

Evolution of Multiplayer

Inventing new ways to play together

Speakers

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History of Multiplayer

Non-Networked Multiplayer Games

History of Multiplayer 70's Arcade Games

Early games, consisting up to 2 players alternating turns.

Computer Space (1971) - the first commercially released video game.

Computer Space



History of Multiplayer 70's Arcade Games



Pong (1972) - the first successful commercially released video game.

Multiplayer gaming has been born!

History of Multiplayer Golden Age

1 to 2 player
games
(alternating
turns)



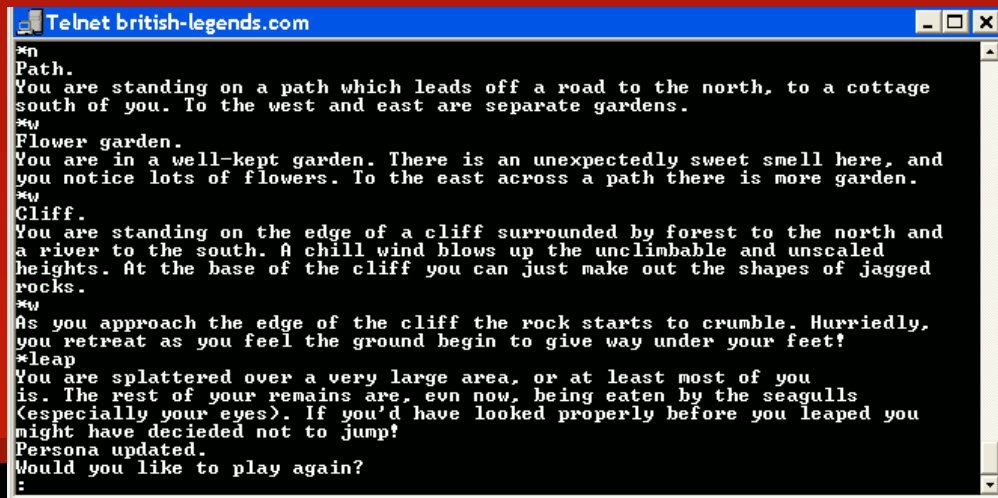
Space Invaders (1978)

Asteroids (1979)

Pac-Man (1980)

History of Multiplayer 1980's

Island of Kesmai (1985) - It is considered a major forerunner of modern MMORPGs. This game became available in 1985 for \$12.00 per hour via the CompuServe online service and supported up to one hundred players.

A screenshot of a Telnet window titled "Telnet british-legends.com". The window displays the text-based game "Island of Kesmai". The text is as follows:

```
*n
Path.
You are standing on a path which leads off a road to the north, to a cottage
south of you. To the west and east are separate gardens.
*wy
Flower garden.
You are in a well-kept garden. There is an unexpectedly sweet smell here, and
you notice lots of flowers. To the east across a path there is more garden.
*ww
Cliff.
You are standing on the edge of a cliff surrounded by forest to the north and
a river to the south. A chill wind blows up the unclimbable and unscaled
heights. At the base of the cliff you can just make out the shapes of jagged
rocks.
*wy
As you approach the edge of the cliff the rock starts to crumble. Hurriedly,
you retreat as you feel the ground begin to give way under your feet!
*leap
You are splattered over a very large area, or at least most of you
is. The rest of your remains are, evn now, being eaten by the seagulls
<especially your eyes>. If you'd have looked properly before you leaped you
might have decided not to jump!
Persona updated.
Would you like to play again?
:
```

History of Multiplayer 1990's

Doom (1993) - considered as one of the pioneering first-person shooter series. Supported by LAN up to 4 players.



History of Multiplayer 1990's

Warcraft (1994) -
Introduced multiplayer
facilities were essential
for future RTS titles.

Allows two players to
compete in multiplayer
contests by modem or
local networks.



History of Multiplayer 1990's

The Lost Vikings -

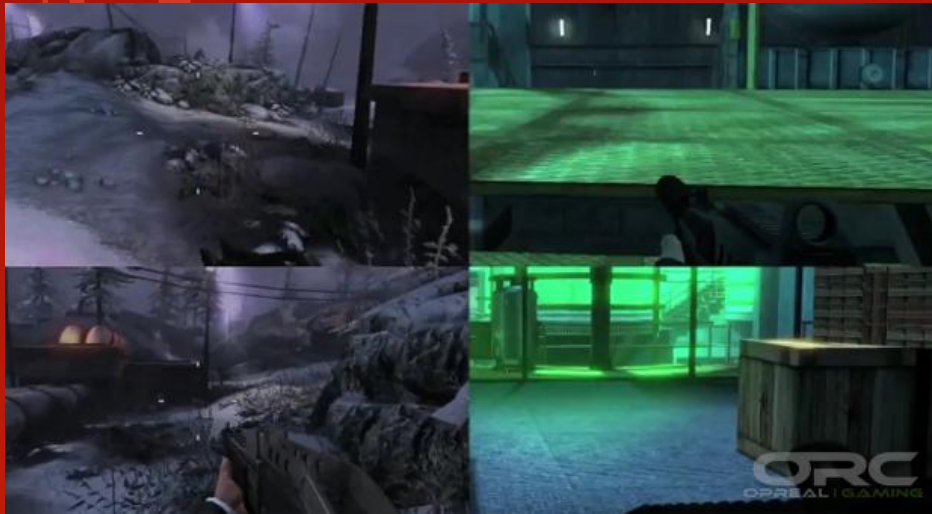
The player controls three different characters (only one at any given time), and must make use of their individual abilities and work as a team to solve puzzles and progress.



History of Multiplayer 1990's

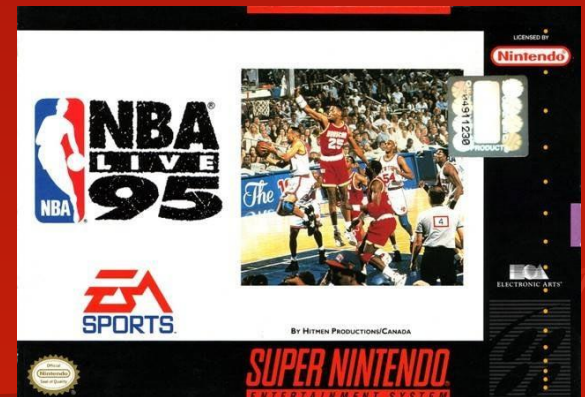
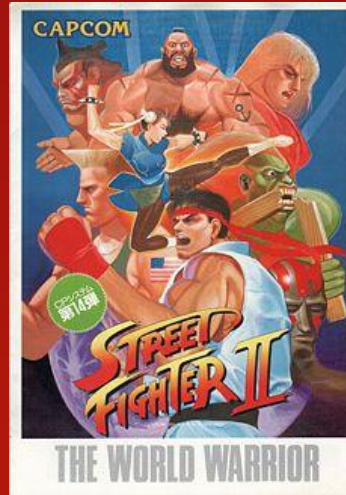
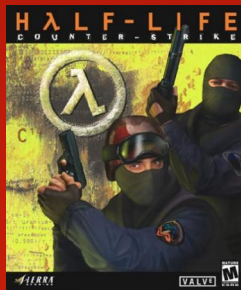
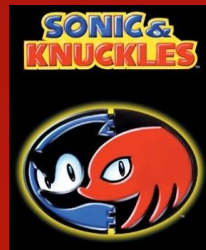
Golden Eye (1997)

The multiplayer mode allows two, three, or four players to compete against each other in five different types of split screen death-match games.



History of Multiplayer 1990's

Games are up to
4 players
simultaneously.



Seamless Multiplayer



Seamless Multiplayer What is it?

- Players can jump in and out of other player's worlds, playing as an NPC.
- Some games use persistent worlds, that is shared by all players.
- Other games have players always able to interact with each other without being NPCs.

Seamless Multiplayer Examples



Watch Dogs
Play as NPCs



Journey
Encounter other players
while online

Seamless Multiplayer Example



Destiny

Persistent, shared world that is shared by all online players

Seamless Multiplayer Watch_Dogs



- Players are able to jump into other worlds and play as NPCs.
- This causes the main player to never know if the NPC is an AI or other player.

Seamless Multiplayer Journey



- Players can encounter others while playing through their single player game.
- Players cannot communicate with each other, but are allowed to assist each other.

Seamless Multiplayer

Destiny



- Players are in a shared world that persists even when they are not playing.
- They have the ability to play with or without others by joining up and carrying out missions together.

Why Seamless Multiplayer?

- The option to play with others has always been appealing, as evident with co-op and online multiplayer.
- Seamless multiplayer is like co-op campaigning or versus mode whenever you want, without switching out of single player mode.
- The ability to jump right in gives players more options and opportunities to play with others.

Winless Multiplayer

A thick, horizontal red brushstroke underline that spans most of the width of the slide, starting below the title and extending towards the right edge. It has a slightly irregular, hand-painted appearance.

Winless Multiplayer What is it?

- No possible way to win the game.
- Players fight together to survive.
- Once all players have died, the game ends

Winless Multiplayer Examples



Call of Duty: Zombies Mode
Endless Waves of Zombies

Winless Multiplayer Examples



Halo 3: ODST - Firefight Mode
Winless Sets of Enemies

Winless Multiplayer Zombies Mode

- Players work together to fight waves of zombies.



Winless Multiplayer Firefight Mode

- Players fight through endless sets of rounds of enemies.
- A new, harder set starts once all the rounds of the previous set is completed.



Why Winless Modes?

- The player's goal is to survive as long as they can.
- This motivates players to keep improving.
- Other goals such as obtaining new weapons or new skills motivate the players to continue playing.

Passive Multiplayer



Passive Multiplayer What is it?

“Why play alone when you can play alone together?”

- Online, but not “played” online.
- Players do not interact directly
- Data is shared
- Single-Player with Multiplayer Elements

Passive Multiplayer 3DS StreetPass

Nintendo 3DS StreetPass

- Utilizes 3DS short-range communication
- Collect Data of other players you pass
- Use their character in games



Passive Multiplayer 3DS StreetPass



Next attack!



Nintendo 3DS



Mii Force

StreetPass™



Flower Town

Mii PLAZA™



Warrior's Way



Monster Manor

Passive Multiplayer Examples

Dark Souls

- Orange Soapstone Messages
- Blood Stains



<http://analogaddiction.files.wordpress.com/2013/11/dark-souls-2-message.jpg>

http://img2.wikia.nocookie.net/_cb20131115182725/darksouls/images/8/85/Bloodstain.jpg

net/_cb20131115182725/darksouls/images/8/85/Bloodstain.jpg

Passive Multiplayer Examples

Dragon's Dogma

- Pawn System
(Similar to StreetPass)
- Ur-Dragon



Super Mario Bros. U

- Miiverse Messages
- Ghost Players



Passive Multiplayer Examples

Need for speed: Hot Pursuit

“Autolog” Feature - Race times and event times uploaded to server, then seen by friends.

Kerbal Space Program

LiveFeed Passive [Mod]

Allows players to see others' current status, ship, etc. Chat interaction only.

Goalless Multiplayer

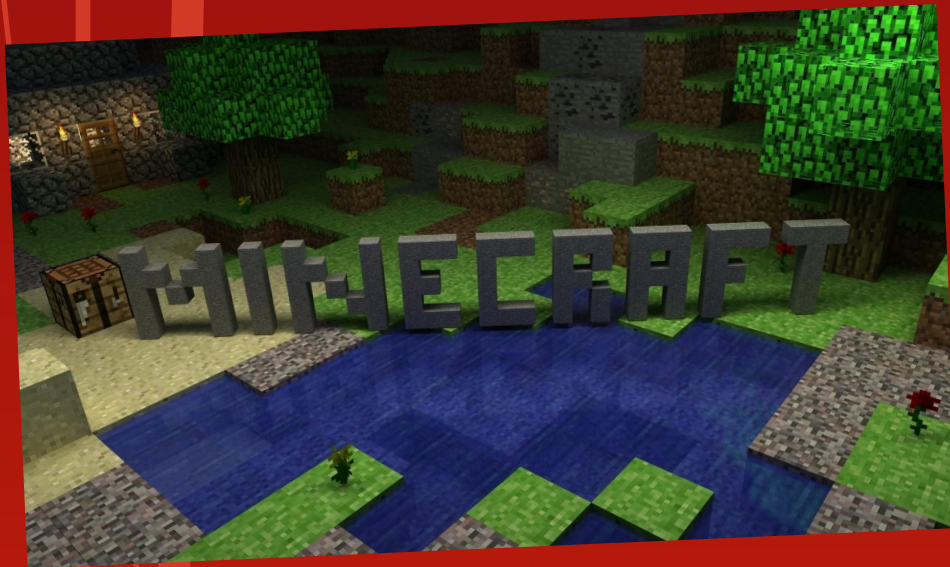


Goalless Multiplayer

What is it?

- Offers no goal
- Players make a goal
- Designed for players to make their own play style

Goalless Multiplayer Examples



Minecraft

Unbounded Creativity
Destructible Environment



Animal Crossing

Bounded Creativity
Fixed Environment

Goalless Multiplayer Animal Crossing



- Maintain your village
- Befriend animal neighbors
- Decorate and upgrade your home

Goalless Multiplayer Multiplayer



- Everyone visits one person's village
- Can do the same things as in single player
- No real purpose aside from sharing/playing together

Goalless Multiplayer

Player-Made Goals

- Net Tag
- Bug or Fish Catching Contest
- Hide & Seek



Goalless Multiplayer Minecraft



- Survival Game
- Find Resources, Fight Monsters, Craft
- Build and Reshape your World

Goalless Multiplayer Multiplayer



- Everyone visits one person's world
- Can do the same things as in single player
- No real purpose aside from sharing/playing together

Goalless Multiplayer

Player-Made Goals

- Install adventure maps to play
- Maps made by others
- Similar to text based games



Goalless Multiplayer

Player-Made Goals



8:35

Goalless Multiplayer

Designing Gameplay

- Animal Crossing added timer & hammer tools
- New Leaf added minigames
- Minecraft added creative mode



Goalless Multiplayer Griefing

Common among goalless multiplayer



Goalless Multiplayer Griefing

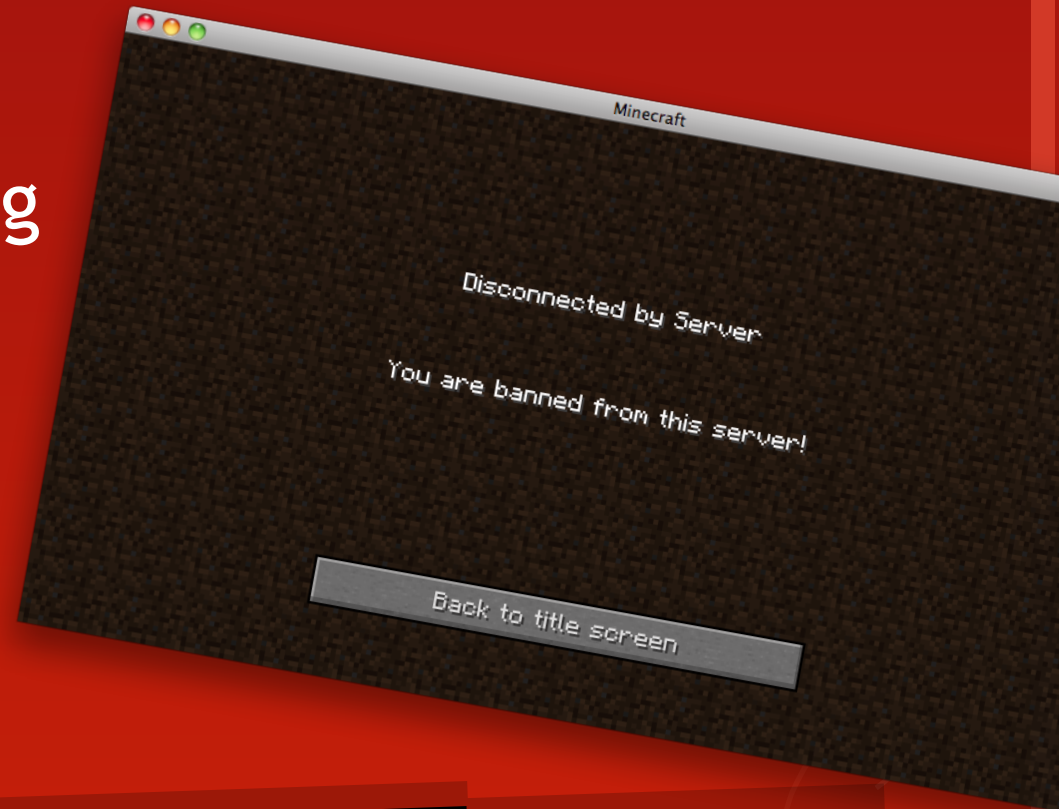


- Players get bored
- Start ruining things

Goalless Multiplayer

Combating Griefing

- Quit Without Saving Feature
- World Backups
- Kicking/Banning
- Permissions



Always Online



Always Online “Feature”

Companies have advertised “Always Online” as a feature that benefits the social interactions between players.

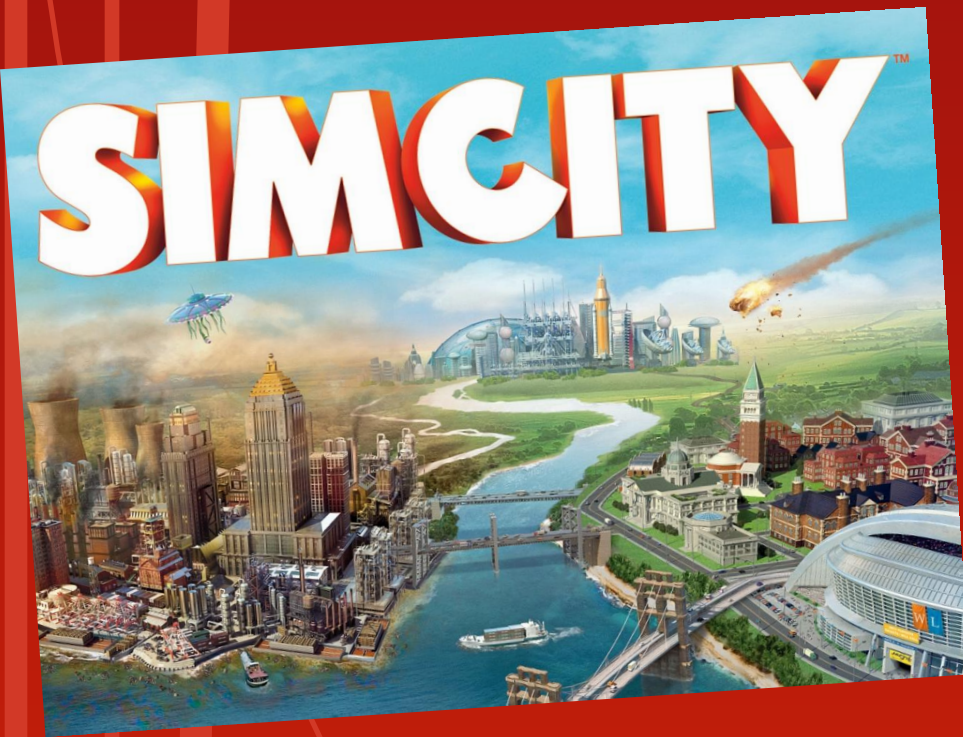
Perhaps, but it mainly just serves as lazy Digital Rights Management.

Digital Rights Management

The game cannot be played without an internet connection.

- Verify account holder's purchase of content

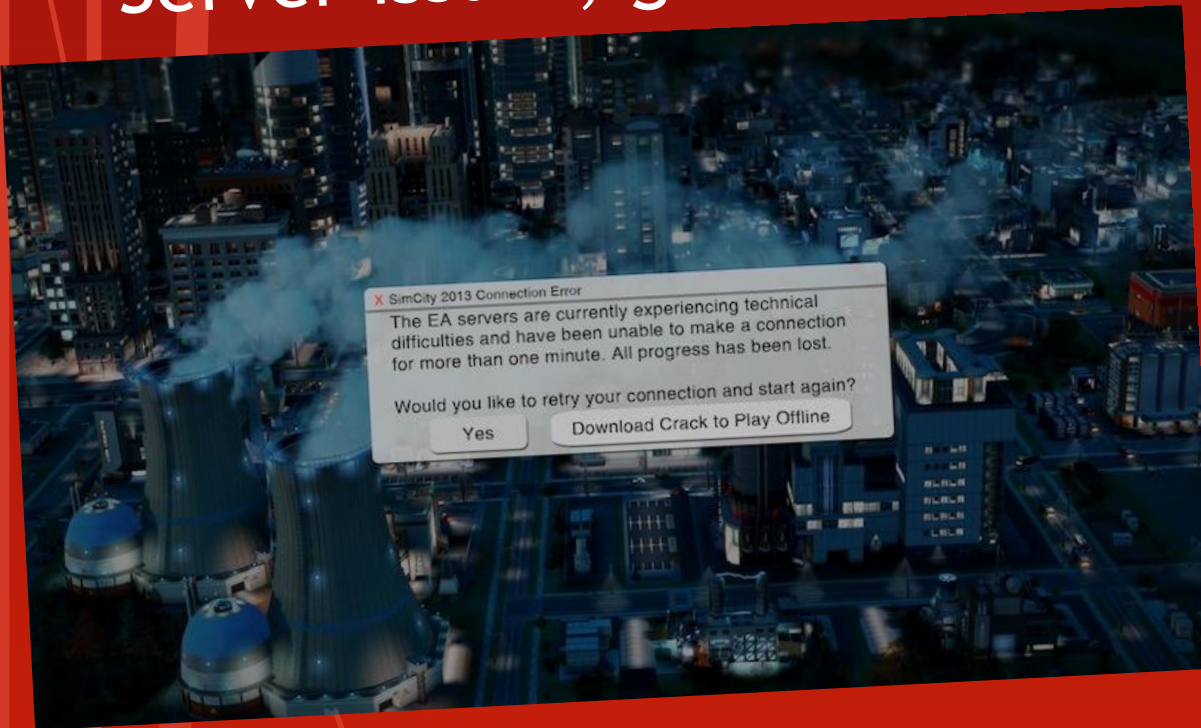
Digital Rights Management



Digital Rights Management

Problems:

Server issues, general public backlash



Always Online

Game can persist without any online players:

This allows for Asynchronous Multiplayer

Asynchronous Multiplayer

Players can play a game “together” without actually being online at the same time

Asynchronous Multiplayer



One player takes a turn, then waits for another player to come online and take their turn.

Asynchronous Multiplayer



Can be applied to
turn-based games
with significant
complexity



Asymmetrical Gameplay



Asymmetrical Gameplay What is it?

Asymmetrical Gameplay is a form of multiplayer in video games in which multiple players can play the same game simultaneously in different ways.

Source: [Wikipedia.org](https://en.wikipedia.org/wiki/Asymmetrical_gameplay)

Asymmetrical Gameplay Maps

Asymmetrical Maps

- Multiplayer maps/arenas that are not symmetrical in shape and/or offer different advantages and disadvantages with player/team start positions.

Asymmetrical Gameplay Maps

Maps

Symmetrical Maps



Derelict, Halo



Facing Worlds, Unreal Tournament

Asymmetrical Gameplay Maps

Zanzibar, Halo 2



Asymmetrical Gameplay Maps

Strike at Karkand, Battlefield 2



Asymmetrical Gameplay Abilities

Asymmetrical Abilities

- Multiplayer where players/teams have unique abilities and play styles from other players/teams.

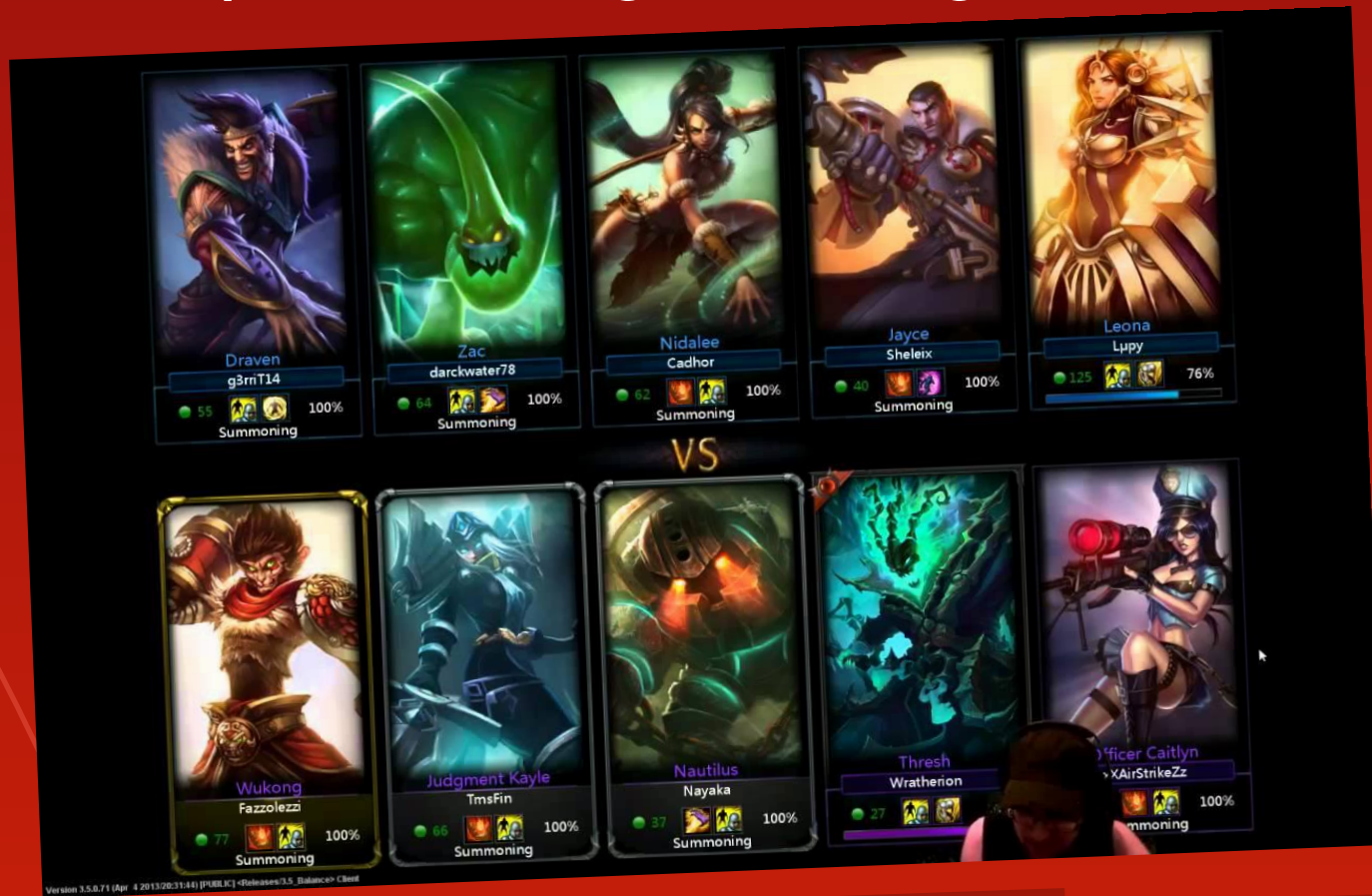
Asymmetrical Gameplay Abilities

Terran, Zerg, Protoss ; Starcraft



Asymmetrical Gameplay Abilities

Champions ; League of Legends



Asymmetrical Gameplay Objectives/Goals

Asymmetrical Objectives/Goals

- Multiplayer where different players/teams have completely different objectives than other players/teams.

Asymmetrical Gameplay Objectives/Goals

Terrorists and Counter Terrorists, Counter Strike



Asymmetrical Gameplay Objectives/Goals

Humans and Zombies, Left 4 Dead 2



Asymmetrical Gameplay

Wii U

Wii U and Asymmetrical Gameplay

- Nintendo designed the Wii U and it's Tablet controller specifically with Asymmetrical Gameplay in mind.

Asymmetrical Gameplay

Wii U



VS



Asymmetrical Gameplay

Wii U

Mario Chase, Nintendo Land



Asymmetrical Gameplay Advantages

- More Variety
- Additional Skill / Strategy / Depth
- More closely related to the real world

Asymmetrical Gameplay Disadvantages

- Harder to balance competitive gameplay
- Higher learning curve for new players
- Additional development time/resources
- More prone to bugs / unexpected interactions

Future of Multiplayer



Future of Multiplayer

Three major factors:

- Technology

- User Experience

- Business

Future of Multiplayer

Technology

- Nintendo Wii U
- Microsoft Smart Glass
- Playstation Vita

User Experience

Users are growing tired of playing the same games

Increase in nonstandard multiplayer such such as Asymmetrical gameplay

```
graph LR; A["Technology<br/>-Nintendo Wii U<br/>-Microsoft Smart Glass<br/>-Playstation Vita"] --> C["Increase in nonstandard multiplayer<br/>such such as Asymmetrical gameplay"]; B["User Experience<br/>Users are growing tired<br/>of playing the same games"] --> C;
```

Future of Multiplayer

Technology

Smart phones;

- Small intervals of time
- Sporadic internet connection

User Experience

Increase in “casual” gamers

- prefer slow paced simple gameplay

Increase in Passive and Asynchronous multiplayer

```
graph LR; A[Technology] --> C[Increase in Passive and Asynchronous multiplayer]; B[User Experience] --> C;
```

Future of Multiplayer

Technology

- Current games push graphics hardware to it's limit

Buisness

- Offline multiplayer can be played with one copy of a game
- Easier to pirate offline games

Decrease in offline multiplayer and increase in always online games.

```
graph LR; A[Technology] --> D[Decrease in offline multiplayer and increase in always online games.]; B[Buisness] --> D;
```

Future of Multiplayer

Technology

- Internet speeds and percentage of users with internet access are continually increasing
- Larger integration of internet with next generation game consoles

User Experience

- Most Users (70%*) do not finish single player games
- People are social beings and in general like to experience things with others

Business

Creating single player experiences is expensive:

- Programmers to program AI
- Artists to create assets
- Designers/Authors to create story

Increase in multiplayer games of all kinds including seamless, winless and goalless multiplayer.

*According to Steam Statistics

Evolution of Multiplayer

Inventing new ways to play together