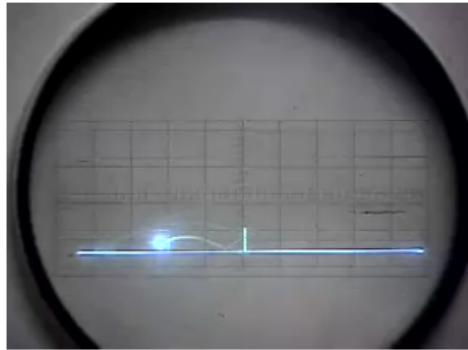


History of Video Games

Geoffrey Matthews
based on *Wikipedia* articles
Western Washington University

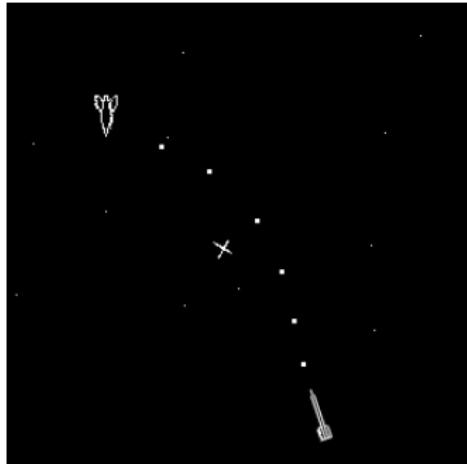
January 8, 2013

Origins



- 1947: Cathode-Ray Tube Amusement Device, Goldsmith & Mann
- 1951: Draughts (checkers), Christopher Strachey
- 1952: OXO, A.S. Douglas, EDSAC computer
- 1958: Tennis for Two, Higginbotham

The 1960s



- Many university mainframe computer games
- 1961: *Spacewar!*, Steve Russell, MIT
- 1966: *Chase*, Ralph Baer, TV display
- Ken Thompson, Multics, Unix, *Space Travel*

Circa 1970

Computer and video games split:

- Arcade machines
- University computers
- Handhelds
- Home computers
- Consoles

First Arcade Games



- 1972: Computer Space
- Bushnell & Dabney
- Each put their \$250 into Atari
- Dabney left to repair pinball machines
- Bushnell stayed & built *PONG*
- Success!
- Sued by Magnavox
- Settled for \$750,000

Golden age of arcade games



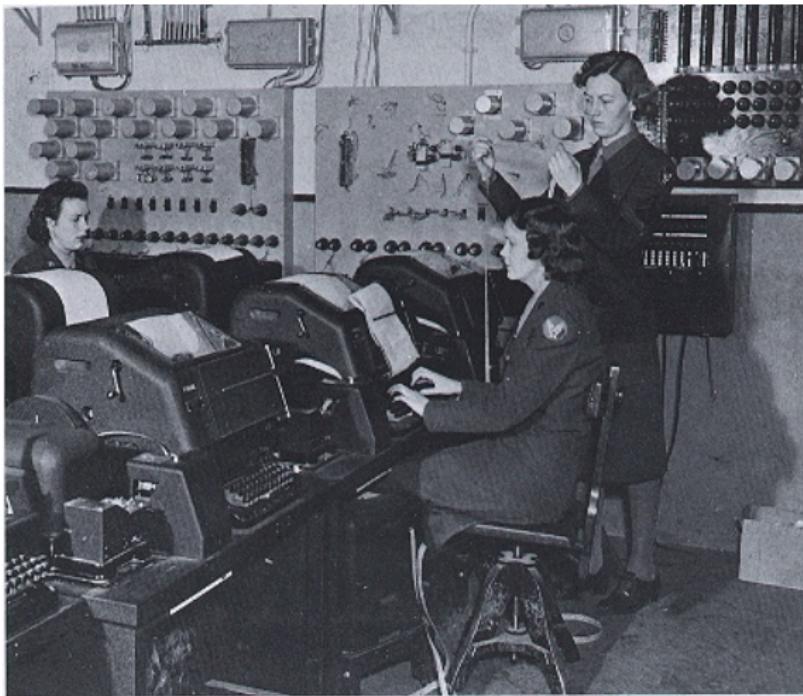
- 1971: *Computer Space* (too hard)
- 1972: *PONG*, Atari, 19,000 sold
- 1978: *Space Invaders*, Taito
- 1978: *Asteroids*, Atari
- 1979: *Pac-Man*, Namco

Golden age of arcade games



- 1981: *Donkey Kong*, Shigeru Miyamoto
- 1981: *Frogger*
- 1981: *Galaga*
- 1982: *Dig Dug*
- 1982: *Q*bert*
- 1983: *Dragon's Lair*
- 1983: *Mario Brothers*

University mainframes



WACs assigned to the Eighth Air Force in England operate teletype machines. (DOD photograph)

- Pre 1975:
Paper teletype
- Post 1975:
CRT screens

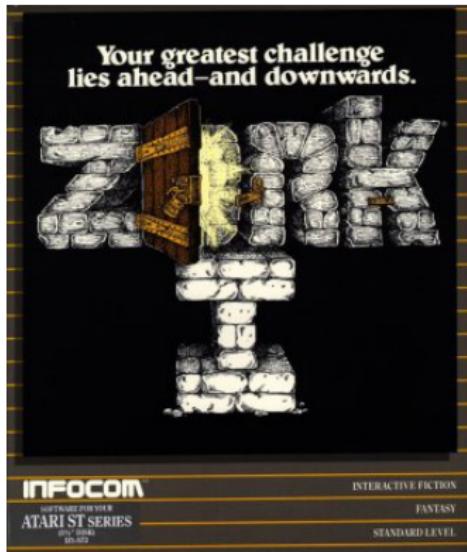
University mainframes, paper

```
quadrant          3/1      condition  GREEN
. . . . . . . .
. . . . . . . .
. . . . . . . .
. . . . . . . .
. . . . . . . .
* . . . . . * .   torpedoes    10
* . . . . . . *   energy     1815
. . . . . . .   shields    1000
. . -E- . * . .   klingons   17

command: □
```

- 1971: *Computer Baseball*
- 1971: *Star Trek*
- 1972: *Hunt the Wumpus*
- 1974: *Maze War*
- 1975: *Adventure*

University mainframes, CRT



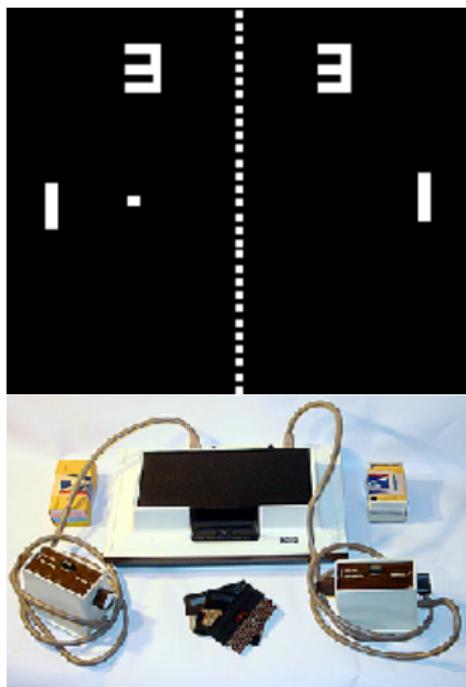
- 1975: *Dungeon*, unlicensed *Dungeons & Dragons*
- 1975: *dnd*
- 1977: *Air*, online
- 1977: *Zork*, founded Infocom
- 1980: *Rogue*, random dungeons

Early handhelds



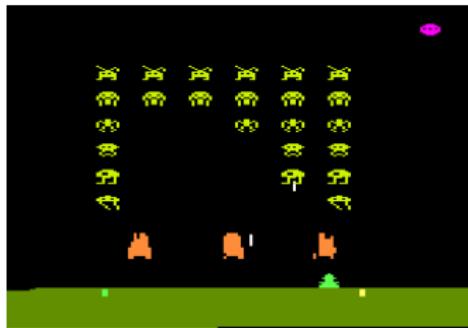
- 1972: *OXO*, Waco (Toymaker)
- 1979: *Microvision*, Milton-Bradley
- LCD wasn't available until 1980's!

Consoles: first generation



- 1951: Ralph Baer, interactive TV idea
- 1972: Magnavox Odyssey, \$100

Consoles: second generation



- 1977: Atari 2600
- 1978: Odyssey 2
- 1979: Activision, third party developer
- 1980: Intellivision (Mattel)
- Atari vs. Intellivision, first console war
- 1982: Colecovision

Video game crash of 1983

- Poor economy
- Natural market cycle
- Video games perceived as fad
- Glut of poor 2600 games
- Competition from personal computers
- Competition from arcades

Third generation, 1985-1989



- 1981: Nintendo *Donkey Kong* arcade system
- 1985: Nintendo Entertainment System (Famicom)
- Super Mario Bros.
- Owned 90% of the market
- Introduced the gamepad

Third generation, 1985-1989



- 1986: Dragon Quest
- 1987: Final Fantasy



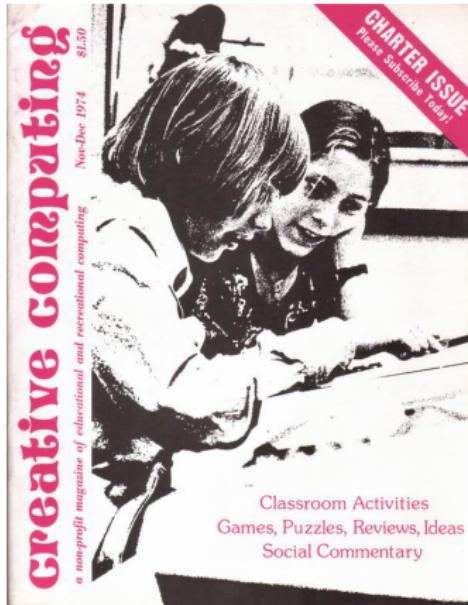
Home computers



- 1977: *Apple II*
- 1981: *IBM PC*
- 1982: *Commodore 64*
best selling computer in history
- 1984: *Apple Macintosh*



Home computer games



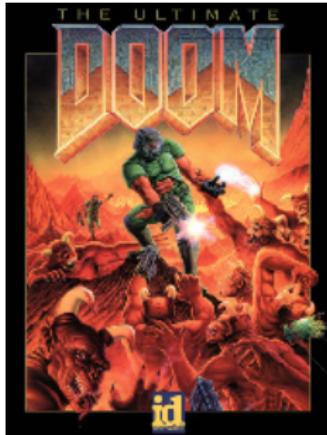
- Many clones of university & arcade games
- Source code in books & magazines
- Floppies, cassettes, ROM cartridges

Home computer games, 1980's



- 1980: *Zork*
- 1980: *Roberta Williams Mystery House*
- 1983: *Archon*
- 1983: *Pinball Construction Set*
- 1984: *King's Quest*
- 1989: *SimCity*

Home computer games, 1990's



- 1993: *Doom*, FPS
- 1993: *Myst*
- 1994: *Warcraft*, RTS
- 1996: *Quake*, internet play
- 1996: 3d accelerator cards

Decline and Rebirth of Arcades



- Home video games rival quality
- Seedy video arcades decline
- Family oriented video arcades arise
- 1998: Dance Dance Revolution

Handhelds come of age



- 1989: Game Boy
- 1990: Sega Game Gear

Fourth generation



- 1988: Sega Genesis
- 1990: SNES

Fifth generation: 3D graphics



- 1994: Sega Saturn
- 1994: Sony PlayStation
- 1996: Nintendo 64

Sixth generation



- 1998:
Dreamcast
- 2000:
PlayStation 2
- 2001:
Nintendo
Gamecube
- 2001: Xbox

Seventh generation



- 2005: Xbox 360
- 2006: PlayStation 3
- 2006: Wii

Eighth generation

- 2012: Wii U
- 2013: Playstation 4
- 2013: Xbox 720



Casual games

- Tetris: 1984
- Angry Birds: 2009

