Landesmuseum Zürich.

The history of video games

Eating dots with Pac-Man, rescuing the princess with Mario and Luigi, or wiping out your opponents in *Fortnite*: over about three generations now, video games have shaped the childhood of millions of people. A look back at 50 years of gaming history.

The desire to play is as old as humanity itself. For children, it's a vital tool to prepare them for life, and for adults, it's a way of escaping from reality and having a few moments of entertainment to yourself. Like almost all aspects of life, gaming too has moved into the digital world in recent decades. In 2018, one third of the world's population regularly spent time playing video games, whether on their mobile phone, a games console or a computer. The triumphant rise of the video game began in the 1970s, but has its roots in events that happened about 20 years earlier.

1950-1970 - Tinkering

The history of video games is closely linked to the evolution of the computer. In the 1950s, huge, room-sized computers solved relatively simple arithmetical problems. There was no question of playing games with these behemoths. And yet, at universities in the USA, creative minds developed simple computer games. However, these inventions were intended not for entertainment, but rather to demonstrate how the new technology worked. *Tennis for Two*, appearing in 1958, was the first video game programmed purely for entertainment. The game, consisting of a monitor for a piece of equipment on which two people were able to bat a spot of light back and forth, was presented at a three-day exhibition. Teenagers queued up to watch the game and try it out. After that, *Tennis for Two* was forgotten for 20 years, but is now considered the first ever video game.

1970s - Birth of the video game machines

Up to the beginning of the 1970s, students tinkered with increasingly compact computer systems. In 1972, the firm Atari was founded. The company not only dominated the video game industry for the next decade – it also developed *Pong*, the first game to become a global success. The playing principle of *Pong* is very similar to that of its predecessor, *Tennis for Two*, and could not have been easier. The instructions are limited to the statement: 'Avoid missing ball for high score.' In this game too, two players attempt to hit a ball – no more than a pixel – over a line. Although the idea for the game was not new, Atari integrated the computer, together with a display screen, into a box with a coin slot – thus inventing the video game machine. For the first time, a video game was available to a broader public for very little money. The game *Space Invaders* (1978) heralded the beginning of the golden age of the arcades, where the teenagers of the 1980s gambled away their pocket money on video game machines. Prior to this, computer technology had made significant progress, with the founding of Apple in 1976 and the development of

microprocessors. And Atari succeeded in pulling off another coup with the Atari 2600 home console: more than 30 million people bought the games console, launched in 1977, which wasn't restricted to just a single game but, thanks to interchangeable cassettes, offered a theoretically infinite number of games. The games featured very simple graphics and narratives. Levels, by which the game became increasingly difficult, and points systems were typical features. Players attempted to beat the high score, and found fame in the continuous rankings list. This meant simple games remained exciting for a long time.

1980s - The infancy of video games

Many classic games that are still going strong today came out in the 1980s: Pac-Man (1980), Ultima (1980), Mario Bros (1983), Tetris (1984) and SimCity (1989). At the beginning of the decade, not only was the market awash with countless new consoles, but increasingly cheaper and more powerful home computers started appearing. In 1983 the console market collapsed. Many companies, among them the industry highflyer and games pioneer Atari, went bankrupt. But before that, Atari did manage to release the game E.T. (1982), still considered the worst video game of all time thanks to its crude graphics and complicated gameplay. Out of the rubble of the industry emerged the firms Commodore, with its Commodore 64 home computer (1982), and Nintendo, with the Nintendo Entertainment System console, or NES for short (1985). With the more refined technologies, the games pushed forward into new spheres; gameplay and graphics became more innovative. Games got their own characters and more complex stories. Most genres as we know them today have their origins in this period. The Commodore 64 even allowed highly motivated users to program their own games. Children and teenagers of the 1980s spent hours in front of their home computers or consoles, and with the release of the Game Boy at the end of the decade, they even carried on after lights-out, playing by torchlight under the blankets.

1990s - A new dimension

Like the first generation of players, the games industry had grown up. Video games entered a new dimension – literally, because in the second half of the decade the graphics became three-dimensional. Players were now able to move in three directions instead of two. These game worlds looked more realistic and offered more complex possibilities. Console and game manufacturers vied for a share of the ever-growing market. In 1994, Sony launched the PlayStation – in technical and graphic terms, it was a quantum leap compared to the existing consoles. The game design studios churned out more innovative ideas, with history often serving as inspiration for the gameplay: in *Age of Empires* (1997), gamers built entire civilisations, and in *Command & Conquer* (1995) they waged war. In *Tomb Raider* (1996) they searched for historical artefacts alongside Lara Croft; in *Monkey Island* (1990), it was pirate's treasure they were after. But in the

1990s the games industry also lost its innocence because, inaddition to the gameplay action, violence also increasingly became a theme. Starting with *Wolfenstein 3D* (1992), 'first-person shooters' emerged. In these games, a player uses a weapon to kill off his or her opponents from a first-person perspective. For the first time, society starting asking itself whether violence in video games leads to violence in real life. The discussion continues to this day.

2000s - Gaming goes online

At the beginning of the millennium, the internet was still not powerful enough or in sufficiently widespread use to enable people to play against one another online. So gamers got together at LAN parties. Players brought their own computers and connected them up in a local network in order to play against one another into the early hours, or even all night long. Especially popular at these parties was the sometimes controversial game Counter-Strike (2000), in which gamers take on the role of terrorists or members of an anti-terror unit and use tactical manoeuvres to try to eliminate each other. But then, with the phenomenal increase in internet use, gaming also went online. For the first time games, such as World of Warcraft (2004), were played mainly on the internet. With each year of the decade, the technology also developed in leaps and bounds. Powerful graphics technologies made the video game worlds even more realistic. Thanks to artificial intelligence, simulated opponents no longer behave the same way in every situation, instead reacting autonomously to what's going on in the game. Open-world games were introduced, in which players explore fictional worlds on their own and are able to freely determine the course of the game. Or they create the virtual world themselves, as in a sandpit: this gaming concept is called 'sandbox'. The decade produced numerous bestsellers, foremost among them being *The Sims* (2000), *Grand* Theft Auto: San Andreas (2004), Super Mario Galaxy (2007) and Minecraft (2010).

2010s - Play anywhere, anytime

In the decade just ended, video games have become a billion-dollar business, and the profits higher than those of the film and music industry. Countless independent game studios have developed games for every type of platform: computers, consoles, tablets and mobile phones. As a result, even more people are playing video games regularly. And gone are the days when it was just children and teenagers who were playing these games. Older people are also discovering puzzles and games of skill on their mobile phones. On the train, waiting for the bus, or before going to sleep: there's a video game instantly available in any spare moment. Although compulsive gaming is nothing new, the number of gaming addicts is increasing with the spread of smartphones. For the majority of those playing, however, gaming is harmless entertainment. Games such as *Red Dead Redemption* (2019) which, thanks to sophisticated dialogues and emotive storylines, not only provide hours of gaming fun but also take a different course according to the

player's decisions, and so can be played again and again, are put out on PCs, PlayStation and Xbox. Another phenomenon of this decade is what are known as 'Let's play' videos. Gamers record themselves playing a game, providing a commentary on the gameplay as it unfolds and giving tips, and then post the video on YouTube, where it garners millions of clicks.

2020s - Deeper into the virtual world

From simple dots on a pale-coloured screen to coloured pixels and hyper-realistic 3D landscapes: thanks to technical developments, the story of video games is taking gamers ever deeper into the virtual world. What will the video games of the future look like? One thing is certain: the story will continue in the same style. Already, thanks to virtual reality, gamers can almost completely immerse themselves in a game. But this technology is still in its infancy. Better graphics resolution, tactile controllers and lighter devices will define the future of the gaming industry.