laboratory to arcades and, later, onto shelves and into the cloud, video games have rapidly and radically evolved in the past half century. In the year 1940, the first recognized example of a game machine was unveiled by [Dr](http://www.historyofinformation.com/expanded.php?id=4472) [Edward Uhler Condon at the New York World’s Fair](http://www.historyofinformation.com/expanded.php?id=4472). The game based on the ancient mathematical game of [Nim](http://www.archimedes-lab.org/game_nim/nim.html), was played by about 50,000 people during the six months it was on display, with the computer reportedly winning more than 90 percent of the games. Nearly three decades later, Ralph Baer and his team released a prototype, the “Brown Box,” in 1967. The “Brown Box” was a vacuum tube-circuit that could be connected to a television set and allowed two users to control cubes that chased each other on the screen. The “Brown Box” was licensed to Magnavox, which released the system as the [Magnavox Odyssey](http://americanhistory.si.edu/collections/search/object/nmah_1302004) in 1972. It preceded Atari by a few months, which is often mistakenly thought of as the first games console. Atari (founded by Nolan Bushnell, the godfather of gaming) created a whole new industry around the “arcade,” and [in](https://www.atari.com/history/1972-1984-0) 1973, Atari began to sell the first real electronic video game Pong [5].

The first example of players competing on separate screens came in 1973 with “Empire” a strategic turn-based game for up to eight players which was created for the [PLATO network system](http://www.platohistory.org/blog/2013/08/plato-notes-released-40-years-ago-today.html). PLATO (Programmed Logic for Automatic Teaching Operation), was one of the first generalized computer-based teaching systems, originally built by the University of Illinois and later taken over by Control Data (CDC), who built the machines on which the system ran [5].

The early 1970s is the advent of personal computers and mass-produced gaming consoles become a reality. Technological advancements, such as Intel’s invention of the world’s first microprocessor, led to the creation of games such as Gunfight in 1975, the first example of a multiplayer human-to-human combat shooter. It’s using one joystick to control movement and another for shooting direction something that had never been seen before. In 1977, Atari released the Atari VCS (later known as the Atari 2600), It was only designed to play 10 simple challenge games, such as Pong, Outlaw and Tank. However, the console included an external ROM slot where game cartridges could be plugged in [5].

As home and arcade gaming boomed, so too did the development of the gaming community. The late 1970s and early 1980s saw the release of hobbyist magazines such as Creative Computing (1974), Computer and Video Games (1981) and Computer Gaming World (1981). These magazines created a sense of community, and offered a channel by which gamers could engage [5].

The home computers had much more powerful processors than the previous generation of consoles; this opened the door to a new level of gaming, with more complex, less linear games. They also offered the technology needed for gamers to create their own games with BASIC code. In addition, early computers also paved the way for multiplayer gaming, a key milestone for the evolution of the gaming community [5].

Multiplayer gaming over networks really took off with the release of Pathway to Darkness in 1993, and the [“LAN Party” was born](http://yourlan.blogspot.com.co/2008/09/history-of-lan-party.html). The real revolution in gaming came when LAN networks, and later the Internet, opened multiplayer gaming. Multiplayer gaming took the gaming community to a new level because it allowed fans to compete and interact from different computers, which improved the social aspect of gaming. This key step set the stage for the large-scale interactive gaming that modern gamers currently enjoy [5].

The Sega Dreamcast, the world’s first Internet-ready console, in 2000, real advances were made in online gaming as we know it today. The Dreamcast came with an embedded 56 Kbps modem and a copy of the latest Planet Web browser, making Internet-based gaming a core part of its setup rather than just a quirky add-on used by a minority of users. Dreamcast paved the way for the next generation of consoles, such as the Xbox. Released in the mid-2000s, the new console manufacturers learned from and improved the net-centric focus of the Dreamcast, making online functionality an integral part of the gaming industry [5].

Online storefronts such as Xbox Live Marketplace and the Wii Shop Channel have totally changed the way people buy games, update software and communicate and interact with other gamers, and networking services like Sony’s PSN have helped online multiplayer gaming reach unbelievable new heights. By the time of the Xbox 360 release, online multiplayer gaming was an integral part of the experience (especially “death match” games played against millions of peers around the world for games such as Call of Duty Modern Warfare). Nowadays, many games have an online component that vastly improves the gameplay experience and interactivity, often superseding the importance of the player’s offline game objectives [5].

Since smartphones and app stores hit the market in 2007, Rapid developments in mobile technology over the last decade have created an explosion of mobile gaming, which is set to [overtake revenue from console-based gaming in 2015](http://fortune.com/2015/01/15/mobile-console-game-revenues-2015/). This huge shift in the gaming industry toward mobile, [especially in Southeast Asia,](http://venturebeat.com/2015/06/23/southeast-asia-mobile-game-revenues-to-hit-7b-by-2019/) has not only widened gaming demographics, but also pushed gaming to the forefront of media attention [5].

The move to mobile technology has defined the recent chapter of gaming, but while on-the-move gaming is well-suited to the busy lives of millennials, gaming on mobile devices also has its limitations. Phone screens are small (well, at least until the iPhone 6s came out), and processor speeds and internal memories on the majority of cellphones limit gameplay possibilities. According to a recent [VentureBeat article](http://venturebeat.com/2015/09/18/what-happened-to-the-growth-in-mobile-gaming/), mobile gaming is already witnessing its first slump. Revenue growth has slowed, and the cost of doing business and distribution costs have risen dramatically over the last few years [5].

Virtual reality (VR) company Oculus was acquired by Facebook in 2014, and is set to release its Rift headset in 2016. [The headset seems to lean perfectly toward use within the videogames industry](http://fortune.com/2015/10/07/virtual-reality-mainstream/), and would potentially allow gamers to “live” inside an interactive, immersive 3D world. The opportunities to create fully interactive, dynamic “worlds” for MMORPG, in which players could move around, interact with other players and experience the digital landscapes in a totally new dimension, could be within arm’s reach [5].

There have been a lot of advancements over the last few years in the world of language-processing artificial intelligence. In 2014, [Google acquired Deep Mind](https://techcrunch.com/2014/01/26/google-deepmind/); this year, [IBM acquired AlchemyAPI,](http://www.techtimes.com/articles/37216/20150305/ibm-acquires-alchemyapi-to-boost-deep-learning-capabilities-of-watson.htm) a leading provider in deep-learning technology; in October 2015, [Apple made two AI acquisitions](http://www.businessinsider.com/apple-acquired-two-artificial-intelligence-companies-2015-10) in less than a week. Two of the fields being developed are accuracy for voice recognition technology and open-ended dialogue with computers [5].

These advances could signify an amazing new chapter for gaming especially if combined with VR, as they could allow games to interact with characters within games, who would be able to respond to questions and commands, with intelligent and seemingly natural responses. In the world of first-person shooters, sports games and strategy games, players could effectively command the computer to complete in-game tasks, as the computer would be able to understand commands through a headset due to advances in voice recognition accuracy and through motion recognition using webcam [5].

Ru-Chu Shin et al conducted a study to determine the effectiveness of webcam motion sensor game for 3 autistic students. The result reveals that it enhances positive attitude, enhance enthusiastic and improves in heartbeat, blood pressure, body temperature, muscle and cardiovascular function. Then examined mobile multiplayer exertion game. Tuck of War, Diamond Hunter and heart rate are the games taken for the study and tested with school students (n=105). The result reveals that motion detection game plays a vital role in education and it fight against obesity problem [6].

Ameerani Jarbandhan discussed about three major areas such as body structure analysis, tracking of human motion using cameras and recognizing human activities, application for sport and current possibilities in human motion analysis. And discussed about the various exercise games available for elderly persons. They developed demo software called SANDRA to handle user’s movement. Ulf Hagen4 discussed about origin of game concept and described different domains that game design ideas were drawn. It also discussed about game design ideas such as recycled part and inventive part [7].

The discussion about the common interaction techniques, concept, common tracking algorithms, motion detection algorithms and demonstrators for motion detection as interaction technique on mobile devices. Michael Soppitt and Graham McAllister had taken three games such as Cops and Robbers, iDroids Mania and Inspector Gadget to determine behavioural difference between games of both high and poor quality. Ten participants are taken for the study. The result reveals that engagement is the significant factor for good games that keeps them to stay for longer duration [8].