A brief History of Videogames

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Unfortunately, this presentation seems to work only with Firefox and Internet Explorer.

Sources of images:
• mobygames.com
• webdesignerdepot.com
• the manufacturers
• ads in magazines
Prehistory

- 1962: Spacewar I

INSTRUCTIONS FOR PLAYING "SPACEWAR!":

PLAYER 1:
A ... TURN LEFT
D ... TURN RIGHT
S ... THRUST
W ... FIRE

PLAYER 2:
J ... TURN LEFT  OR 4 (NUMBER-PAD)
L ... TURN RIGHT OR 6
K ... THRUST  OR 5
I ... FIRE  OR 8

PRESS "LEFT" AND "RIGHT" TOGETHER FOR CLOAK/HYPERSPACE.

OR USE CONTROL BOXES ("GAMEPADS"). HYPERSPACE IS UP, HIT TAB ON KEYBOARD TO SWAP CONTROL BOXES AND SHIPS.
Prehistory

• 1974: Jim Bowery‘s Spasim for PLATO
• 1974: Greg Thompson’s Arpanet version of Maze Wars
• 1974: John Daleske’s Empire III for PLATO
Arcade Era

• 1971: Nolan Bushnell's and Ted Dabney's "Computer Space"
• 1972: Atari’s Pong
Arcade Era

- 1978: Tomohiro Nishikado’s Space Invaders
- 1980: Toru Iwatani’s Pac-Man
- 1980: Ed Rotberg’s Battlezone
- 1981: Eugene Jarvis’ Defender
- 1981: Shigeru Miyamoto’s Donkey Kong
Arcade Era
Arcade Era

- 1982: Williams Electronics arcade games contain custom 16-color bitmap chips
- 1985: Commodore Amiga's custom graphics chip
Console Era

- 1972: Magnavox Odyssey, the first videogame console
- 1976: Fairchild's Video Entertainment System, first console based on a microprocessor
- 1977: Atari 2600
- 1979: Milton Bradley’s handheld Microvision
Console Era

• 1983: Nintendo Famicom (later Nintendo Entertainment System)
• 1983: Crash of console market
• 1988: Sega Mega-Drive/Genesis
• 1989: Nintendo's handheld Game Boy
Game Design Era

• 1979: Activision, the first company to focus on game design
• 1982: Trip Hawkins founds Electronic Arts
• 1982: Enix founded in Japan
• 1982: George Lucas founds Lucasfilm Games
Multi-player games

- 1983: Dan Bunten's M.U.L.E.
- 1985: Island of Kesmai
MUD Era

- 1986: Randy Farmer and Chip Morningstar’s online virtual-reality game “Habitat” with “avatars”: a virtual community
Optical Media era

- 1985: The CD-ROM
- The Intel 80386 microprocessor
- 1987: PC Engine/ TurboGrafx-16
- 3D graphics
Composite Era

- Composite game: a player can use the mechanics from one genre to solve the challenges from another genre
- 1985: Super Mario Brothers
- 1985: Ghosts and Goblins
Role-playing games

- 1986: Yuji Horii’s Dragon Quest
- 1986: Shigeru Miyamoto’s Legend of Zelda
- 1989: Phantasy Star II
Open-world (sandbox) games

- 1981: Ultima
- 1984: Elite
- 1985: Ultima IV
- 1985: Mercenary: Escape from Targ
Open-world Games

- Shigeru Miyamoto’s Legend of Zelda (1986)
- Yuji Horii’s Dragon Quest (1986)
- Turbo Esprit (1986)
- Metroid (1986)
- Vette (1989)
- Mike Singleton's Midwinter (1989)
Simulation games

- 1982: Don Daglow’s Utopia
- 1989: Will Wright's SimCity
- 1989: Peter Molyneaux's Populous, first “god game”
Strategy Games

- 1981: Eastern Front
- 1982: Chris Crawford's Legionnaire
- 1989: Herzog Zwei, the first real-time strategy game
Stealth Games

- 005 (1981)
- Castle Wolfenstein (1981)
- Metal Gear (1987)
Puzzle Games

- Alexey Pajitnov's Tetris 1984
First-person shooters

• David Smith's first-person shooter The Colony (1988) with real-time rendering
The Console Wars

- 1989: Sega releases the Mega Drive/Genesis
- 1990: SNK’s Neo-Geo
- 1990: Nintendo owns a 95% market share
- 1991: Sonic the Hedgehog is the first Sega best-seller
- 1992: Sega Model 1 board pioneers polygonal 3D graphics
Virtual Reality

- 1985: Jaron Lanier founds VPL
- 1989: Nintendo's Power Glove, a wearable three-dimensional input device.
- 1990: Fakespace founded for virtual reality devices
- 1990: Scott Fisher founds Telepresence Research
- 1990: W Industries’ Virtuality system
Virtual Reality

- 1991: Virtual Research Systems’ "Flight Helmet"
- 1994: Ron Britvich's virtual world AlphaWorld
- 1993: Sega demonstrates the Sega VR in 1993
- 1995: Future Vision Technologies’ head-mounted display for the consumer market, the Stuntmaster
- 1995: The iGlasses goggles
1990

- Creative Labs’ Soundblaster Pro
- Nintendo’s Super Nintendo Entertainment System
- "GemStone III" a graphical MUD that spreads on CompuServe, Prodigy and America OnLine
1990

- The Secret of Monkey Island
- Wing Commander
- SuperMario World
- Final Fantasy III
- Commander Keen
1991

- S3 Graphics’ S3 86C911, the first graphics accelerator card
- id Software is founded
- World Wide Web
- Seiken Densetsu/ Final Fantasy/ Mystic Quest
- Sonic the Hedgehog
1991

- Sid Meier’s strategy game Civilization
- Puzzle game Lemmings
- Road Rash
- Hunter, open world
1991

- The Legend of Zelda
- Neverwinter Nights
- Fighting game Street Fighter II - The World Warrior
1992

- Silicon Graphics’s cross-platform application programming interface OpenGL
- Virtua Racing with 3D graphics
1992

- Super Mario Kart
- Mortal Kombat
- First-person shooter game Wolfenstein 3D
- Real-time strategy game Dune 2
1993

- Myst (Rand Miller), first “artistic” videogame
1993

- Sim City 2000
- First-person shooter Doom
- Virtua Fighter, with 3D graphics
- Master of Orion
1994

- The Sony Playstation
- The Sega Saturn
- Shigesato Itoi’s role-playing game Mother/Earthbound
1994

- Heretic
- Warcraft Orcs & Humans, real-time strategy game
- Tekken (3D graphics)
1995

- Nintendo's Virtual Boy console
- The first E3 is held in Las Vegas
- Microsoft’s gaming platform DirectX
- Intel’s ATX motherboard
- Distribution service Newgrounds
- The Sony DVD goes on sale
1995

- Warcraft II
- Need for Speed
- Command and Conquer
- Rayman
1996

- Gabe Newell and Mike Harrington found Valve
- Nintendo Ultra 64, the first true 64 bit game console
- 3D accelerators: 3dfx’s Voodoo Graphics, Rendition's V1000, Array Technology’s 3D RAGE
- 3D games: open-world Super Mario 64, Tomb Raider (Lara Croft debuts in Tomb Raider)
1996

- Bruce Damer's virtual-reality environments
- The MMORPG: "Baramue Nara/ Baram“ and "Meridian 59“ (cowritten/participatory nature)
1996

- Pokemon/ Pocket Monsters Red and Green
- Quake (3D) by id Software
- Duke Nukem 3D
- MAX
- Shinji Mikami's survival horror game  
  Biohazard/ Resident Evil (3D)
1996

- Arcade game Metal Slug
1997

- Intel introduces MMX chips
- The Cyberathlete Professional League, the world's first videogame sports league
- Nicola Salmoria's arcade-game emulator MAME (Multiple Arcade Machine Emulator) to preserve gaming history
1997

• Richard Garriott’s "Ultima Online“, the first MMORPG and a socio-economic experiment
• Final Fantasy VII, a role-playing game produced with a budget of $45 million
• Carmageddon
• Tekken 3
• Gran Turismo
1997

- Grand Theft Auto, open-world game
- Total Annihilation, real-time strategy game
- Age of Empires
- Quake 2
- Diablo
1998

- Sales of videogame consoles in the USA alone amounts to $6.2 billion, which dwarfs sales of videogame software on personal computers ($1.8 billion)
  - Nintendo Game Boy Color
  - Nintendo 64
  - Sony PlayStation
  - Sega Saturn
1998

• Gabe Newell & Marc Laidlaw’s first-person shooter Half Life
• Metal Gear Solid (stealth game, complex story-telling)
• Osamu Sato’s psychedelic game LSD Dream Emulator
1998

- Flight Simulator 98
- Starcraft, real-time strategy game
- Unreal
- The Legend of Zelda, Ocarina of Time
1999

- Sega Dreamcast
- Nvidia’s GPU (Graphics Processor Unit) GeForce 256
1999

- Real-time strategy game Homeworld
- Planescape Torment
- Survival horror game Silent Hill
- Yu Suzuki's open-world game Shenmue
1999

- EverQuest (second MMORPG)
- Heroes of Might and Magic III
- Lee Seungchan's QuizQuiz released for free (published by South Korea's Nexon), the first "free-to-play" (F2P) game ("freemium")
- Driver, open world
2000

- Sony Playstation 2
- Aapo Kyrola and Sampo Karjalainen launch the virtual world Hotelli Kultakala/ Habbo Hotel
2000

- Will Wright's simulation game
  The Sims
- Counter Strike
- Tony Hawk's Pro Skater 2
2001

- Microsoft Xbox
- Fumito Ueda's Ico
- BotFighters (Sweden), first location-based game
2001

- Max Payne
- Grand Theft Auto 3, open world
- Return to Castle Wolfenstein
- Halo
- Empire Earth
Alternative Reality Games

• Elan Lee’s “The Beast” (2001)
• Jane McGonigal’s “I Love Bees” (2004)
2002

- Mafia
- Diablo II Lord of destruction
- Warcraft 3
- Neverwinter Nights
2002

- The Elder Scrolls III: Morrowind (open world)
- Splinter Cell
- Dungeon Siege
- Battlefield 1942
- Baldur’s Gate – Dark Alliance
2003

- Nokia’s console / mobile phone hybrid N-Gage
- Valve’s digital distribution services Steam
- Ubi Soft Entertainment
- Riccardo Zacconi co-founds King
2003

- The MMORPG EVE Online
- Keita Takahashi ‘s “Katamari Damacy”
- Sylvia Eckermann & Mathias Fuchs’ "fluID"
2003

- Virtual reality worlds "Second Life" and "Gaia Online"
- “Second Life” in 2008: 50,000 concurrent users at any given time
2003

- Call of Duty
- Tony Hawk’s Underground
- Prince of Persia
- Max Payne 2
- Rise of Nations
2003

- Brad King and John Borland: "Dungeons And Dreamers - The Rise of Computer Game Culture from Geek to Chic" (2003)
2004

- Nintendo DS dual-screen console
- The first Major League Gaming for computer gaming is held in New York
- Facebook
- Telltale Games (episodic gaming)
- Tencent’s first game, QQ Tang (a copy of Nexon’s BNB/Crazy Arcade)
2004

- World of Warcraft
- Far Cry
- Garry Newman’s open-world game Garry's Mod/Gmod
- Kikiyama's surrealistic game Yume Nikki
2004

- Doom 3
- Grand Theft Auto San Andreas, open world
- Half Life 2
- Halo 2
2005

- Microsoft’s high-definition XBox 360
- Sony Playstation Portable
- Turner Broadcasting System’s online game service GameTap
2005

- Medal of Honor – European Assault
- F.E.A.R.
- Age of Empires 3
- Guitar Hero
- Need for Speed Most Wanted
2005

- Michael Mateas and Andrew Stern’s Artificial Intelligence-based Façade
- Fumito Ueda’s Shadow of the Colossus
- Toshio Iwai's music-generator Electroplankton
2006

- The Blu-ray disc
- Nintendo’s motion-sensitive Wii
2006

- The Godfather
- Gears of War
- The Legend of Zelda, Twilight Princess
- Elder Scrolls IV – Oblivion
- Hitman Blood Money
2006

- Prey
- Heroes of Might and Magic V
- Titan Quest
- Dwarf Fortress, open world
- Bully
2007

- Mark Pincus founds Zynga
- First-person shooter Team Fortress 2 with meta-games and virtual economy
- Halo 3
- Super Mario Galaxy
- Crysis
- Call of Duty IV – Modern Warfare
- Unreal Tournament 3
- Guitar Hero 3
2007

- Unreal Tournament 3
- The Witcher
- Guitar Hero 3
- Puzzle-game Portal
2007

- Open-world games
  - Crackdown
  - S.T.A.L.K.E.R.: Shadow of Chernobyl
  - Ubisoft's Assassin's Creed
2008

- Good Old Games (GOG) distribution service to release classic games without DRM
- Social Gaming Network (SGN) is founded to develop social games for the Facebook platform
2008

- Browser-based “social games” running on Facebook:
  - YoVille
  - David Maestri’s Mob Wars
- World of Warcraft is the most popular massively multiplayer online (MMO) game
2008

- Jonathan Blow’s "Braid“, an artistic videogame
- Puzzle-game World Of Goo
- Burnout Paradise, open world
• Grand Theft Auto IV
• Prince of Persia
• Metal Gear Solid 4
• Shaun White Snowboarding
• Command and Conquer 3 Kane’s Wrath
• Fallout 3
• Super Smash Bros. Brawl
2009

- Facebook-based social games: Farm Town and Zynga’s FarmVille
- Multiplayer online battle arena League of Legends
- Activision sells 4.7 million copies of “Call of Duty - Modern Warfare 2” on its first day
2009

- F.E.A.R. 2
- Alan Wake
- Starcraft 2 Terrans: Wings of Liberty
- Diablo 3
- Hidetaka Miyazaki's Demon's Souls
2010

- Microsoft's Kinect, a motion sensing input device for the Xbox
- Digital distribution service Desura
- Activision sells 5.6 million copies of “Call of Duty - Black Ops” on its first day
2010

- Markus Persson’s Minecraft, the first hit of indie games
- Angry Birds, the first blockbuster of iPhone videogaming
- Booyah's location-based "My Town"
- Playdead’s Limbo
2010

- Heavy Rain
- Super Mario Galaxy 2
- Mass Effect 2
- Amnesia The Dark Descent
2010

• Open-world
  – Red Dead Redemption
  – Mount & Blade: Warband
  – Just Cause 2
2011

- Justin Kan founds Twitch.tv
- Game-streaming service OnLive
- Revenues from F2P games overtake revenues from premium games on mobile devices
2011

- Davey Wreden’s post-modern videogame The Stanley Parable
- Skylanders Spyro's Adventure, the first augmented-reality hit
- Puzzle game Candy Crush Saga
2011

- Portal 2
- Bastion
- Kerbal Space Program
2011

- Open-world
  - Minecraft
  - Batman: Arkham City
  - The Elder Scrolls V: Skyrim
Indie Games

- 2010: Super Meat Boy
- 2011: Jamestown
- 2012: Defender’s Quest
2012

- Dear Esther
- Dishonored
- Xenoblade Chronicles
- Spelunky
2012

- Nicklas Nygren’s freeware Knytt Underground
- FTL: Faster Than Light (Kickstarter-funded)
- Supercell Oy's "Clash of Clans", a F2P
- Euro Truck Simulator 2, open world
2012

- Assassin's Creed III
- Walking Dead
- Journey
- XCOM: Enemy Unknown
- Puzzle-game FEZ
2013

- Sony's PlayStation 4
- Microsoft's Xbox One
- Julie Uhrman's OUYA, an Android microconsole funded via Kickstarter
2013

- Naughty Dog’s The Last of Us (ethical videogame)
- BioShock Infinite
- Gone Home
- IceFrog's multiplayer online game Dota 2 (published by...
2013

- Alexander Bruce's puzzle game Antichamber
- Don't Starve
- Arma 3
- Lucas Pope's Papers Please
2013

- Open-world
  - Grand Theft Auto V
  - Saints Row IV
  - Assassin's Creed 4: Black Flag
2014

- Amazon acquires gaming studio Double Helix Games and live streaming video platform Twitch
- Nintendo's worst year - emergence of mobile gaming
- #Gamergate: shame on videogames (attacks on Zoë, Brianna Wu, well, Anita Sarkeesian)
2014

- Aviator
- 80 Days
- Destiny
- Persona Q: Shadow of the Labyrinth
- Bayonetta 2
2014

- Mario Kart 8
- Middle-Earth: Shadow Of Mordor
- Dragon Age: Inquisition
- Dark Souls II
- The Vanishing of Ethan Carter
2014

- Open-world
  - Subnautica
  - Far Cry 4
  - Elite: Dangerous, open world
2015

• Nvidia's game streaming service Grid/ GeForce Now
• Sony’s game streaming service PlayStation Now/ PS Now
• Nvidia’s Shield console
• Gaming's top 25 public companies generate revenues of $54 billion
2015

- Sunless Sea
- Prune
- Nintendogs
- JustCause 3
2015

Boom of open-world games

- The Witcher 3: Wild Hunt
- Mad Max
- Westerado: Double Barreled
2015

Boom of open-world games

- Fallout 4
- Sunless Sea
- Metal Gear Solid V: The Phantom Pain
2015

- Toby Fox's Undertale
- Davey Wreden’s post-modern game The Beginner's Guide
- Bloodborn
- MidBoss' 2064 Read Only Memories
2016

- Niantic’s augmented-reality Pokémon Go
2016

- Sean Murray’s self-generating universe No Man's Sky
- Starbound
- Firewatch
- Forza Horizon 3, open world
- Dialogue-less Inside
2016

- Stardew Valley
- Superhot
- No Man’s Sky
- Final Fantasy XV
- Hitman
2016

- Overwatch
- Titanfall 2
- Doom
- Dragon Quest Builders
- Uncharted 4: A Thief's End
2016

- Jonathan Blow's puzzle game The Witness
- The Last Guardian
- Tharsis
- Thumper
- Dishonored 2
BEST SELLING VIDEO GAME SUPER GENRES OF 2016
BY UNITS SOLD

- 27.5% Shooter
- 22.5% Action
- 11.7% Sports
- 7.8% Adventure
- 12.9% Role-Playing
- 5.8% Fighting
- 4.3% Strategy
- 4.1% All Other
- 3.3% Racing

Source: The NPD Group/Retail Tracking Service/Digital Games Trackingservi

AVERAGE GAMERS BY AGE GROUP

**MALE**
- Under 18 years old: 18%
- 18-35: 17%
- 36-49: 11%
- 50+: 13%

**FEMALE**
- Under 18 years old: 11%
- 18-35: 10%
- 36-49: 8%
- 50+: 13%
2017

• Nintendo's Switch console (a "hybrid" device)
2017

- Fortnite (Epic Games)
- The Legend of Zelda: Breath of the Wild
- NieR:Automata
- Persona 5
2017

- Night in the Woods
- Gorogoa
- Cuphead
- Divinity: Original Sin 2
- Hellblade: Senua's Sacrifice
2017

- What Remains of Edith Finch
- Super Mario Odyssey
- Resident Evil 7: Biohazard
- Yakuza 0
2018

• Google's videogame streaming service Project Stream
2018

• … in progress…
• Kingdom Come: Deliverance, open world
(nominated for future inclusion)

- Koronis Rift (1985)
- Takeshi's Challenge (1986)
- Pirates! (1987)
- Darklands (1992)
- Magic Carpet (1994)
- System Shock (1994)
- Penn & Teller's Smoke and Mirrors (1995)
- Creatures (1996)
- 1996 Crash Bandicoot
- 1997 Oddworld: Abe's Oddysee
- 1999 System Shock 2
- Black & White (2001)
- 2005 God of War
- 2006 Okami
- Spore (2008)
- 2008 Little Big Planet
- 2009 Flower
- 2012 Hotline Miami
www.scaruffi.com

Did I miss something?
www.scaruffi.com/email.html

See also
Luke Muehlhauser  "A Critical History of Videogames"
http://www.listology.com/story/critical-history-videogames