ACTION GAMES!

Videogames!

* How do we think about videogames historically?
* As games? Or as a new art form?
  + Has SOME commonalities with games, but is a new thing.
* What’s the connection between the history of games and videogames?
* **What’s the missing link?**
  + **Pinball!**
* The arcade is much older than videogames, dating back to the late 19th century.
  + An amusement parlor
  + Non-electronic
  + Part of american night life
* Pinball grows up in the arcade, an antecedent to the videogame
* Rolling balls through pegs.
* Wooden pinballs!
* **Montigue Redgrave created this pullback plunger in a cabinet**
  + **You could have enough finese with the plunger to control the arc of the ball**
* Pinball grows and becomes more popular and electronics start to be incorporated into pinball
  + The first electronic game, not necessarily digital, but both electronic and analog.
* **Humpty Dumpy (1947) by Harry Mabs, created the flipper, but the flippers were pointed in different directions**
* **Spot Bowler (1948) Wayne Neyens, put the flippers facing upwards**
  + **Wanted to make a bowling simulation and this made the modern version of pinball**
* Your skill and reactions matter now, and you ended up getting people invested.
* All pinball is designed like this after.
* Sometimes things are just accidents, he didn’t plan to perfect pinball
  + Neyens just wanted to create a bowling situation in pinball
* Pinball
  + Electroninc
  + In arcades
  + Rewards dexterity
  + Forgotten now, but in its time was the common persons night life game.
* There’s a rock opera about a person playing Pinball
  + Elton John and Roger Daltry of The Who
* Pinball was the videogame of the time
* A way that people could interface with electronics in the early part of the 20th century
* MEANWHILE
* **Spacewar!**
  + 1962, Steve Russell, Martin Graetz, Wayne Waimen, PDP-1, USA
  + Two players
  + Fire missile
  + Change position
  + Thrust
  + **Vector displays are like CRT’s and use phosphorous to draw light**
    - As a result, things that need to be refreshed more often appear brighter on the screen
  + By placing the gravity pull, people immediately taught to fly away
  + **The first arcade game**
    - Nolan Bushnell
    - We could put this in an arcade!
    - Nutting Associates starts producing cabinets
      * It is NOT a success
      * Machine is bizarre looking, no one has played a game before
      * Has terrible controls
      * It was featured in Soylent Green
    - It wasn’t a success, but he knows it’s a niche
* Bushnell founds Atari
* Pong! 1972, Al Alcorn w/Atari, Arcade, USA
  + Ted Dabney, Nolan Bushnell, Fred Marincic, and Al Alcorn
  + WHy?
    - Learn from mistakes from Computer Space
    - Pong is just a nob.
      * There’s a literacy for the nob
    - He moved away from the futuristic design of Computer Space
    - People don’t want the future, they want now
      * **The idea to put wood panelling on the side was inspired by the Station Wagon**
    - In order to make people play it they have to make it look like something people already know
    - **The first successful Arcade Game**
    - **Stories about Pong**
      * **Pong machine is broken because there are too many quarters in it**
      * **Pong used as an interview for Bushnell in Atari**
    - Ralph Baer later sued, with Vagnamox, for copying his game “Tennis for Two”
      * Baer’s tennis game was not the first!
        + The first was Willy Higinbotham who worked for the airforce
        + The actual father of videogames
* Space Invaders
  + 1978, Tomohiro Nishikado, Arcade, Japan
  + The beginning of a game industry starts to form
  + Very international industry
  + Not a contemporary game designer
  + Nishikado was an electrical engineer, drawing up the schematics and everything needed to make the game.
  + The reason the enemies go faster as you kill more is cause the system processes them easier.
  + He was also responsible for the art
  + Nishikado was already an established game designers, having made GunFight and Car Race
  + WHY?
    - **The first COLOSSALLY successful videogame.**
    - So popular that when it came out, there was a shortage of coins (not true, but by 1981 it had made over 1 Billion dollars in quarters alone).
    - The most successfull thing, like, ever.
    - Why was it a hit?
      * When you’re looking at pong, or breakout, there’s not enough happening
        + With Space Invaders there was character design with the aliens
* Common mechanics of actions games
  + **Avatar-Based**
    - Manipulating something on screen
  + **Positional**
    - You care about where that something is
  + **AI Controlled Enemies**
    - Overwhelmingly single player games
  + **Dexterity and reflex intensive**
    - They require skill in that particular athletic way
  + **Linear difficulty progression**
    - Levels get more difficult in a linear fashion
      * In an adventure game you are exploring a spacw
      * In an action game you have a series of challenges that line up and get harder as you go
* Action games have a lot in common with pinball, which had made such a huge success
  + Positional, dexterity and reflexes, highscores, themes, extra shots (lives).
  + Death in videogames that people made videogames in the context of pinball machines. People should get about 3 shots per play of the game.
* Evolution in the arcade
  + Humpty Dumpty
  + Spot Bowler
  + Triple Action
  + Space Invaders
    - Breakout
      * Pong
        + Computerspace
* Pac-Man
  + 1980, Toru Iwatani, Aracde, Japan
  + Creator wrote first book on game design in Japan
  + Why Pac-Man?
    - People were seeing this for the first time
    - It’s the first time many people got the experience of interacting with an AI
      * The ghosts
        + Each ghost has a different pattern
        + **Blinky- Aggressivly Follow**
        + **Pinky- Tries to cut player off**
        + **Inky- Unpredictable**
        + **Clyde- Ignores the player**
        + Together they give the impression that you’re playing against a machine
    - Mindblowing that a computer could outsmart you
    - The ghosts behavior is deterministic
    - **Kill screen is a term in arcade games where the game runs out of levels**
    - This is a first in a pop-cultural sense
      * Everything was brand new
      * People were obssessed
* Centipede
  + 1981, Dona Bailey, check out the key games
  + Ed Logg
    - Supervisor on the project
    - Made asteroids and super breakout
  + Dona Bailey
    - A programmer for General Motors
    - Went to Atari and was the most qualified
      * **“Bug that winds down the screen”**
        + **The description in a book of game design ideas**
  + **Why?**
    - **Centipede is the first great shooter**
    - **On a trackball, with a dynamic stage**
    - **The idea that movement should be 4 way and dynamic establishes the model for movement in a shooter**
    - **Dodging should be a verb that players use**
* Atari VCS
  + Video Computer System
  + Usually tried to make remakes of successful arcade games that turned out awful
  + Each version released was awful and inferior
  + THE CRASH of 1983
    - Mostly an American Console phenomenon
    - Cause by
      * Market glut
      * Lack of publishing control
      * Competition from home computers
      * ALSO
        + ET, worst game ever made
* Super Mario Bros (series)
  + 1985, Shigeru Miyamoto/Nintendo, NES, Japan
  + Shigeru Miyamoto
    - One of only three people that have TWO games on the key games list
    - Studied industrial design, but always fancied himself a cartoonist
    - His dad had a friend who was President of Nintendo
    - Ends up working for nintendo
    - Makes Donkey Kong in 1981
    - Then Mario Bros in 1983 (cooperate and compete
    - WHY
      * **Started the console generation, the resurgence of consoles**
      * **Credited with saving the industry**
      * **Had the “Nintendo Seal of Approval” which stopped copycats from making games for the NES. Controls who can make what for the machines.**
        + **Establishment of what would become the publishing and hardware model of vidoegames.**
        + **You can curate your selection**
  + The Console Generation
    - A very different style of play
    - Legacy
      * 0 Lives = Start Over
      * Linear Difficulty Curve
      * Dexterity and Reflexes
        + Innovations

The game can be completed

Checkpoints and continues

* Mega Man (series)
  + 1987-2010, Keiji Inafune w. Capcom, NES, Japan
  + Capcom denied the initial pitch, so the team worked after hours on the game, took it to capcom, they tried it and published it.
  + Mega Man 2 really is the first megaman, the original vision
  + Much more about tiny precise hops than airy jumps like mario
  + And a gun on your arm!
  + Original Mega Man, Mega Man X, Mega Man Legends
  + WHY?
    - **An action/puzzle game**
      * **Looks at the model of super mario bros and builds on it, looking for how home console play changes play.**
      * **There’s a particular order that’s best to play**
        + **You can investigate it and find the secret way to beat!**
      * It has a password system, so you can, after each boss you beat and each death, you’re given a code and you can put that into the game and go back to the same spot.
      * Legacy
        + 0 Lives = Start Over
        + Stages
        + Dexterity and Reflexes

Innovations

Password system

Non-linear stage order

* MEANWHILE
* Raiden (series)
  + 1990, Seibu Kaihatsu, Arcade, Japan
  + Still arcades happening
  + Shoot-Em Ups
    - **SHMUPS**
  + **A shooter where all the different elements from the arcade scene came together.**
  + A real genre has emerged
  + Why?
    - Parallel evolution alongside games. Arcade continued during the crash.
* A brief history of shooters
  + Space Invaders, first SHMUP
  + Centipede, 4 way movement
  + Galaga, the feint (enemies fire AT you, an incredible innovation, you can now feint)
  + These three things create what SHMUP’s feel like
  + Defender (1981)- Scrolling, horizontal
  + Robotron (1982)- Twin stick, move with one stick shoot with another
  + Gradius (1985), cores, loop (weak points on a boss).
  + Contra (1987) - Platformer, co-op
  + Raiden (1990)- The genre solidifies
  + Battle Garegga (1996)- Bullet Hell
* MEANWHILE
* Super Mario 64, 1996, Nintendo EAD,
  + Technical Innovations
    - Analog Stick (you can tip it along a scale of 0%-100&)
      * With a directional pad, you click it and that’s it
    - Camera system makes it easier to see and puts the camera in the hands of the player.
      * He personified the camera to make players trust the camera
    - **An open world**
      * **You could explore, go all these different places and find challenges**
    - **Mario for the first time is extremely expressive and helps you move more precisely and interestingly**
      * Long jump, walk kick, triple jump, etc.
      * What’s fun about space is moving through it.
  + Legacy
    - Dexterity and Reflexes
      * Innovation
        + Analog Control
        + Non-linear stage order
        + Reactive camera
* **Godhand**
  + 2006, Shinji Mikami w. Capcom, PS2, Japan
  + Has two games on the games list along with Miyamoto
  + WHY
    - Very very very bad
      * It’s ugly, poorly programmed, really offensive
    - BUT, it’s a respected action game
    - **It’s dense, you can build your own combos and buy moves**
    - Game design is precise
    - Very difficult and challenging, there’s a lot there
    - An acquired taste
      * I have to trust that the person who recommended it knows what they’re talking about
    - **It’s a great lesson for all the games. We won’t love them all, but we should play them as though we love them**
    - The value of challenge
      * An aesthetic in challenge
      * It’s easy to look at Godhand and call it dumb, but it’s very honest about what it is
      * Builds a system that will reward you for the time you put in
      * A precursor to games like dark souls
* Super Hexagon
  + 2012, Terry Cavanaugh, iOS, England
  + **WHY**
    - **History works both ways**
    - **History is not just linear building forward**
    - **It’s a shooter with the bullets taken out**
      * **A breaking down to the first arcade**
      * **You are an avatar moving around the screen**
    - Enormously contemporary but still just an inheritor of earlier traditions
    - Comes out of the tradition of shooters, but why is it so successful?
    - The app store has become an important avenue for game dev
* There’s an idea of an evolution from pinball to space invaders
  + But history is much more complicated and all these different things led to different things and vice versa
  + Parallel histories
  + History is never one simple line, accidents happen and things happen
* **THE ENGINEERING FALLACY**
  + **AN INCORRECT BELIEF THAT THE ADVANCEMENT OF GAMES IS PURELY TECHNOLOGICAL PROCESS, AND THAT THEREFORE NEWER GAMES ARE BETTER THAN OLDER ONES.**