evolution of the Electronic Sports Entertainment Industry and its Popularity”. In: *Computers for Everyone* 87.
- id Software. *id Software public GitHub repository*. URL: <https://github.com/id-Software> (visited on 11/30/2017).
- Lewis, Peter H. (1999). “Peace, Love And Quake”. In: *The New York Times*. URL: <http://www.nytimes.com/1999/08/12/technology/state-of-the-art-peace-love-and-quake.html> (visited on 11/30/2017).
- Quake 3 Tournaments/Leagues 1999 > 2001*. URL: <http://www.angelfire.com/me4/joeyadonis/5-q3-99-01.html> (visited on 11/30/2017).
- Quake Wikia: QTest*. URL: <http://quake.wikia.com/wiki/Qtest> (visited on 11/30/2017).
- QuakeCon*. URL: <http://www.quakecon.org/> (visited on 11/30/2017).
- QuakeWorld Wiki*. URL: <http://wiki.quakeworld.nu/1997> (visited on 11/30/2017).
- Snively, Tyler Louis (2014). “History and analysis of eSport systems”. PhD thesis.
- Taylor, TL (2012). *Raising the Stakes: E-sports and the Professionalization of Computer Gaming*. Mit Press.
- Van Ditmarsch, JL (2013). “Video games as a spectator sport”. MA thesis.
- Wagner, Michael G (2006). “On the Scientific Relevance of eSports.” In: *International Conference on Internet Computing*, pp. 437–442.
- World Cyber Games*. URL: <http://worldcybergames.com/> (visited on 12/01/2017).
- (Mar. 11, 2014). *Hearthstone*. [PC Digital]. published by Blizzard Entertainment.
- Capcom (Aug. 30, 1987). *Street Fighter*. [Arcade]. published by Capcom.
- (Feb. 6, 1991). *Street Fighter II: The World Warrior*. [Arcade]. published by Capcom.
- id Software (Dec. 10, 1993). *Doom*. [Disquette]. published by GT Interactive.
- (June 22, 1996). *Quake*. [PC CD-ROM]. published by GT Interactive.
- (Nov. 30, 1997). *Quake II*. [PC CD-ROM]. published by Activision.
- (Dec. 2, 1999). *Quake III*. [PC CD-ROM]. published by Activision.
- Namco (May 22, 1980). *Pac-Man*. [Arcade]. published by Bandai Namco Entertainment.
- Nintendo (July 9, 1982). *Donkey Kong*. [Arcade]. published by Nintendo.
- Riot Games (Oct. 27, 2009). *League of Legends*. [PC Digital]. published by Riot Games.
- Valve. *Half Life*. [PC CD-ROM, PS2 DVD-ROM].
- Valve L.L.C. (Nov. 9, 2000). *Counter Strike*. [PC CD-ROM]. published by Sierra Studios (physical) and Valve Corporation (digital).

Videogames

- Blizzard Entertainment (Mar. 31, 1998). *Starcraft*. [PC CD-ROM]. published by Blizzard Entertainment.