* What is videogame and interactive media?
* Wait, what’s a game? What makes a game?
* “An activity taken part in for amusement” OED 4th ED
* “An experience created by rules” – Anna Anthropy
* “an activity which is essentially: free (voluntary) separate, uncertain, unproductive, governed by rules, make-belief” – Roger Caillous
* “all games share four defining traits: a goal, rules, a feedback system, and voluntary participation” – Jane Mcgonigal
* <http://libguides.uvic.ca/gaming>

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Space War! – first video game, out of MIT on the ptp1.

The first popular games (1960-1975)

* + Amusement business, came out of Chicago, controlled by the mob for a long time
  + Machine prone to breakage
* Computer Space and Galaxy Game
  + Arcade machines,
* Atari, 1972
  + Pong
    - Taking $200 a week, where a coin-op was about $50
    - Much clearer gameplay than Computer Space, satisfying sound when you hit the ball.
  + Atari grew with laid-back management style. Casual dress, different from existing engineering world, “utopian meritocracy”
  + Atari later tried to expand to Japan, no one was interested in playing “western” games
  + 1975: Pong sells 150K to home market. Plug it into your television. First console?
* Microprocessors and Home consoles
  + Apple II: color, Woz designed to play games like Breakout.
  + Infocom: Zork I and other adventure games
  + Sierra: Also did adventure games, had graphics to go along with games. Lasted longer than Infocom.
  + Flight simulators, still popular today.
  + Tabletop Wargames, 1981
    - Laid out tabletop, with a war theater
    - Rules intense and very specific
    - Chris Crawford, “Fog of War” concept invented
  + Roleplaying Game
    - Ultima
* First Consoles
  + Magnavox Odyssey, 1972, first console.
    - Different games by putting different screens on top of the TV
    - Atari Video Computer System, 1977
      * Missed Christmas window due to manufacturing delays, wasn’t promoted well.
  + Most consoles only did mediocre.
  + Space Invaders, heavily influenced by Gunfight
    - Took Japan by storm, ran Japan out of 100 yen coins
    - Released in States in 1978 by Valley Midway,
      * Revenue 478m in 1978, 1.7b in 1979, mainly due to Space Invaders.
  + Atari 2600 bundled Space Invaders, thus most well known today.
* Started with Space Invaders, 1982 US video game revenue 5.3m/year
  + “Arcade locations were like Starbucks back then – literally everywhere” – Scott Miller
* “The media, in particular, was amazed by players who could actually beat the games. It was the perception of “man versus machine” that made many news stories so intriguing to the public.” – Walter Day
* **Vector graphics**
  + Vectorbeam developed by Larry Rosenthal in mid-70’s
  + Atari turned Rosenthal down
  + Space War sold 10k cabinets through Cinematronics.
  + Tim Skelly develops Tailgunner and warrior, popular at the time
  + Vector graphics produced resolutions of 1064x728 rather than raster, which was 320x240
  + Vector graphics allows for quick and smooth 3d rotations, whereas raster graphics does not.
    - Today, endures in SVG format
  + Atari releases Lunar Lander in 1979, Astroids in 1797
    - Astroids is Atari’s single biggest hit, second most popular game in 1979, after Space Invaders.
* **Colour Graphics**
  + First major color graphics is Galaxian by Namco, a modest improvement on Space Invaders
  + Atari releases Missile Command and Tempest to compete shortly after.
* Defender by Eugene Jarvis
  + a “sperm game” (something testosterone driven, terrified and exhilarated in equal measure)
  + high-energy and punishing difficulty
  + 60K units sold, bringing in 2500 quarters per week
  + Had 5 buttons, used reverse and thrust to add the “drift” effect on the camera, to give players context
* Pac-man
  + Very opposite of Defender
  + Developed by Toru Iwatani
  + Wanted to make a game that women – and thus couples – would enjoy.
  + Became one of the best-selling games, and the best-known characters of all time.
  + Used Kawaii imagery (think Hello Kitty) to draw in people.
  + Random coin-op machines popped up in the US because of the popularity of Pac-man. “Defender was popular. Pac-man was out of the stratosphere.”
  + Ghost behavior: Chase, Scatter, and Fright. Chase and scatter alternates. Difficulty increases as “chase” increases in frequency and “scatter” decreases
    - Blinky (red) goes for Pac-man’s current location, increases speed by 5%.
    - Pinky (pink) targets 4 tiles ahead of Pac-man,
      * Bug: Pac-man looks up, pinky targets both 4 spaces up and left.
    - Inky (blue) targets double the vector drawn from Inky’s position to two tiles in front of Pac-man
    - Clyde (orange) further than 8 tiles from Pac-man: blinky. Closer than 8 tiles: scatter.
  + Atari/Namco 1978 licensing deal gave Atari exclusive console rights to Pac-Man.
  + Sold 12m units, plus many more Atari 2600’s
  + Pulled into commanding lead ahead of Intellivision (lead competitor at the time.)
* Activision
  + Rebellion at Atari:
    - Four developers making 30K a year when they were netting Atari 60M a year in revenue
  + Split from Atari to become the first third-party developers.
  + Atari attempted to Sue, but left license wide-open, the courts sided with Activision.
  + Many other companies followed suit, undercut the revenue of Atari.
* **What could possibly go wrong?**
* Warner spent 75m advertising Atari in 1982
  + More than both Coca-cola and McD combined in that year on their respective brands
  + Atari sales were 5X of film and music within Warner
  + 70% of all warner profits came from Atari
* **The Bubble Bursts**
  + Atari earning call 7 Dec 1982
  + Slashed fourth quarter earnings from 50% gain to 10-15% gain, despite ET
  + Warner shares fall 30%.
  + Why?
* Economics
  + US coming out of bad recession, unemployment at 10%
  + Bad debt on arcade machines with the rapid growth of the industry
  + VCR released 1982, 500K sold in first quarter in 1982, 1m in 1984. Became the de-facto piece of in-home entertainment
    - Much more user-friendly system for less technically-astute folks
* Quality
  + Challenge/difficulty spiking due to gowing player proficiency
  + Shovel-ware diluted pool of quality games
    - Johnson & Johnson tooth protectors
    - Chase the Chuckwagon (terrible)
    - Custer’s Revenge
  + Atari 5200 release was too little too late
    - Waited too long on release
    - Repackaged Atari 400, a home computer
* Competition
  + Colecovision packaged with Donkey Kong, first game designed by Shiguru Miyamoto
  + Home computers became less expensive, (2x cost of console) and had lots more software.
  + “Every possible game had been invented and all creativity was exhausted.” – Eugene Jarvis, developer of Defender
* Fallout
  + 1983 was a terrible year for VG’s
  + Dragon’s lair the single bright spot
  + Consoles peaked at 3,200m in 1983, and were at 100m in 1986.
  + Atari never recovered.
* ----- Not on midterm -----
* Promogames
  + Advergames mentioned earlier:
    - J&J Tooth protectors
    - Chase the Chuckwagon
    - Meant to advertise a brand
  + Promogames include Burger King, Sneak King games
    - Reached a disaffected audience, cynical towards advertising
* **Empathy in Games**
* ET gameplay emphasizes the weakness of ET
  + Difficult to read terrain
  + Levitation only permits the possibility of being hunted
  + The film was about alienation, not about aliens.
* “Hush” and “Darfur is Dying” are more contemporary “serious game” examples.
* Hiroshi Yamauchi
  + President of Nintendo 1949-2002, started at 20
  + Nintendo was a hanafuda playing card company
    - Huge contract with Walt Disney in 1959, made hanafuda cards featuring Disney characters on it.
    - Checked out US Playing Card Co. in Cincinnati
  + Yamauchi wanted to make Nintendo a global company
  + Began experimenting with toys after discovering limitations in the Playing card industry
* Gunpei Yokoi
  + Chief engineer at Nintendo
  + Invented the Ultra C Hand, Nintendo’s first toy.
  + Invented the Game and Watch, Game Boy, and Virtual Boy
    - Game and Watch started with a bored businessman playing with a pocket calculator on a business trip
  + “Lateral thinking of withered technology”
* Shigeru Miyamoto
  + Still Chief Creative Director at Nintendo
  + Hired by Yamauchi in 1977 as an apprentice in the planning dept
  + Designed a number of toys before Donkey Kong
  + Possibly one of the first and most successful “designers”
* Nintendo Early History
  + Yamauchi takes control at 1949, at age 29
  + Color TV Game 6 released in 1977 at the height of Pong excitement in Japan
  + Game & Watch (Gunpei Yokoi) released in 1980
  + Planned cartridge-based home console launch in 1982-1983, just as the industry was collapsing in the US
* Game and Watch
  + Ball was the first title in 1980
  + Released 60 titles over 1980-1991
  + D-pad first appearance in 1982 with Donkey Kong
  + Paved way for Game Boy and Nintendo’s continued dominance of the handheld market
* Famicom
  + Released July 1983 in Japan
  + Sold 500k units by September 1983
  + Was so popular that Nintendo couldn't keep up with demand for games
  + Created licensing scheme for developers and publishers
    - Licensing was very strict, carts were manufactured exclusively by Nintendo.
    - Publishers had to pay upfront for manufacturing of carts, and thus the risks of publishing a game
    - Nintendo reserved veto rights for games and limited third-party companies to 5 titles a year.
    - Strict licensing scheme prevented shovelware problem that Atari had.
  + 17 licensed from Famicom developed by 1985
* Birth of the Japanese RPG
  + Henk Rogers, American ex-pat, avid D&D player
  + Developed and launched The Black Onyx in 1984, for home computers. A typical American RPG
  + Initial launch was a complete failure
    - Distributer purchased too few games, and thus had too few games to sell
    - People did not understand the game as D&D did not make its way across the pacific yet
  + Subsequently sold 10k copies per month after hand-holding magazine editors through the opening gameplay.
    - The magazine Reviews that came out were overwhelmingly positive, and turned the title around.
* Dragon Quest
  + Dragon Quest, designed by Yuri Horii, released in 1986
  + Reinforces the Nihonjinron theory.
  + Colourful, kawaii-inspired art, text inspired by haiku
  + Controls and systems slimmed down for Famicom
  + 2m copies sold
* Final Fantasy
  + FF designed by Hironobu Sakaguchi, releasedin 1987
  + Last ditch effort, thus “final” fantasy
  + Much darker than Dragon Quest
  + Spawn one of the best-known and enduring JRPG franchises.
* The Legend of Zelda
  + Released by Nintendo, 1986
  + Wanted to make a game that let others experience what he experienced on JRPGs as a kid.
  + Phantasy Star, Sega 1987
  + Mother, Nintendo 1989
  + Dragon Quest III, 1988, sold 1m on launch day
    - Caused publishers to no longer release games on school days, there were 382 arrests for truancy and many more cases of shoplifting
  + Much more of an action RPG than a traditional JRPG. Miyamoto thought that JRPGs were too dark.
* CES 1984
  + Nintendo introduced the Advanced Video System to CES, nobody wanted to touch it.
  + Amiga was the clear winner that year
  + Amiga was originally built as a gaming machine, and was redesigned after the crash
    - Later acquired by Commodore
  + AVS hardward acknowledged as powerful, but no one wanted to buy it.
* CES 1985
  + Redesigned AVS into the NES
  + Adopted Japanese licensing scheme
  + Developed two gimmicks – the light gun and ROB
  + CES and focus groups were still unmoved
  + Nintendo recognized that, despite the crash, kids and people were still playing games, and thus there is still a market
  + Nintendo of America was ready to give up, Yamauchi bankrolled $50m for NoA to break into one city. They chose New York.
* Christmas 1985
  + NoA Team focused exclusively on bringing NES to market
  + Christmas Eve 1985 had NES for sale in 500NY stores, mostly on a money-back guarantee for retailers.
  + 90k sold
* Super Mario Bros.
  + Released March 1986
  + Remains one of the top selling games of all time, around 40m sold
  + Packaged with NES system
  + Number 1 selling toy of 1987 despite tight production control
    - Nintendo didn’t want price-slashing that happens with excess supply
  + Single-handedly revitalized console industry
* Licensing and Controls
  + Developers rush to sign-up, despite strict rules
  + Established zero-bug tolerance
  + Adopted a set of rules similar to Hays Code and the Comics Code of Hollywood
    - Bans sex, drug use, positive portrayal of criminals, etc.
    - Caught on to what destroyed Atari and did not make the same mistake
* Continued Success
  + By 1989, 23% of all toys sold in the US were a Nintendo Product
  + NP had a circulation of 5m
  + NP also had a helpline, where you could call in for help on games.
* Early Criticism
  + Eugene Provenzp Jr., prof of education at Univ of Miami

Video Kids, criticized portrayal of gender and violence in 47 top-selling NES games, publishing in Oct 1991

* + Accused Nintendo of promoting aggression, and sexist and racist stereotypes
* Europe
  + Difficult road for Nintendo due to greatest interest in home computers
    - Home consoles never big in Europe, people preferred home computers much more.
  + Licensing model scared off many European developers
  + Sega provided stiffer competition in Europe than in NA
  + Game Genie developed by Codemasters
    - Cheating service, 5b sold. Subscription service also for new codebook every 3-4 months
    - Nintendo took legal action against Galoob, Game Genie stopped selling in the States, but not in Canada.
  + Rare, established by Chris and Tim Stamper
    - Game studio, did GoldenEye
    - Reverse engineered the Nintendo and took full advantage of hardware
    - Eventually acquired by Nintendo
* Super Mario Bros. 3
  + Released Feb 1990
  + The Wizard, released late 1989
    - Feature-length movie that featured Nintendo
  + 17m copies worldwide, grossed $500m
  + Design comeback for Miyamoto and

Bishojo games

* + Koei released Night Life in 1982, a computerized sex guide. Hugely successful
  + Spawned the bishojo genre “pretty girl”
  + Defined by content rather than gameplay
    - Yaoi – boy’s love
    - Yuri – girl’s love
    - Bara – men’s love
    - Ren’ai – dating sims
    - Eroge – sexually explicit
    - Life sims
* Controversy
  + 177 released in 1986, goal was to rape teenage girls. Condemed by the National Diet (Japan’s Parliament)
    - Reference to Section 177 of criminal code
    - Ethics Organization of Computer Software formed
    - Similar to ESRB
  + Otaku Murder in 1989 – serial killer targeting 407 yo girls
  + Equality Now launched in 2009, campaign against RapeLay. t
  + Bishojo has influenced other Japanese developers – Dead or Alive Xtreme Volleyball
* ---Midterm cutoff
* Titillation
  + Japan’s comfort level with media depictions of sexual acts is very different from the west
  + Western development it’s more common to find innuendo or short sex scenes – some more pornographic than others
    - GTA3 San Andreas – “Hot Coffee” mod
    - Lara Croft nudity mod
    - Mass Effect/Dragon Age
  + Leisure Suit Larry is one of the few sex-related games to reach any level of popularity or renown
* Will Wright
  + Born 20 Jan 1960
  + Raised in Atlanta and baton Rouge
  + Obsessed with model making and robots
  + Interested in artificial intelligence and simulation due to interest in writing simulations for home-brew robots
  + Very interested in internal models of players that they form when playing his games.
* Raid on Bungeling Bay
  + Released on C64 in 1984
  + Goal was to use advanced features on C64 not available on Apple II
  + Rampart piracy on C64 – only 20-30k sold, but played widely
  + One of the first games licensed to Nintendo, sold about 1m units in Japan
* World-Building
  + Wright began playing around with Raid on Bungeling Bay level editor and found that it was fun just to build cities
  + At first, just a toy, soon became more elaborate as Wright researched urban planning.
  + Discovered Jay Forrester, first person to simulate a city on a computer
  + Combined Forrester’s ideas with living system of Conway’s Game of Life to bring world-building tool to life
* Conway’s Game of Life
  + Created by mathematician John Conway in 1970
  + Complexity from simple rules
    - User set initial state
    - Live cells with 2 or 3 neighbors survive
    - Live cells with fewer than 2 neighbors die, as do those with 4 or more neighbors
    - “dead” cells with 3 live neighbors come back to life.
* Inspirations
  + Conway’s Life
  + Jay Forrester’s System dynamics
  + Montessori school
    - Inspire, rather than educate
    - Self-directed learning is powerful
  + MacPaint – tools and canvas with no limitations
* Is it Fun?
  + Wright thought Raid on Burgeling Bay level-editor/toy could be a game, but one that would only to specialists
  + A charicature of how a city works
  + No defined goals; Wright wanted it to be a toy
  + Formed Maxis with Jeff Braun
  + SimCity publiched by Broderbund in 1989 – five years after Wright first began experimenting with Raid’s editor
  + SimCity went against the grain of other games that were popular at the time. No one wanted to publish it.
* Yes!
  + Following Time magazine review in 1990, sales for SimCity soared
  + Appealed to many game fans who were not interested by NES, action/violence, or arcades
  + Sold better and better, year after year
  + Some claimed bias in the system – Wright claims this is the most valuable piece of SimCity as it fostered discussion about the inherent assumptions
* Legacy
  + Spawned a series of SimCity games on multiple platforms, each release increased complexity
  + Other sim-type games released, many were commercial failures
  + EA acquired Maxis in 1997, when it was in a creative slump
  + The Sims released 2000. Best selling computer games of all time, Revitalized Wright’s and Maxis’ reputation
  + Spore, released 2008, sold well, criticized for being too ambitions.
  + Wright left to form Stupid Fun Club, an entertainment “think tank” in 2009
  + SimCity MMO released 2013. Poor launch management, forced multiplayer, online only, and DRM hampered success. Despite this, the game sold over 2m copies.
* Spore
  + A toy based on Drake’s equation
  + Released in 2008 after over 7 years in development
  + Reviewed well, but criticized for lack of gameplay depth
  + Admired by some scientists for encouraging players to think about evolutions, etc, but much of the “science” was incorrect and possibly misleading
* Peter Molyneux (molinew)
  + Born may 5 1959 in Guildford, England
  + Wanted to become a successful businessman
  + First entered industry with The entrepreneur, a business sim in 1980
  + Many early ventured ended in failure
* Bullfrog
  + Through a case of mistaken identity, Molyneux’s company Taurus ended up with free Amigas shipped from Commodore.
  + Decided to move to video game development and changed company name to Bullfrog
  + First original game was Fusion, published by EA in 1988
  + Sold poorly, but advance from EA was sufficenet to fund Bullfrog’s next project
* Populous
  + Started out as an isometric pictograph developed by programmer Glenn Corpes
    - Isometric pictograph gives illusion of depth despite being a 2D game.
  + Molyneux tried adding people with pathfinding, as he was not a programmer, he failed miserably
  + Decided instead to allow player to pick the people up with mouse cursor
  + Released by EA in 1989
* Success!
  + Populous reviewed extremely well in game mags,
  + Surpassed all expectations and was a multi-million seller across the world
  + Hugely popular in Japan
  + Molyneux was suddenly a well-known and respected game designer, credited with creating the “God game” genre.
* Legacy
  + A small number of Populous sequels developed over the 90s
  + Molyneux became a VP and consultant to EA in 1994. EA purchased Bullfrog in 1995
  + Molyneux left EA to form Lionhead in 1996, which developed Black and White and Fable serie
  + Lionhead acquired by EA in 2006
  + Molyneux left Lionhead in 2012 with 21 other former employees to form 22Cans
  + Currently working on the god game Godus, billed as a spiritual successor to Populous, currently available on Steam early access as a beta release
* Sid Meyer
  + Born Feb 24, 1954 in Sarnia, Ontario
  + Founded MicroProse in 1982, built a name developing military-themed simulations
  + Interest in history lead Meier to develop Pirates! In 1987
    - Open world pirate sim
  + After discovering SimCity and Populous, Meier decided to develop a game about a civilization’s journey through history
  + “A game is a series of interesting choices”
* Civilization
  + Turn-based strategy game
  + Bring a small tribe from nothing to a great world power, and beyond
  + Had a narrative quality, more so than SimCity and Populous
    - Looking at the game from a historical prospective
  + Mechanics – especially tech trees – were a significant influence in many subsequent games
* Legacy
  + Eight further Civ games, plus numerious expansions, as well as board and card games.
  + The best-known and most influential in the 4X game genre.
  + Firaxis games founded by Meier in 1996, developed most Civ games
    - Firaxis acquired by Take-Two Interactive in 2005
* Open-ended Play
  + Together, SimCity, Populous, and Civ help define the new genre of open=ended play
  + Most popular games to that time had been very action-orientated
  + Heavily influenced a new generation of designers
  + Bought the concept of design-auteur to the fore
* SEGA
  + Roots traced back to Service Games, founded in Honolulu in 1940
  + Eventually moved company to Tokyo in 1951
  + Developed coin-op jukeboxes, games and slot machines and imported to military bases in Japan
  + Merged with Rosen Enterprises (chain of over 200 arcades) in 1965. New name derived from **SE**rvice **GA**mes.
  + Sega sold to Viacom to 1969. Went public as a wholly owned subsidiary in 1972.
* Early Success
  + Sega had success in the early coin-op market
    - Frogger (Konami)
    - Star Trek
    - Zaxxon
  + SubRoc3d – first true 3D game – released just prior to crash in 1982
  + Sega Master System found success in UK, Australia, NZ, Brazil, first home based console.
* Megadrive
  + Superior hardware compared to to NES
  + Met with apathy when launched in Japan in 1988
  + Launched in Na in 1989 as the Sega Genesis
  + Sega relied on a library of existing coin-op games to port to the Genesis
* Marketing
  + Sega decided to take more aggressive marketing stance in an effort to beat Nintendo
  + Tried to position Genesis as a console for teenage boys who had ‘graduated’ from Nintendo
* Character licenses
  + Sega decided t0 go for character licenses to give Genesis more marketing clout
  + 5 year deal with Joe Montana for $1.7m
  + hired Mediagenic (Activision) to develop it
  + Flagship Christmas game of 1989
  + Activition couldn’t deliver, and Sega was on the hook
* EA to the rescue
  + EA founder Trip Hawkins’ goal was to develop “authentic sports simulations.”
  + John Madden Football flopped on Apple II
  + EA agreed to use some existing assets to release a version of Joe Montana Football, for Sega
  + Released in Jan 1990
* John Madden Football
  + Sega deal allowed EA to reboot John Madden Football
  + Moved towards realistic arcade action, and away from simulation
  + Madden involved closely in design; one-on-one confrontations a central tenet
  + Seminal sports game released in 1990
    - Probably because they saved all the good stuff from Joe Montana to release
  + Biggest selling sports game franchise of all time, nearly 100m in lifetime sales
* Sonic the Hedgehog
  + Result of internal competition to develop a mascot to match Mario
  + Yugi Naka was dissatisfied by missing skill component in Super Mario Brothers
  + Speed over-riding theme of Sonic
  + Released in June 1991, ahead of Super NES launch
  + Rocketed Sega into lead ahead of Nintendo
* Post NES era
  + Many developers scared off by Nintendo’s license model went to Sega
  + Sega developed a strong brand and strong sports line
  + Super NES sold 4m consoles within one year of November 1990 launch
  + By 1992, Sega owned 55% of market, the rest was Nintendo.

The Battle for Exclusives

* + “Exclusives” became the determining factor in purchasing a new console.
  + Super NES:
    - The Legend of Zelda: A Link to the Past
    - Super Metroid
    - Super Mario World
    - Street Fighter II
  + Sega
    - Ecco the Dolphin
    - Gunstar Heroes
    - Mcdonald’s Global Gladiators
    - Earthworm Jim
* New 16-bit consoles meant more power, and thus more assets, and thus larger teams and bigger budgets.
* Branding
  + What is branding?
  + “Brands are build around values, aspirations, experiences, history, and ideas”
  + Bogost claims that brands can add “contemporary social values” to a game

Joe Lieberman

* + Born Feb 24, 1942
  + Politician, US senate in 1988 as a democrat
  + Accused of being more conservative than many Republicans
  + Co-wrote “kill switch bill” that would grant president emergency powers over the internet
  + Has claimed he agrees more with democrats on domestic policy and more with republicans on foreign policy
* Ban on Violence
  + Lieberman wanted a complete ban on violent video games
  + Introduced to violent content in video games by an aide in his office
  + Instigated a public inquiry after seeing Mortal Combat and Night Trap
* Mortal Kombat
  + Arcade release in October 1992
  + Developed by Ed Boon and John Tobias of Midway
  + Intended to compete with SF II
  + Huge hit in the arcades
  + Ported to consoles in 1993, combination of storyline, character, and violence made it a major success
* Fatalities
  + Blood and gore were highly controversial
  + But nothing more so than the fatalities
  + Each character had a special “finishing move” meant to reward the winner and humiliate the loser.
  + Germany Banned in 1994
* Night Trap
  + Also released in October 1992, for Sega CD
  + Originally developed for the NEMO
  + Goal is to protect a group of girls at a slumber party from vampires
  + Gameplay involves setting traps for vampires
* Congressional Hearings
  + Took place in late 1993, follow up in 1994
  + Nintendo, Sega, software associations, and arcade vendors associations were all represented
  + Eugene Provenzo Jr. testified, based on his research
  + Sega was willing to implement a age-rating system; Nintendo wasn’t interested.
  + Super NES cut out all of the blood from Mortal Kombat in order to avoid controversy
* Developer Reaction
  + Boon and Tobias didn’t think that the violence would bother anyone
  + Rob Fullop (Night Trap) had a more difficult time
    - Worried about the message video games were sending kids
    - Believed that the “failure” culture of video games could be damaging
      * Failure culture: trying and failing, trying and failing, over and over again
    - Created Dogz, which spawned the Petz series
      * possibly the first “freemium” game: released for free, food runs out in 2 weeks. $20 for a lifetime supply.
* Outcomes of the hearings
  + Closed as inconclusive, Representatives asked to return to report on formation of a ratings board
  + Leading game companies quit the Software Publishers Association and formed Interactive Digital Software Association, (later renamed to the Entertainment Software Association)
  + The Entertainment Software Ratings Board (ESRB) was announced July 1994
  + The ESRB actually made it easier for developer and publishers to released release violent content
  + Industry learned two things:
    - Lobbyists in Washington was absolutely necessary.
    - Controversy sells
  + ESRB is not legally binding in any way, retailers only “encouraged” to follow guidelines. Half of Canada have laws against it.
* Midterm
  + Next Thursday
  + Replay chapters 1,2,3,5,6,7,8,12,13,15,17,18,19,20,21\*,23\*,24\*
  + Chapters 7 and up heavy
  + Multiple choice, true/false, fill in the blank, short answer questions
  + Cheat sheet – 8x10 single sided
  + Content covered in class important
* CD-ROM
  + An evolution of LaserDisc technology
  + Compact disc had been around in one form or another since the mid-70s
  + Sony developed the first erasable and writable CD-ROM drive
  + Adoption in the music industry helped push down the cost, PC manufacturers started installing CD-ROM drives in new PCs
* Multimedia PC Standard
  + The recommended configuration for a PC with a CDROM drive
  + Estabilished by the Multimedia PC Marketing Council – a working group of the SPA
  + First Standard, set in 1991
    - 16 Mhz 386SX CPU
    - 2MB ram
    - 30 MB hD
    - 266 color, 640x480 VGA video card
    - CDRom drive, 40% CPU for Read, <1 Sec seek time
    - Sound card, outputting 22khx, 8 bit sound
    - Windows 3.0 with Multimedia Extensions
* Early 90s PC Gaming
  + Wing Commander, 1990
  + Star Wars, Rebel Assault, 1993
* Rand and Robyn Miller
  + Developed *The Manhole* when they couldn’t find any interesting software for Rand’s daughter
  + Interactive book that echoed *Alice and Wonderland*
  + Released by mail-order in 1988
  + Rereleased by Activision in 1989 for the CD-ROM
* Myst and Riven
  + Goal to build narrative into the environment
  + Goal of a completely open – set on an island to create natural boundaries
  + Desire to change the “die and start over” paradigm
  + Gameplay is puzzle based
    - No goals, no objectives. Exploration encouraged right off the bat.
* Success!
  + Biggest selling PC game of all time, until *The Sims* in 2002 eclipsed it.
  + 12m copies sold worldwide
  + CD-ROM “killer app”, resulted in many clones
  + Highly praised by critics, evidence that video games could be an art form.
* Hollywood Games
  + Nyst spawned a resurgence o finterest in film-video game crossovers
  + Resulted in games like *Gabriel Knight* and *Phantasmagoria*
    - Phantasmagoria later banned in Australia and Singapore
  + Known as “Interactive movies”
  + Eventual back-lash due to game design restrictions
* Virtual reality and 3D
  + VR research hit its stride in the early 90s
  + Game dev was pushing to create 3D worlds in games
  + 3D objects created using polygons
  + 3D math is relatively easy; the question is whether or not hardware is powerful enough
* Dactyl Nightmare
  + Developed by Virtuality
  + One of the first commercially available arcade VR games
  + $65K per machine
  + Players generally disappointed by the results
* Oculus Rift
  + Consumer version to be released late this year or early next year
  + Kickstarter-backed, plus gained VC funding
  + Sold to Facebook for $2B
  + Wider FOV than competitors; first-mover advantage
* ID Software
  + Formed in 1991 by John Romero, John Carmack, Tom Hall and Adrian Carmack
  + Agreement with Apogee software to develop shareware games
  + *Commander Keen* released in Dec 1990
  + Successful enough to lead to formation of Id Software.
* 3D Technology
  + Texture mapping pioneered in 1974
  + Technological improvements by John Carmack permitted its use in real-time
  + Meant developers were no longer limited to flat coloured polygons
  + First commercial appearance in Wolfenstein 3D. Made Id into a top-tier developer.
* *Doom*
  + Released December 10, 1993
    - Came out day after the Congressional hearing on videogame violence
  + Not true 3D, but perceived as such.
  + Innovated on many fronts: graphical, lighting, audio, multiplayer aspects, textures
  + Pushed violence further than it had gone before
  + Story was intentionally paper thin
* Legacy
  + Doom was sold with a level editor
  + The impetus for the modding industry
  + Id licensed their 3D engine to other developers
  + Keys to make the FPS the dominant genre in the late 90s to 2000s
* Playstation
  + Released December 3, 1994 in Japan, Sept 1995 in NA and Europe
  + Part of the 5th Generation of consoles (most 5th gen consoles had 32-bit architecture)
  + 32-bit consoles sporting 3D graphics capabilities and CD-Rom media
  + Originally a collaboration between Nintendo and Sony
  + Announced at CES in 1991, Nintendo dropped Sony the next day for Phillips
* 3DO interactive Multiplayer
  + Founded by Trip Hawkins
  + First released in fall 1993, discontinued by late 1996
  + A series of specs that could be licensed by 3rd party manufacturers
  + High price ($699) and market saturation was 3DO’s downfall
* Atari Jaguar
  + Released in late 1993 in NA; a year later in Japan and the EU
  + Derided for it’s complex controller
  + A complete commercial failure, was not successful in signing on 4rd party developer
  + Failure forced Atari out of the console business entirely
* Sega Saturn
  + Released late 1994 in Japan, 6 months later in NA
  + The successor to the Sega genesis
  + Primarily a 2D machine with some 3D capabilities
  + Launched early in US in an effort to beat Sony, couldn’t capitalize on the opportunity
* *Virtua Fighter*
  + Developer by Yu Suzuki of Sega
  + Released November 1993
  + Every character is made entirely of polygons
  + Inspired by earlier Suzuki game, *Virtua Racing*.
* *Tomb Raider*
  + Developed by Core Design in the UK
  + Originally designed as a male Indiana Jones type character
  + Had never been a popular female character before
  + More adolescent fantasy than feminist icon
  + Sold 7-8m copies on PlayStation alone
    - Sony marketed Tomb Raider heavily with some of their $2b advertising budget
* Girl Power
  + Associated with third-wave feminism (ie, 1990s to present0
  + Phrase primarily popularized by the Spice Girls, but had been used previously by members of the riot grrrl movement
  + Gained momentum around the same time *Tomb Raider* was released
  + Increased awareness within the industry of growing “female demographic”
  + Following year, GDC had 5 sessions (full, of course) on selling games to girls
* Barbie Fashion Designer
  + Released in 1996
  + The first sales breakthrough that proved games could appeal to a female audience
  + …”a version of feminity that is fundamentally lame…”
  + Perpetuated the “pink” game genre
* Purple Moon
  + Founded by Brenda Laurel in 1995
  + Goal to create games for girls ages 8-12, to create content that would get girls in front of computers
  + Found success with *Rockett’s new school* and *Secret Paths in the Forest*, after release of Barbie Fashion Designer
  + Game were more or less visual novels that focused on core values by young girls
  + Purple Moon purchased by Mattel in late 90s
* Femicom
  + Estabilished fairly recently
  + Simultaneously a critique of game ulture and an archive of “girly-games”
  + Goal is to attribute values to many of the games we think of as “pink”
  + History of modding games to change main characters from male to female
* The Effect of Tomb Raider
  + Popularity of Tomb Raider and Lara Croft pushed games further in the mainstream
    - People realized that games weren’t just being played by 10 year olds
  + Developed responded by making games targeted at older players
  + ESRB and its rating system made this easier
  + New, more mature video game genres were introduced
* Horror
  + Technology limited what was possible in terms of scaring players
  + *The Rats*, a subversion of the adventure game genre
  + *Alone in the Dark*, a 3D PC game set in a mansion in the 1920s
* Resident Evil
  + Influenced by *Sweet home*, an early Japanese 2D horror game
  + Released in 1996
  + Well known for its camp, cliché, and generally poor voice acting
  + Introduced zombies into the survival horror genre
* Survival horror Conventions
  + What defines the survival horror genre?
    - Resource scarcity
    - Low-light conditions
    - Zombies (!)
    - Sometimes puzzles, sometimes less focus on combat, sometimes mystery
  + Weird catch-22: early survival horror games relied on limitations of technology to create suspense. Today, hardward is a lot more advanced, suspense has to be added artificially, decreasing authenticity
* Resident Evil 4
  + Changed paradigm of survival horror
  + Zombies moved more quickly, shifted genre to more action-based
* Stealth
  + Early games include *Castle Wolfenstein* and the Japan only release of *Metal Gear*
  + Genre defining games included (all released in 1998)
    - Metal Gear Solid
    - Thief: the Dak Project
* Stealth conventions
  + AI can detect player using multiple senses
  + Opportunity to hide/cover
  + Silent attacks/takedowns
  + Often espionage-related themes
  + Many games employ stealth elements, although not being stealth games per se
* Sony’s Dominance
  + The PlayStation was the platform with games, and it continued to dominate
  + Nintendo’s N64 was released in 1996, but couldn’t catch Sony, despite the success of *Super Mario 64*
  + Sega capitulated and stopped manufacturing the Saturn in 1998
* Super Mario 64
  + Held back on N64 launch until *Super Mario 64* was ready. Miamoto wanted to wait
  + First truly open 3D platform game; more successful than *Crash Bandicoot*
  + Emphasis on exploration
  + Heavy influence on all 3D open world games to follow
* Nintendo’s Mistake?
  + Elected to go with Cartirdges for the N64
  + Square Enix wanted *Final Fantasy VII* to be released on CD
  + Long time partnership between Square Enix and Nintendo dissolved.
  + *Final Fantasy VII* released as an exclusive for the PlayStation
* Habituation
  + “all the best games are easy to learn and difficult to master. They should reward the first quarter and the hundredth.” – Bushnell’s law
  + “Each game must have an exciting, relevant theme and be easy enough for most people to understand. Finally, each game should be so sturdy so that it could be played time and time again, without wearing out.” – George Parker, Parker Bros.
  + habituation builds on prior conventions
  + similar to Will Wright’s ideas on gameplay “models”
  + “easy to learn” is misunderstood – mechanical simplicity is less important than conceptual familiarity.
* Habituation and traits
  + Is “difficult to master” desirable?
  + This appeals primarily to a game’s depth – implying that it cannot be completely understood in a small number – or perhaps a finite number – of sessions.
  + Idealized mastery may be undesirable for most players.
  + Casual play often purports to provide relaxation, for the player to “zone out,” this has little to do with mastery
  + Bogost suggests “catchiness” as an alternative
  + “with games, we embody catchiness by playing again, for specific reasons”
  + easy to learn might be good – but conceptual understanding is better
  + Mastery works only rarely – consider the number of chess grandmasters compared to chess players
* Multi-User Dungeon
  + More commonly called “MUD”
  + Released in 1980, considered the first virtual world
  + Influenced by *Adventure*, the late 80s text adventure game
  + Initially designed and coded by Roy Trubshaw, completed by Richard Bartle, while at the U of Essex.
* Richard Bartle
  + Born Jan 10, 1960
  + PhD in AI
  + Has worked both as a dev (on MUD and other MMOs)
* Bartle’s Types:
  + Achiever: interested in beating the game and amassing concrete evidence of success
  + Explorer: Explorers like to push boundaries, look for hidden places and easter eggs.
  + Socializer: enjoy interacting with others, the game is at tool to form social connections
  + Killer: thrive on competition, prefer fighting other players to scripted events.
  + Created Bartle’s test to determine your type
    - Criticized because of categorical framework, very black and white.
    - Later expanded to 8 categories, but no test for it.
* Development of MUD
  + Trubshaw intended to build a virtual world with no objectives other than to explore
  + Bartle pushed for more game-like elements
  + Trubshaw agreed when it became clear he didn’t have the computing power to build a fully functioning world
  + Bartle eventually took over completely; Trubshaw stepped back to focus on his agree. Added *D&D* conventions like treasure hunting, levels, and chaining of goals.
* Online social Interaction
  + Freedom to socialize in an alternative reality was an important element of MUD
  + To some extent players had the ability to define the world through action
  + The players can always leave if the game is developed in a direction that does not suit them
    - First instance of veto power held by the players, developers were not always in control
  + One of the first “live” products
  + Lots of words like “newbie” and “griefer” are coined in MUD gameplay
* Rise in Popularity
  + U of Essex decided to test British Telecom’s Experimental Packet Switching System (EPSS)
  + Bartle used EPSS to share MUD with other institutions in the UK and the US
  + U of Essex also permitted off-campus computer users to log in and use their systems, so lots of off campus usage as well
* Clones and spin-offs
  + MUD eventually came to refer to any text-based multiplayer virtual world
  + Original MUD was free and freely distributed – as per Bartle’s and Trubshaw’s goals
  + However, clones were both for-profit and free to play
  + Most famous was *AberMUD*, built on Unix so highly popular in universities (built on UNIX)
* The MUD/MOO Split
  + *AberMUD*’s popularity resulted in an explosion of game-focused clones
  + Players looking for a more social atmosphere split from the MUYD community
  + The result was the MOO – MUD Object Orientated
  + MOOs dropped game conventions such as score and level in favour of social and creative activities
* Network Access
  + Network access in the 1980s was rare and expensive
  + Most networks charged hefty up front costs and a high hourly rate
  + Each network was separate and user could only access the games, software, etc. available on that specific network.
* Quantum Link
  + Quantum Link was a network exclusively for Commodore 64 owners; $4/hour to access
  + RabbitJack’s Casino was developed by Rob Furlop (Night Trap)
  + Goal to keep players online for as long as possible, engineered so players won a lot more than real casinos,
* Habitat
  + Designed by Chip Morningstar of Lucasfilm Games
  + A persistent virtual world of 20K single screen locations
  + Like a theme park, with many varied activities
  + Hoped to eventually reached up to 20K user simultaneously
  + Quest content wasn’t sufficient, Lucasfilm gave players more tools and freedoms, lawlessness resulted
  + Shut down for becoming too successful, could have brought down Quantum Link’s servers.
* Other Titles
  + Neverwinter Nights – graphical RPG; $4-$8 an hour
  + Modem Wars – robot themed war games
  + The Sierra Network – 30K users at $2/hour
* Ultima Online
  + EA bankrolled an early prototype for the project
  + Beta test in 1996, 50K people signed up to participate. Immediately became the most important property of EA
  + Used subscription service model, popularized by Meridian 59.
  + Hired a full-time community manager based on research into other online communities
  + Released in September 1997, still active today.
* Discord in Britannia
  + 250K players at peak in 2003
  + Similar problems as those that plagued Habitat
  + Lawlessness, including thieving, banditry, murder, extortion, etc.
  + Players completely destroyed the delicate ecosystem by killing easy to kill rabbits, resulting in the wolves dying off, etc…
  + Eventually resorted to creating an in-game jail, and a reputation system so griefers were easily spotted
* Everquest
  + Next popular mainstream MMO released after Ultima Online
  + Released early 1999, still active today
  + 450K subscribers by 2003
  + More directed than Ultima Online, more quest-based objectives
* Prominent MMOs
  + Lineage
  + Asheron’s Call
  + Final Fantasy XI
  + Dark Age of Camelot
  + Eve Online
  + Guild Wars
  + Club Penguin
* WOW
  + Released late 2004
  + Built off of established brand – Warcraft
  + Softened the steep learning curve found in Eaverquest and Ultima Online
  + Fully quest-driven experience, cut down on PVP by increasing restrictions
  + 10m subscribers in 2009
  + 20K PCs running 13,250 copies of the game, 2,396 customer support personnel and 451 people exclusively building new content
* Economics of virtual worlds
  + The sale of virtual items using real-world currency is common in many MMOs
  + Edward Castronova published researched on the economics of EverQuest, Norrath had a GDP equal to 77th on the world stage in 2001
  + In 2004 the global trade in virtual goods was worth $100M
  + Gold farming common in many MMOs by 2008
* Second Life
  + A Spiritual success to LambdaMoo
  + Completely open-ended, users can create their own objects and build their own “homes”
  + Users permitted to sell their creations on an open market
  + LindenLabs generated revenue by selling land in Second Life (necessary for any building projects) and maintaining the Lindex – a Linden;/US dollar currency exchange.
* Korea’s Reinvention
  + Japan annexed Korea in 1910, set about dismantling Korean history and culture
  + North Korea and South Korean established after Japans’ defeat in WWII
  + South Korea banned the importation of any Japanese games; black market reigned
  + Period of rapid growth early 90s resulted in large uptake of PCs and prompted IT firms to start developing games.
  + Gamers accustomed to pirating or black market prices were adverse to paying for video games, so many early attempts failed.
* Online Games for Profit
  + The solution to monetizing games and avoiding piracy was to bring games online
  + Jurassic Park – text-based MUD released in 1994 side-stepped the piracy issue
  + More successful games included The Kingdom of the winds in 1996, a MUG (multi user Graphical Mud)
* Recession and Growth
  + Loss of confidence in the Thai Baht caused the SEA economy to contract
  + Many unem[ployed opened “PC bangs”, internet gaming cafes
  + Large subsidies available of internet companies to encourage growth
  + In 1998 over 3k PC bangs in operation in South Korea, and over 15K in 1999 due to subsidies
* Starcraft
  + 9.5M copies of StarCraft sold worldwide, 4.5M in Korea alone
  + TV stations began broadcasting matches
  + Korea’s World Cyber Games drew 50K people to watch live, hundreds of thousands more online
  + Big name sponsors, ,such as Samsung and Korean government contributed $350K prize money
* Lineage
  + Designed by Jake Song, also designed Kingdom of the Winds
  + Inspired by more medieval European fantasy
  + Focused on large-scale battles, whereas most western MMOs were focused more on single-player content
  + 3M subscribers by 2003. Not so popular in NA
* Micropayments
  + Korea pioneered the use of micropayments and free-to-play in video games
  + Nexon released Crazyracing Kartrider in 2004
  + Popular enough that it is estimated that 25% of all South Koreans played it
* China
  + Korean free-to-play games saw major success in China
  + China spent $1.8M over five years to support domestic games development
  + Learn from Lei Feng Online, released in 2006
  + Also banned foreign made games that the government believed posed a threat to Chinese culture by “damaging the nation’s glory” or “disturbing the social order”
* Masaya Matsuura
  + Became interested in computers synthesized music as a teen, wrote a soundtrack to accompany *Kaleidoscope* for the Apple II,
  + Memober of Japanese Synth pop group Psy’S in the late 80s
  + Founded NanaOn-Sha in 93 and released multimedia CDs with sound, graphics, and interactivity
  + Concentrated on software experiments full time after 96.
* Parappa the Rapper
  + Released in 1996 for PS
  + Press buttons in time with the rhythm of the music
  + Improvisation mode that allowed players to experiment
  + Worldwide acclaim, very popular in Japan
* Moondust
  + Only prior example of a music-based game
  + Released for C64 on 1983
  + Most popular game on C64
* Arcades in Trouble
  + Arcades always relied on having the best in graphics and sound
  + Now with 5th gen consoles, the gap was narrowing
  + Economics of coin-op forced developers to design bite-sized experiences
  + Home consoles were providing expansive worlds and new experiences.
    - Arcades couldn’t keep up.
* Mobile Phones
  + Mobile phones became more popular
  + Mobile phone owners can play games anywhere
  + Nokia’s Snake was first to have major impact
* Arcades look for Niche Products
  + *Daytona USA* remained one of the most enduringly popular arcade games for many years post-release in 1993.
  + *Densha De Go*! – train simulator
  + *Football Power*
  + *Boon-Ga Boon-Ga*
* Bullet-Hell Shooters
  + Subgenre of 2d shmup (shoot em up) games
  + Screens often near completely covered in enemy bullets
  + Appealed only to the most dedicated
  + Only way to survive is to memorize each level
* *Beatmania*
  + Released by Konami in 1997
  + Provided a DJ turntable and mixer – match techno music
  + No freestyle improvisation as in *PaRappa* but made players feel as though they were actually DJing
  + Followed up with *Guitar Freaks* and *Keyboardmania* in 1999
* DDR
  + Developed by Konami, released in 1998
  + Significant spectator and performative aspects to the game
  + Improvisation possible
  + Konami’s revenue shot up by 260% in the following fiscal year
  + Schools tried to use DDR as exercise machines
* American Music Games
  + Despite their popularity in Japan, most of these games remained on the fringes of NA gamer culture
  + NA gamers were less interested in techno
  + Harmonix Music Systems was interested in finding ways to allow non-musicians to play music
  + Released *Amplitude* and *Frequency*, but despite critical acclaim, neither sold well.
* Guitar Hero
  + Harmonix was told by Microsoft that no music game would succeed without a custom hardware controller
  + Partnered with RedOctane to produce a plastic guitar
  + Used tracks more appealing to a western audience: rock, alternative, etc.
  + Multimillion dollar success that spawned many sequels
* Sequels and Sales
  + 24 Guitar Hero products developed between 2005 and 2010
  + RedOctane (with *Guitar Hero* brand) purchased by Activision in 2007
    - Probably meant to purchase Harmonix as well, but messed up.
  + Harmonix went on to create *Rock Band* and its 11 sequels between 2007 and 2010, later purchased by MTV, then Viacom purchased MTV
* Decline
  + By 2010 interest in music games and peripherals had waned considerably
  + Oversatuation was the primary culprit
  + Activision has completely hut down all Guitar Hero operations
  + Harmonix sold off, continues to work on music-based games, recently held a Kickstarter for a rerelease of *Amplitude*
* Music
  + Historically speaking, music has been used as a medium to transmit an idea
  + With film and television music is typically still part of the storytelling apparatus
  + Video games offer the chance to *perform* music
  + Laying music; music games do not offer a greater mastery over performance, but provide us with a greater appreciation for music and musical structure.
* Texture
  + Board games, painting and food all exhibit various types of texture
  + Video games attempt to do so with graphics and visual gameplay effects
  + Rumble is used in modern controllers – either for better immersion, or better feedback
  + The designer of *Rez* – Tetsuya Mizuguchi cites synesthesia as inspiration, uses a “trance vibrator” controller attachment so that the player experiences the music of *Rez* tactilely as well as aurally.

Doll’s House

* + The original title for what was to become *The Sims*
  + Inspired by *A Pattern Language*
  + Sims originally added to “score” the architecture, behavior based on technology created for *Sim Ant*
  + Sim behavior was compelling to watch, became central focus
* Reality TV and Voyeurism
  + Wright believes that our “innate voyeurism” is what lay behind the appeal of The Sims
  + Almost everyone begins The Sims by modeling their life; family, friends, neighbors, etc.
  + “…they become the superhero on screen – even though it’s not so super.”
* Little Computer People
  + *Pet Person* developed by Rich Gold and bought by ATVI in 1984, based on Pet Rock craze
  + No interactivity, David Crane added gameplay mechanics
  + Released in 1985 as *Little Computer People*
* Alter Ego
  + Developed by Peter Favaro, a psychology grad student
  + Wanted to make a game that allowed people to explore life choices they were afraid to make
  + Interviewed more than 1K people; noticed that people were really keen to share personal information
  + Released by ATVI in 1986
* *The Sims*
  + EA purchased Maxis in 1997, partly due to *The Sims*
  + EA provided the funding and resources to complete *The Sims*
  + Community building a big part of pre-release planning, used community for “remote” beta testing
  + *The Sims* released in February 2000 and was an instant success.
* Story-Telling
  + Players could take screenshots and add text
  + Feature that allowed instant uploading to Maxis servers
  + Much more popular than anticipated
  + Playing *The Sims* became a form of self-expression for many people
* Snapshots
  + Snapshots value ease of capture and personal value of photographs over artistic or social value
  + Most engines have specific use cases – formal distictives are not useful for the lay person
  + Game creation can never be a fully automated affair
  + A snapshot has value only to the few, even though it can be shown to the many
* *Quake* and Modding
  + *Quake* released in 1996, last collaboration between John Romero and John Carmack
  + Released with programming/scripting language – QuakeC
  + *Team Fortress* produced within months of Quake’s release
  + *Threewave CTF* also released around this time (CTF = Capture the Flag)
  + Modding features spread to many other games – including to consoles.
* Machinima
  + Id added a record feature to Quake for death match replays
  + The Rangers decided on a whim to make a movie
  + *Dairy of a Camper* was intended to poke fun at John Romero
  + Huge interest, interest continued to grow and encompassed more games
* The Movies
  + Released by Lionhead in 2005
  + Players run a movie studio, but can also create machinima
  + Full-time community manager hired
* LittleBigPlanet
  + Formed by former Lionhead staffers in 2006
  + Goal to create a game that allowed players to make gamers – and was a good platformer
  + Many pivots to find the right balance between power and accessibility
  + Exclusive on PS3 November 2008, over a million new levels created by next summer
* Sega’s Last Gasp
  + Dreamcast released in November 1998 in Japan, almost a year later in NA and EU
  + Highly respected for innovation in technology and gameplay
  + Sold decently well to begin, however, Sega continued to post losses
  + Discontinued in Jan 2001 as PS2 overtook the market
* Dreamcast Games
  + Over 600 games released
  + Had strong list of launch titles for a solid first-year line-up
    - *Crazy Taxi*
    - *Shenmue*
    - *Phantasy Star Online*
    - *Jet Grind Radio*
    - *SoulCalibur*
    - *ChuChu Rocket!*
* Pokemon
  + Released in Japan 1996, was a multimedia franchise by 1998 NA release
  + Sold 3M copies in 3 months Japan three months after launch
  + Helped usher Japanese pop culture to the west
  + Gameplay inspired by idea of sharing data between Game Boys and Satoshi Tajiri’s interest in entomology
* Japan to #3
  + Despite the success of Pokemon, Sony ate into Nintendo’s profits and eclipsed the GameCube
  + Microsoft jumped in the void left behind by Sega with the Xbox
  + PlayStation 2 and Xbox sold very well in the west, eventually leading to NA and EU being #1 and #2, with Nintendo taking #3.
* Nintendo looks for solutions
  + Satoru Iwata replaced Hiroshi Yamauchi in 2002
  + Nintendo didn’t have the media diversity or marketing war chests of Sony or Microsoft to fall back on
  + Rethought Nintendo’s approach to console and game design
  + Believed industry’s pursuit of greater tech had opened a gap between developers and the broader gaming public
* Nintendo DS
  + Released Nov 2004
  + Split screen, flip open handheld, with dual displays (one touch capable) and a microphone
  + Initially thought to be a gimmicky, knee-jerk reaction to Sony’s PSP
  + Sold 125M units by 2009
* Nintendo Wii
  + Success with DS confirmed Iwata’s beliefs an dinspired development of Nintendo Wii
  + Preceded by other motion control attempts
    - NES Power Glove
    - PlayStation 2 EyeToy
    - Buzz! The Music Quiz
  + Wii launched in Nov 2006, again looked at with skepticism
  + As of March 2014, the Wii had sold over 100M units, while PS3 and Xbox360 sold 80M a piece
* The Great Recession
  + Also called “the second great depression”
  + Began in Dec 2007 and extended though June 2008 in the US
  + Made more difficult by increase in oil and food prices
  + Caused by the US house bubble bursting, and the failure of major investment banks
* Are Video Games Recession Proof?
  + Business was soaring in the years prior to the recession, and even through the early months
  + The theory is that video games offer a good value source of entertainment
  + However, there was a contraction in 2009, with sales decreasing almost across the board.
* Hit Driven Business
  + In the last decade or so, major publishers have generally be moore risk adverse
  + Games have been increasingly more expensive to produce
  + Sequels tend to dominate the top selling charts
  + Consumers tend to buy the best marketed game, rather than the best quality game
  + Arguably, “cash-cow” sequels provide the capital needed to develop more risky ventures.
* Developer/Publisher Relationships
  + Publisher – foots the bills, typically responsible for manufacturing, localization, and marketing
  + Pulishers take on inventory risk when publishing to consoles
  + Games are developed internally – by publisher owned studios, or externally – by independent studios, with a publishing deal
  + Distribution deals are typically made when an independent developer has enough cash to fund development but needs access to the publisher’s distribution channels.
* Game Development in Canada
  + 329 studios n 2013
  + 16,500 FTEs directly employed
  + 4600 FTEs indirectly employed
  + Large firms (500+ employees) employ 68% of total game dev workforce in 2013
  + Average age of a dev in Canada is 31
  + Generated ~$2.3B in 2012
* Conditions in AAA studios
  + Open office environment is common
  + Hours are generally flexible with core hours typically less than standard business hours
  + Perks often include meals, snacks, games and consoles, gym or gym memberships and event tickets
* S