

What is a Video Game

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Abstract

The "video" in "video game" traditionally refers to a raster display device. However, with the popular use of the term "video game", it now implies any type of display device. The electronic systems used to play video games are known as platforms; examples of these are personal computers and video game consoles. These platforms are broad in range, from large computers such as mainframes, to handheld devices such as cell phones and PDAs.

Keywords: display device, platforms, mainframes, handheld devices

1 Introduction

The term "video game" has evolved over the decades from a purely technical definition to a general concept defining a new class of interactive entertainment. Technically, for a product to be a video game, there must be a video signal transmitted to a cathode ray tube (CRT) that creates a rasterized image on a screen. This definition would preclude early computer games that outputted results to a printer or teletype rather than a display, any game rendered on a vector-scan monitor, any game played on a modern high definition display, and most handheld game systems. From a technical standpoint, these would more properly be called "electronic games" or "computer games."

Today, however, the term "video game" has completely shed its purely technical definition and encompasses a wider range of technology. While still rather ill-defined, the term "video game" now generally encompasses any game played on hardware built with electronic logic circuits that incorporates an element of interactivity bonus and outputs the results of the player's actions to a display. Going by this broader definition, the first video games appeared in the early 1950s and were tied largely to research projects at universities and large corporations.

2 History

The computer games of the 1950s can generally be divided into three categories: training and instructional programs, research programs in fields such as artificial intelligence, and demonstration programs intended to impress or entertain the public. Because these games were largely developed on unique hardware in a time when porting between systems was difficult and were often dismantled or discarded after serving their limited purposes, they did not generally influence further developments in the industry. For the same reason, it is impossible to be certain who developed the first computer game or who originally modeled many of the games or play

mechanics introduced during the decade, as there are likely several games from this period that were never publicized and are therefore unknown today.

The earliest known written computer game was a chess simulation developed by Alan Turing and David Champenowne called *Turochamp*, which was completed in 1948 but never actually implemented on a computer. The earliest known computer games actually implemented were two custom built machines called *Bertie the Brain* and *Nimrod*, which played tic-tac-toe and the game of Nim, respectively. *Bertie the Brain*, designed and built by Josef Kates at Rogers Majestic, was displayed at the Canadian National Exhibition in 1950, while *Nimrod*, conceived by John Bennett at Ferranti and built by Raymond Stuart-Williams, was displayed at the Festival of Britain and the Berlin Industrial Show in 1951. Neither game incorporated a CRT display. The first games known to incorporate a monitor were two research projects completed in 1952, a checkers program by Christopher Strachey on the Ferranti Mark 1 and a tic-tac-toe program called *OXO* by Alexander Douglas on the EDSAC. Both of these programs used a relatively static display to track the current state of the game board. The first known game incorporating graphics that updated in real time was a pool game programmed by William Brown and Ted Lewis specifically for a demonstration of the MIDSAC computer at the University of Michigan in 1954.

3 Overview

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.

4 Methods/Techniques

Although departments of computer science have been studying the technical aspects of video games for years, theories that examine games as an artistic medium are a relatively recent development in the humanities. The two most visible schools in this emerging field are ludology and narratology. Narrativists approach video games in the context of what Janet Murray calls "Cyberdrama". That is to say, their major concern is with video games as a storytelling medium, one that arises out of interactive fiction. Murray puts video games in the context of the *Holodeck*, a fictional piece of technology from *Star Trek*, arguing for the video game as a medium in which we get to become another person, and to act out in another world. This image of video games received early widespread popular support, and forms the basis of films such as *Tron*, *eXistenZ* and *The Last Starfighter*.

Ludologists break sharply and radically from this idea. They argue that a video game is first and foremost a game, which must be understood in terms of its rules, interface, and the concept of play that it deploys. Espen J. Aarseth argues that, although games certainly have plots, characters, and aspects of traditional narratives, these aspects are incidental to gameplay. For example, Aarseth is critical of the widespread attention that narrativists have given to the heroine of the game *Tomb Raider*, saying that "the dimensions of Lara Croft's body, already analyzed to death by film theorists, are irrelevant to me as a player, because a different-looking body would not

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make me play differently... When I play, I don't even see her body, but see through it and past it."Simply put, ludologists reject traditional theories of art because they claim that the artistic and socially relevant qualities of a video game are primarily determined by the underlying set of rules, demands, and expectations imposed on the player.

While many games rely on emergent principles, video games commonly present simulated story worlds where emergent behavior occurs within the context of the game. The term "emergent narrative" has been used to describe how, in a simulated environment, storyline can be created simply by "what happens to the player."However, emergent behavior is not limited to sophisticated games. In general, any place where event-driven instructions occur for AI in a game, emergent behavior will exist. For instance, take a racing game in which cars are programmed to avoid crashing, and they encounter an obstacle in the track: the cars might then maneuver to avoid the obstacle causing the cars behind them to slow and/or maneuver to accommodate the cars in front of them and the obstacle. The programmer never wrote code to specifically create a traffic jam, yet one now exists in the game.

5 Conclusion

Refers to all depends on interaction of electronic media platform and run the game.Electronic game in accordance with the carrier, can be divided into the arcade games, handheld games, video games (or parts of console games, video games, and according to video game), computer games and Mobile games, or Mobile games), refers to people through the electronic equipment (such as computers, game consoles and Mobile phone, etc.) for the game.Western games tend to electronic game segmentation for Video game and auditory games, etc.

References