

VR Status Quo



(and how we got here...)

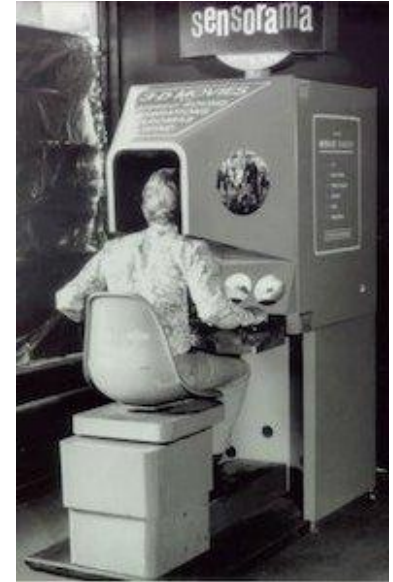


Glimpse of the Status Quo....



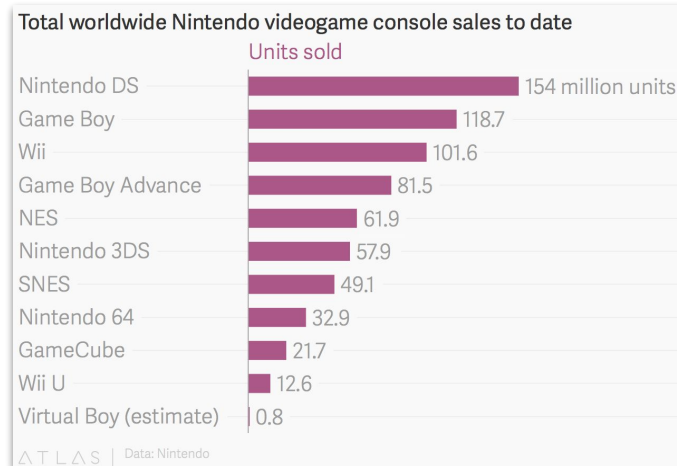
VR before the 2000s

- VR has been an academic thing since WAY before the 2000s
 - ▷ 1950s - Morton Helig's Sensorama
 - ▷ 1991 - Virtuality Group Arcade Machines



The First (Real) Attempt at Commercialization

- Sega announced a VR headset in 1993 for the Genesis Console
 - ▷ Had entire games made → Never made it to market (Motion Sickness)
- Nintendo released the Virtual Boy in 1995
 - ▷ Red and Black
 - ▷ \$180



The beginnings..... (the big bang of VR)



Result of the Kickstarter [2012]

- 2.5 Million Dollars in backer money
- Massive “public” recognition
- Industry Hype

“Execs in the the Gaming Industry are going crazy over this VR Headset”
- **Business Insider (Aug. 2, 2012)**



2012 Best of E3 Nominee
(They didn't even have a product)

From Development to Consumer Products

March 2013

640 x 800 per eye
60 Hz
110 Degree FOV



July 2014

960 x 1080 per eye
60 Hz
100 Degree FOV



March 2016

1080 x 1200 per eye
90 Hz
110 Degree FOV



Valve Coming out of the Closet

- Announced Partnership with HTC in March 2015
- Publicly offered SteamVR as an “Open Garden”
- Full Body Tracking
- April 5, 2016



Virtual Reality's Inconvenient Truths

Exaggerations by Luckey lead to lack of public trust

- “roughly in that \$350 ballpark (Whole System)” -----> \$600 Launch Price (w/o Touch)
- GTX 970 ---> BARE MINIMUM ----> \$330
- “Screen Door Effect” minimization was insanely exaggerated

Facebook buyout was extremely controversial

- Went from cool hacker guy in his garage to “corporate shill”
- Announced Oculus Store to be a walled garden

AR Slipstreaming...



March 2016

30x17 FOV



Coming Soon...

"About the size of a VHS Tape"



**ARKit / ARCore show
major development in the
AR/VR industry**



Windows "Mixed" Reality...



ASUS Windows Mixed Reality Headset with Motion Controllers

☆☆☆☆☆

\$399.00

Slip away to immersive virtual experiences with ASUS Windows Mixed Reality. Crafted with comfort in mind, the balanced crown design and cool-touch fabric provides maximum comfort for long and relaxing virtual experiences.



SAVE \$85.00

Lenovo Explorer Windows Mixed Reality Headset with Motion Controllers

★★★★☆

~~\$399.00~~ \$314.00

Escape to a virtual world of exhilarating adventures with the Lenovo Windows Mixed Reality headset. It's extremely comfortable and lightweight, allowing for hours of fun and entertainment.



SAVE \$135.00

HP Windows Mixed Reality Headset with Motion Controllers

★★★★☆

~~\$449.00~~ \$314.00

Dive into the world of mixed reality with the HP Windows Mixed Reality headset, featuring a padded headband, easy-adjustment knob, and front-hinged display.



Samsung HMD Odyssey Windows Mixed Reality Headset with Motion Controllers

★★★★☆

\$499.00

Step into brilliant new worlds with the Samsung Windows Mixed Reality headset that features a high-resolution AMOLED display, integrated AKG headphones, and dual array mics.



Acer Windows Mixed Reality Headset with Motion Controllers

★★★★☆

\$399.00

Enter a whole new world with the Acer Windows Mixed Reality headset that features a double-padded headband, easily adjustable knob, and flip visor.

HTC / Valve Status Quo...



Vive Focus

- Standalone
- Inside Out 6DOF



Wireless Adapter

- Cordless VR



Vive Pro

- 1400 x 1600
- Built-in Audio



Valve Knuckles

- New Controller Design

Oculus Update...



- Oculus Go
- Samsung S8 Internals (+/-)
- Standalone VR
- \$200
- Comparable to Gear VR



- Oculus Santa Cruz
- Inside Out Tracking
- Standalone VR
- Better Oculus Go with Inside Out Tracking and "Touch Controllers"

Pimax 8k / 4k...

Pimax: The World's First 8K VR Headset



Pimax 8K allows users to experience VR with Peripheral vision while solving the problem of screen door effect and motion sickness

Created by
Pimax 8K VR

5,946 backers pledged \$4,236,618 to help bring this project to life.

- Kickstarter Started in 2017
- Delivery “soon”