Chapter 1.1
A Brief History of Video Games

PPT content from "Introduction to Game Development"

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Overview

- **Filmaker history study Orson Welles & Citizen Kane,**
  - » **Film more successful but Video Games are catching up.**
- **Shigeru Mihamoto's**
  - » **Donkey Kong**
  - » **The Legend of Zelda**
- **Time Line Approach**
- **Other:**
  - » **http://en.wikipedia.org/wiki/History_of_video_games**

First Patent & TV History

- **1947 – Thomas Godsmith, Jr. & Estle Ray Mann filed a patent described as**
  - » **"Cathode Ray Tube Amusement Device"**
    - – **Interactive, simulate firing of air-borne targets**
- **http://inventors.about.com/od/tstartinventions/a/Television_Time.htm (television history, 1831 electronic communication, 1862 first transmission of a still image, 1880 Bells photophone to transmit sound, 1900 "television", 1924 moving silhouette images)**

Early History

- **1949-1950 First Bouncing Ball program, not interactive.**
- **1952 Graphical Tic Tac Toe by AS Douglas to demonstrate human computer interaction.**
  - » **EDSAC computer, player competed against a computer.**

The First Video Games

- **William Higginbotham and *Tennis for Two***
  - » **Created in 1958 for the Brookhaven National Laboratory's annual visitor day**
  - » **Display was an oscilloscope (side view)**
  - » **Game ran on an analog computer**
  - » **Sound effects were a side-effect of the relays that made the game run**
  - » **No one realized its significance**
  - » **Knob for trajectory & button for**
  - » **gravity controlled ball.**

First Video Game …

- **Steve Russell and *Spacewar***
  - » **Created in 1961 at MIT for the DEC PDP-1 computer**
  - » **2 player, maneuver spaceship while trying to shoot other player with torpedoes**
  - » **Switches to control game**
  - » **Hugely popular within MIT**
  - » **Required prohibitively expensive equipment ($120K)**
  - » **Eventually shipped as a diagnostic program with PDP-1s**
  - » **1969 ARPANET**

Games for the Masses

- **The Advent of Home Video Games: Ralph Baer and the Magnavox Odyssey**
  - » 1966, initial idea for a game machine that would work on home TVs
  - » Created a shooting game and ice hockey game
 - » Sold to Magnavox in 1972

Games for the Masses

- **Breaking Into the Amusement Business: Nolan Bushnell and Atari**
  - » Engineering major at the University of Utah
  - » Background in coin-operated amusement devices
  - » Tried to bring *Spacewar* to arcades as *Computer War*

Games for the Masses

- **Bringing Games to the Masses**
  - » **Atari founded by Nolan Bushnell in 1972**
  - » **Brought *Pong* to arcades**
  - » **Sued by Baer and Magnavox**
  - » **Paid a one-time license fee of $700,000**
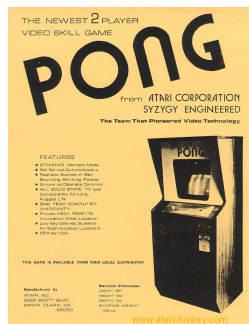
The Console Kings

- **Atari and the 2600**
  - **Atari VCS (1600) released in 1977**
  - **Not quite the first cartridge-based home system**
  - **Open architecture allowed easy development**
  - **First to introduce licensing of a system**

The Console Kings

- **Nintendo and Shigeru Miyamoto**
  - » **Released *Donkey Kong* arcade machine in 1981**
  - » **Released Nintendo Entertainment System in 1985**
  - » **During late 80's Nintendo owned 90% of the market**

The Console Kings

- **Sega**
  - » **Created in 1952 in Japan to sell amusement games on US army bases (Service Games)**
  - » **Released the popular Sega Genesis in 1990**
  - » **Final console was 1999's Sega Dreamcast**
  - » **Now dedicated to software**

The Console Kings

- **Sony's PlayStation**
  - » **Created out of an aborted attempt to launch a CD-ROM based system with Nintendo**
  - » **Released PlayStation in 1994**
  - » **PlayStation 2 released in 2000, maintaining backwards compatibility with hugely popular PS1**
  - » **PS3 and PSP current**
  - » **(ATARI Jaguar (1993) cartridges, stick in CD into cartridge**

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The Console Kings

- **Microsoft and the Xbox**
  - » **Xbox released in 2001**
  - » **Based on a PC-like architecture**
  - » **Initially significant money lost on each console sold**
    - − **Foothold in living rooms world wide**
  - » **Halo and Halo 2 are its most popular games**

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Home Computers

- **Apple Computer**
  - **Founded by Steve Jobs, Steve Wozniak and Mike Markkula in 1976**
  - **Apple II was released in 1977**
  - **Revolutionized the home computer market**
- **Commodore**
  - **Commodore Vic-20 Released in 1981**
  - **Low price and shrewd marketing lead to success**
  - **Commodore 64, released in 1982, became the best selling computer in history**
- **IBM**
  - **IBM PC introduced in 1981**
  - **Moderate pricing helped it gain a foothold in the business world**
  - **BIOS licensing model backfired on them, allowing cheap clones to enter the market**

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The Designers

- **Maxis and Will Wright**
  - » *SimCity* **released in 1989**
  - » **Other** *Sim* **games followed (***SimAnt***, ***SimCopter***)**
  - » **Maxis becomes part of Electronic Arts**
  - » **Released** *The Sims* **in 2000**
  - » *The Sims* **has sold more than 6 million copies so far**

http://www.ted.com/talks/lang/en/
will_wright_makes_toys_that_make_worlds
.html

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The Designers

- **MicroProse and Sid Meier**
  - » **Founded by Sid Meier and "Wild Bill" Stealey**
  - » **Concentrated on strategic simulations in early years**
  - » *Sid Meier's Pirates!* **in 1987 was Sid's first signature game**
  - » **Genre-defining** *Railroad Tycoon* **and** *Civilization* **followed**

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The Designers

- **Sierra and Ken and Roberta Williams**
  - » **Created first graphical adventure game,** *Mystery House* **in 1980**
  - » **Great success followed with** *King's Quest* **series,** *Police Quest* **series, and** *Leisure Suit Larry* **series**
  - » **Published** *Half-Life*

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The Designers

- **Origin Systems and Richard Garriott**
  - » Created the *Ultima* series
  - » In 1997 created *Ultima Online,* one of the first Massively Multi-Player Online Role-Playing Games
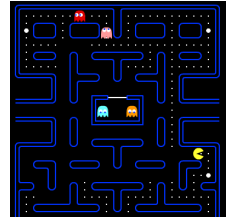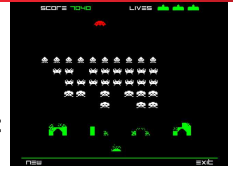 - » Studios disbanded in 2000 by EA

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The Phenomenons

- *Space Invaders*
  - » Introduced to the US in 1978
  - » First big Japanese success
  - » Introduced the "High Score" list to video games
- *Pac-Man*
  - » American debut in 1981
  - » Attempt to create a completely non-violent game
  - » Generated $100 million in sales during its lifetime

The Phenomenons

- **The Tangled History of *Tetris***
  - » Created by Russian programmer Alexy Pa[ ] in 1985
  - » Became a pop culture sensation
  - » Helped drive the success of Nintendo's Game Boy
- **Capcom and *Resident Evil***
  - » Capcom founded in 1979
  - » Created *Street Fighter, Mega Man* and *Resident Evil*
  - » *Resident Evil* has spawned 15 variations and sequels as well as two Hollywood movies

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The Phenomenons

- **Square and *Final Fantasy***
  - In 1987 released *Final Fantasy* as a last-ditch effort to stave off bankruptcy
  - 15 games have been released since then, selling more than 40 million copies
  - Computer-animated Hollywood movie released in 2001
- **Cyan and Myst**
  - Created by Rand and Robyn Miller
  - Released in 1993 on the Apple Macintosh
  - Helped popularize the CD-ROM drive

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The Phenomenons

- **Pokémon**
  - » Created by Japanese video game enthusiast Satoshi Tajiri
  - » *Pokémon Red* and *Green* released for Nintendo Game Boy in 1996
  - » Movies, TV series and multiple sequels have followed
- **The Rise and Fall of the Video Game Mascot**
  - » Early mascots helped sell game systems
  - » Mascots are seemingly less popular now
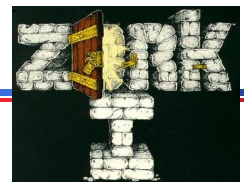 - » Over-exposure and an aging audience may be explanations for this trend

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The Studios

- **Activision and Infocom**
  - » Activision founded by former Atari programmers
  - » Lawsuit by Atari created the "royalties" system still employed by console makers today
  - » Merged with Infocom and gutted it
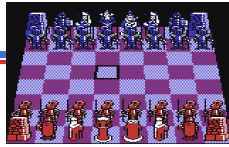 - » Still a strong player today

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The Studios

- **Electronic Arts (EA)**
  - » **Created by Trip Hawkins in 1982**
  - » **Revolutionary business plan did three things**
    - – Creative talent treated like artists
    - – Creation of in-house tools to aid cross-platform development
    - – Handle own distribution
  - » **Now the largest game software company in the world**

The Studios

- **Interplay**
  - » **Formed in 1983**
  - » **First big hit was *The Bard's Tale* in 1985**
  - » **Famous for their CRPGs, including *Wasteland, Fallout, Baldur's Gate, Baldur's Gate II: Shadows of Amn***
  - » **Since de-listed from the NASDAQ**

The Studios

- **LucasArts**
  - » **Formed in 1982 as an offshoot of LucasFilm Ltd.**
  - » **Released *Maniac Mansion* in 1987**
  - » **Created strong history of adventure games and Star Wars universe games**

The Studios

- **Blizzard**
  - » **Started in 1991 by Frank Morhaime, Allen Adham, and Frank Pearce.**
  - » **Released one of the seminal Real-Time Strategy games, *Warcraft*, in 1994**
  - » **Their latest release, the MMORPG *World of Warcraft*, has become the fastest selling PC game in history**

The Studios

- **id Software**
  - » **Formed on February 1, 1991**
  - » **Successfully utilized Apogee's shareware formula**
  - » **Created the defining first-person shooter with *DOOM***

Genres

- **Adventure**
  - » **Sub-genres include text-based adventure and graphical adventure**
  - » ***Zork* by Infocom**
  - » ***King's Quest* by Sierra**
- **Action**
  - » **Superset of all other action-oriented genres**
  - » **Typified by fast-paced combat and movement**
  - » ***Spacewar, Pong,* and *Space Invaders* helped define the genre**

A Genres

- **Action-Adventure**
  - » Adventure games with action elements
  - » The Legend of Zelda was first break-out hit
  - » *Jak 3, Metroid Prime 2 Echoes,* and *Resident Evil 4* are modern examples of the genre
- **Platformer**
  - » Typified by a character running and jumping in a side-scrolling playing field
  - » *Super Mario Bros., Sonic the Hedgehog, Pitfall!* and *Super Mario 64* are examples

Genres

- **Fighting**
  - » Players typically fight other players or the computer using swordplay or martial arts
  - » *Double Dragon* is an example of a side-scrolling fighter
  - » *Virtua Fighter, Mortal Kombat,* and *Street Fighter* are examples of versus fighters, where the players fight each other
- **First-Person Shooter**
  - » Action game where player is "behind the eyes" of the game character in a first-person perspective
  - » id Software's *Wolfenstein 3D* and *DOOM* are the earliest popular examples

Genres

- **Real-Time Strategy (RTS)**
  - » Typically, a game in which the goal is to collect resources, build an army and combat the other player or computer
  - » Popularized by Westwood's *Dune 2* and *Command and Conquer* and Blizzard's *Warcraft*
- **Turn-Based Strategy**
  - » Like real-time strategy games, but turn-based
  - » *Civilization, X-COM, Master of Orion,* and *Jagged Alliance* are standouts of the genre

Genres

- **Role-Playing Game (RPG)**
  - » The video game counterpart to pen and pencil games like Dungeons and Dragons
  - » *Final Fantasy, Baldur's Gate* and *Wasteland* are some popular examples of the genre
- **Massively Multiplayer Role-Playing Game (MMORPG)**
  - » An RPG set in a persistent virtual world populated by thousands of other players
  - » *Ultima Online* in 1997 was the first popular one
  - » *World of Warcraft* is currently the most popular one

Genres

- **Stealth**
  - Characterized by a focus on subterfuge and planned-out, deliberate play
  - *Metal Gear* in 1987 was one the first
  - Popular modern series include *Metal Gear*, *Splinter Cell*, and *Thief*
- **Survival Horror**
  - An action-adventure or first-person shooter where survival elements and a fight against the undead are stressed
  - *Resident Evil* is easily the most popular series in this genre

- **Simulation**
  - » Based on the simulation of a system
  - » *SimCity* and *The Sims* are example of "God" simulations where you control the lives of a town or a family
  - » *Wing Commander* and *X-Wing* are popular space combat simulation games

Genres

- **Racing**
  - » Games that involve competing in a race in a vehicle
  - » Typically try to re-create a real-world activity
  - » *Pole Position* was first popular racing game
- **Sports**
  - » Games that simulate the sporting experience
  - » Breakouts include *John Madden Football* and *Tiger Woods' Golf*

Genres

- **Rhythm**
  - » Gauge player's success based on the ability to trigger the controls in time to the beat of music
  - » Sometimes require specialized controllers such as dance pads or bongo drums
  - » Konami's *Dance Dance Revolution* is the pre-eminent title of the genre
  - » Rock Band & Guitar Hero

Genres

- **Puzzle**
  - » Games that combine pattern matching, logic, strategy and luck with a timed element
  - » *Tetris* is the breakout hit of this genre
- **Mini-Games**
  - » Short, simple games that exist within the context of a larger game
  - » *Mario Party* and *Wario Ware* are popular examples of this genre

Genres

- **Traditional**
  - Computerized versions of board, word, and card games
  - *Battle Chess* and the *Hoyle* series are standouts of this genre
- **Educational**
  - Games designed to teach grade-school concepts to children and young adults
  - Oregon Trail was the first popular game in this genre
  - The *Carmen Sandiego* series and *Mavis Beacon Teaches Typing* are more modern popular examples

Genres

- **Serious**
  - » A game designed to teach real-world events or processes to adults
  - » Most are privately funded
  - » Popular with the US Government and the medical field

Chapter 1.2
Games and Society

Why Do People Play Video Games?

- Goals
- Stages
- Real-Time Interaction
- Facilitating Community

Audience and Demographics

- What good are demographics?
- Are they always accurate?

Audience and Demographics: ESA 2003 Survey Results

- Provides broad brushstrokes
- Snapshots of a particular place and period of time
- What information stands out?
  - » 50% of all Americans play games

Audience and Demographics: ESRB

- EC   (Early Childhood)
- E   (Everyone)
- E10+   (Everyone 10+)
- T   (Teen)
- M   (Mature)
- AO   (Adults Only)
- 32 different "Content Descriptors"

Audience and Demographics: ESRB 2003 Statistics

- 57% of games received an E rating
- 32% of games received a T rating
- 10% of games received an M rating
- 1% received an EC rating

Audience and Demographics: ESRB 2003 Statistics (2)

- 70% of best-selling console games were E or T rated
- 90% of best-selling PC games were E or T rated
- Buying habits or development habits?

Societal Reaction to Games

- Misleading perception of games as being child's play
- Violence in video games drawing parental attention

Societal Reaction to Games

- Legal Issues: *Night Trap* (1992)
  - » Undue attention given quality of the game
  - » Content comparable to a B-grade slasher movie
  - » Misleading press reports about the player's role

Societal Reaction to Games

- Legal Issues: *Mortal Kombat* (1992)
  - » Featured quasi-realistic violence
  - » Virtual gouts of blood
  - » Home release drew attention where the arcade release was largely ignored

Societal Reaction to Games

- Legal Issues: 1993 Senate hearings
  - » Industry was called to the carpet
  - » Threatened with government regulation
  - » Created a 12-point plan for self-regulation
  - » Birth of the ESRB

Societal Reaction to Games

- Legal Issues: *Doom* (1994) and the 1999 Columbine Massacre
  - » Shooters were known to play *Doom*
  - » Lawsuits were initiated against the industry, but eventually dropped

Societal Reaction to Games

- Legal Issues: *Grand Theft Auto: Vice City*
  - » Haitian-American Rights Groups protest game content, launch Federal case
  - » Rockstar Games changes game content
  - » Lawsuit moved to Florida courts in hopes of a stringent ruling

Societal Reaction to Games

- **Legal Issues: St. Louis County Ordinance**
  - » **Ordinance was passed regulating game access**
  - » **Lawsuit filed by the ESA**
  - » **Judge upheld ordinance specifying that video games did not contain speech**
  - » **Ruling was over-turned**

Societal Reaction to Games

- **Games and Youth Violence**
  - » **Current studies on games and youth violence are not flawed and not definitive**
  - » **How does one define "violence" in the context of video games?**

Societal Reaction to Games

- **Root of All Evil, or Good, Old-Fashioned Fun?**
  - » **Games are seen as meaningless fun**
  - » **Games are also seen as a troubling source of youth violence**
  - » **Are these views contradictory?**

Cultural Issues

- **Worst…Stereotype…Ever**
  - » *Shadow Warrior* **(1997) lampooned Asian cultures and stereotypes**
  - » **Japanese-American community wasn't amused**
  - » **Risk of offending market**

Cultural Issues: Foreign Diplomacy

- **Germany**
  - » *The Index* **– List of banned games**
  - » **Partial list of controversial elements**
    - – *Nazi Iconography*
    - – *Red Blood*
    - – *Extreme violence*

Cultural Issues: Foreign Diplomacy

- **China**
  - » **Controversial elements**
    - – **Changing Historical Facts**
    - – **Recognizing the sovereignty of disputed territories**

Cultural Issues: Foreign Diplomacy

- **Japan**
  - » **Controversial elements**
    - − **Sex**
    - − **Violence**
  - » **Surprisingly, not controversial**
    - − **EA's *Medal of Honor: Rising Sun*, a game that depicted the Pacific campaign in WWII**

Cultural Issues: Cultural Acceptance

- **The rules are . . . there are no rules**
  - » **Violence and sex may lead to a game being banned**
  - » **. . . Or they may not**
  - » **Past bans may be the only accurate predictor of what game types are truly objectionable to a specific culture**

Society Within Games: Online Behavior

- **The Good**
  - » ***Everquest* Weddings**
- **The Bad**
  - » **Addictive properties**
  - » **Online rivalries becoming offline rivalries**
  - » **Can games contribute to erratic offline behaviors?**
- **The Ugly**
  - » **Disinhibition and deindividuation occur because of perceived anonymity.**
  - » **Crimes**

Society Within Games

- **Tools**
  - » **Moderators**
  - » **Communication tools**
  - » **Fan sites to discuss gameplay and community outside of the game**