

WHAT IS A VIDEO GAME

Zhou hai peng 14211139
ZheJiang Normal University

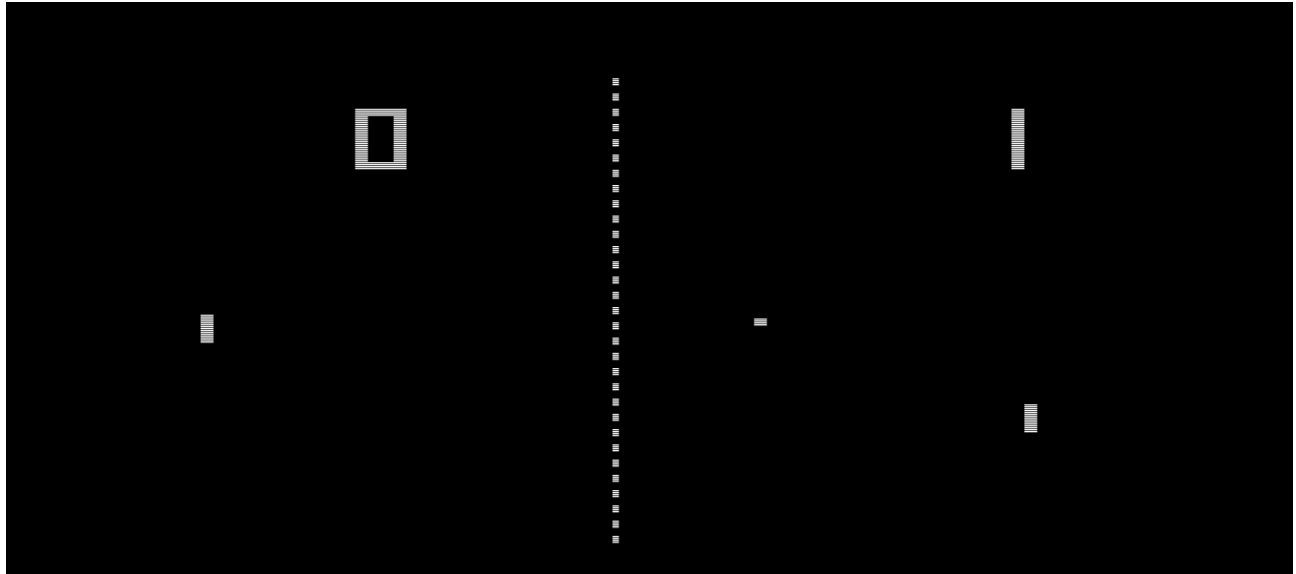


Figure 1: the first video game <pong>

1 WHAT IS VIDEO GAME

A video game is an electronic game that involves human interaction with a user interface to generate visual feedback on a video device such as a TV screen or computer monitor. The word video in video game traditionally referred to a raster display device, but in the 2000s, it implies any type of display device that can produce two- or three-dimensional images.

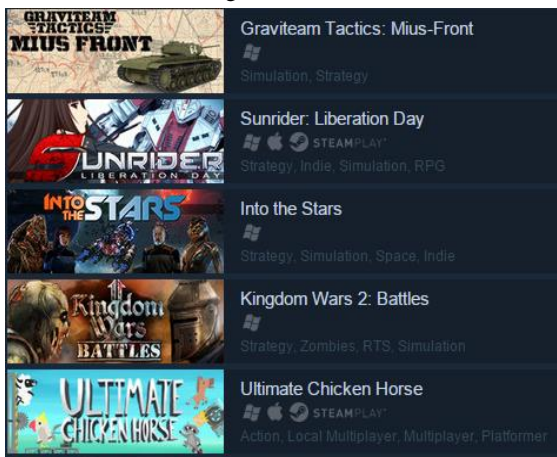


Figure 2: so many games in steam

2 HISTORY

Early games used interactive electronic devices with various display formats. The earliest example is from 1947—a "Cathode ray tube Amusement Device" was filed for a patent on 25 January 1947, by Thomas T. Goldsmith Jr. and Estle Ray Mann, and issued on 14 December 1948, as U.S. Patent 2455992.

In 1971, Computer Space, created by Nolan Bushnell and Ted Dabney, was the first commercially sold, coin-operated video game. It used a black-and-white television for its display, and the computer system was made of 74 series TTL chips. The game was featured in the 1973 science fiction film Soylent Green. Computer Space was followed in 1972 by the Magnavox Odyssey, the first home console. Modeled after a late 1960s prototype console developed by Ralph H. Baer called the "Brown Box", it also used a standard television. These were followed by two versions of Atari's Pong; an arcade version in 1972 and a home version in 1975 that dramatically increased video game popularity. The commercial success of Pong led numerous other companies to develop Pong clones and their own systems, spawning the video game industry.

Early arcade video games (1972–1978)

Early Home Computer Games (1976-1982)

Third generation consoles (1983–1995) (8-bit)

Fourth generation consoles (1987–1999) (16-bit)

Fifth generation consoles (1993–2006) (32 and 64-bit)

Sixth generation consoles (1998–2013)

Seventh generation consoles (2005–present)

Eighth generation consoles (2012–present)



Figure 3: Different video game consoles from left to right: Sega Dreamcast, PlayStation 2, Nintendo Gamecube, and Xbox



Figure 4: Games such as Galaxian, Galaga and Donkey Kong were popular in arcades during the early 1980s

Classifications

Casual games

Main article: Casual game

Casual games derive their name from their ease of accessibility, simple to understand gameplay and quick to grasp rule sets. Additionally, casual games frequently support the ability to jump in and out of play on demand. Casual games as a format existed long before the term was coined and include video games such as Solitaire or Minesweeper which can commonly be found pre-installed with many versions of the Microsoft Windows operating system.

Examples of genres within this category are match three, hidden object, time management, puzzle or many of the tower defense style games. Casual games are generally available through app stores and online retailers such as PopCap, Zylom and GameHouse or provided for free play through web portals such as Newgrounds.

While casual games are most commonly played on personal computers, phones or tablets, they can also be found on many of the on-line console system download services (e.g., the PlayStation Network, WiiWare or Xbox Live).

Serious games

Main article: Serious game

Serious games are games that are designed primarily to convey information or a learning experience of some sort to the player. Some serious games may even fail to qualify as a video game in the traditional sense of the term. Educational software does not typically fall under this category (e.g., touch typing tutors, language learning, etc.) and the primary distinction would appear to be based on the title's primary goal as well as target age demographics. As with the other categories, this description is more of a guideline than a rule.

Serious games are games generally made for reasons beyond simple entertainment and as with the core and casual games may include works from any given genre, although some such as exergames, educational games, or propaganda games may have a higher representation in this group due to their subject matter. These games are typically designed to be played by professionals



Figure 5: Flight Simulator X screenshot

as part of a specific job or for skill set improvement. They can also be created to convey social-political awareness on a specific subject.

One of the longest running serious games franchises would be Microsoft Flight Simulator first published in 1982 under that name. The United States military uses virtual reality based simulations, such as VBS1 for training exercises, as do a growing number of first responder roles (e.g., police, fire fighter, EMT). One example of a non-game environment utilized as a platform for serious game development would be the virtual world of Second Life, which is currently used by several United States governmental departments (e.g., NOAA, NASA, JPL), Universities (e.g., Ohio University, MIT) for educational and remote learning programs and businesses (e.g., IBM, Cisco Systems) for meetings and training.

Tactical media in video games plays a crucial role in making a statement or conveying a message on important relevant issues. This form of media allows for a broader audience to be able to receive and gain access to certain information that otherwise may not have reached such people. An example of tactical media in video games would be newsgames. These are short games related to contemporary events designed to illustrate a point. For example, Take Action Games is a game studio collective that was co-founded by Susana Ruiz and has made successful serious games. Some of these games include Darfur is Dying, Finding Zoe, and In The Balance. All of these games bring awareness to important issues and events in an intelligent and well thought out manner.

Educational games

See also: Educational video games and Educational software

On 23 September 2009, U.S. President Barack Obama launched a campaign called "Educate to Innovate" aimed at improving the technological, mathematical, scientific and engineering abilities of American students. This campaign states that it plans to harness the power of interactive games to help achieve the goal of students excelling in these departments. This campaign has stemmed into many new opportunities for the video game realm and has contributed to many new competitions. Some of these competitions include the Stem National Video Game Competition and the Imagine Cup. Both of these examples are events that bring a focus to relevant and important current issues that are able to be addressed in the sense of video games to educate and spread knowledge in a new form of media. www.NobelPrize.org uses games to entice the user to learn about information pertaining



Figure 5:*the casual game "plants zombies"*

to the Nobel prize achievements while engaging in a fun to play video game. There are many different types and styles of educational games all the way from counting to spelling to games for kids and games for adults. Some other games do not have any particular targeted audience in mind and intended to simply educate or inform whoever views or plays the game.

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