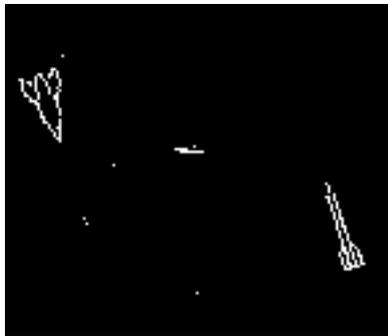


A History of the computer game

The history of the computer game is, in parts, a history of technology. The computer game requires technology capable of handling large amounts of data and of representing this data. The relationship between a technological phenomenon such as the computer and the less formally based culture is not a simple one: some theories will claim that technology determines culture, some will claim that culture determines technology. It may be most reasonable to see this as a history of mutual influences, where technology can inspire (or enable) cultural developments, and cultural developments can inspire new technology. To quote an obvious example, the computer game was originally developed on equipment designed for military and academic purposes. But today the computer game is the driving force in the development of much hardware such as 3d graphics accelerators.



Spacewar!, the first computer game. (1962)

The first computer game is generally assumed to be the game *Spacewar!*, developed in 1962 at MIT (Stephen Russell a.o.). *Spacewar!* originally ran on a PDP-1 computer the size of a large car. By today's standards, the graphics are rather primitive, although less primitive than many games from the 1980's. The game as such is not bad: Two players each control a spaceship circling a planet. The players can shoot each other, turn their ships, and accelerate. The goal is - naturally - to hit the other player before being hit yourself.



Pong. (Atari 1973) Advertisement for *Pong*.

The first commercially available video game, *Pong* (Atari 1973), was introduced 11 years after *Spacewar!* *Pong* is a simple concept that has turned out to be surprisingly durable even though the graphics are simply white rectangles on a black background. In the beginning, *Pong* was placed at entertainment venues, markets,

and fun fairs, next to mechanical pastimes and as a supplement to these. This is the same kind of place where the game *Space Invaders* (Taito 1977) was also introduced. *Space Invaders* defines most of the basic parameters of what I call the classical action game: A player controls an object/an actor against some enemies; a score is kept; the game is real-time and requires fast reflexes; the player has a fixed amount of lives (typically three); the game is based on successive levels of increasing difficulty; the game (or just the title) places the player's action as part of a minimal narrative.

As should become clear, there are many types of computer games. In the classical action game you can almost never *win*, the game just gradually becomes harder, and the highest honour achievable is to enter the high score list. The most general thing to say of the evolution of the computer game is probably that it has become gradually more based on genres. Almost all of the early computer games introduced new gameplay elements; later games tend to be examples of specific genres, borrowing traits from earlier games. (The computer game has become more *intertextual*, if one so desires.)

About the term *computer game*: This term is in sharp competition with *video games*, *console games*, and *arcade games*. Video games and console games usually means games connected to a TV, whereas arcade games means games placed in public spaces (and individual cabinets). Computer games are occasionally taken to mean games played on a PC. Since all of these areas have been developed in close parallel (and because all of these games are played on *computers*), I am using the term *computer game* to denominate all of these areas as a whole.

But it is an important development in this context, that the computer game has changed from being primarily played at an arcade to be primarily played in the home. This has made it possible to develop games of longer duration, to have games not focused on the simple goal of having as many players insert coins as quickly as possible.



Atari VCS 2600, the first popular home computer game system. (1977)

Many developments in the history of the computer game are not technological but purely conceptual. Whereas *Spacewar!* and *Pong* are games for more than one player, the time from approximately 1977 to 1993 is completely dominated by games for single players. The multi player game becomes widely popular when *Doom* (ID Software 1993) allows for connecting several PCs, for being several people present in the same game world. *Doom* is on the whole an incredibly influential game. It has been criticised for being violent, but it's one of the most popular computer games ever and it has led to a whole genre of games, the *3d-shooter* or *first-person-shoot'em'up*.

In retrospect, there was no technological reason why the multiplayer game didn't become popular in the mid-1980's. It would have been perfectly possible to network home computers like the Commodore 64, only nobody did. And this must be explained culturally: The first computers (like the aforementioned PDP-1) were giant machines priced at millions of dollars, and were thus shared by many users. In the mid-seventies, the idea of the personal computer emerges; a computer becomes something one person places on a desk. In the beginning of the 1990's the Internet takes off outside academic circles, and the computer starts to be seen as connected to other computers, part of a network. The single-player computer game is dominant during the reigning years of the isolated, personal computer.