

The Matrix

By Matthew & James



VR / Simulation





VR - The Matrix

- Virtual Reality in the matrix
- Highly Advanced
- Very lifelike experience





VR in the real world

- Already exists
- Companies like Oculus rift, leading the development of VR
- The Technology is improving everyday
- HMDS (head mounted displays)
- none as immersive as in the matrix



How does VR work now?

- VR works usually works by following where you look, by augmenting the reality around you
- These lenses focus and reshape the picture for each eye and create a stereoscopic 3D image by angling the two 2D images to mimic how each of our two eyes views the world ever-so-slightly differently.
- Speakers on the sides augment the sound to mimic the real life depth perception of sound and space



Virtual Reality has come a long way. From the world's top R&D facilities to the nostalgic days of plastic-cased digital entertainment in the 1980s, virtual reality has been through quite a bit to get to where it is now. It took some refining, now VR is poised to revolutionize the way we do just about everything, including the way we work...

Sensorama
Morton Heilig writes paper on world's first immersive VR system and makes mechanical prototype in 1962.



1956

The Ultimate Display

First helmet-mounted display to incorporate tracking. Produced at Harvard University by Ivan Sutherland.



1968

VIRTUAL reality

Virtual Interactive Environment Workstation (VIEW)

Researchers at NASA's Ames Research Center work on a multisensory, interactive, immersive 3D VR system for robot teleoperation and human-computer interface research.



1984

USAF Super Cockpit

The US Air Force develops the Visually Coupled Airborne Systems Simulator (VCASS) for flight simulation and ergonomic studies.



1985

Virtuality

Dr. Jon Waldern founds W. Industries, which leads to Virtuality Group, and sells complete real-time interaction virtual reality systems for arcade gaming.



1987

Teletact Glove 1

Advanced Robotic Research Center (ARRC) develops first haptic feedback glove, the Teletact Glove 1.



1991

First VR in Space

What later became WorldViz technology, powers the first use of VR on a shuttle science mission in space.



1996-1999

PCs Power VR

Personal computers become powerful enough to drive immersive virtual reality, opening the floodgates for VR research and technological development all over the world.



2000

Oculus Rift is Invented

Palmer Luckey, a young VR enthusiast, builds a revolutionary headset that is cheap and lightweight yet advanced enough to support compelling immersive VR experiences.



2012

Facebook Buys Oculus

Social media giant Facebook purchases Oculus for \$2 billion to support people in "shar[ing] unbounded spaces and experiences with the people in your life."



2014

1982



DataGlove

Thomas Zimmerman patents his optical flexion sensing glove for human-computer interaction, a device that is still in use today.

1985



VPL, Inc.

Jaron Lanier founds VPL, Inc. and popularizes the term "virtual reality." VPL begins manufacturing the DataGlove and other VR companies bloom around the movement.

1987



Scientific American

The Scientific American publishes a piece on VPL and the DataGlove, marks beginning of swelling global hype surrounding VR tech.

1990



First WorldViz Tech

Andy Beall, then a doctoral candidate at the University of California, Santa Barbara, builds his own immersive headset, motion tracking system, and software to conduct research with VR pioneer Jack Loomis.

1995



The Internet

Widespread use of the internet distracts the public from the failed promises of consumer virtual reality.

1999



ReCWEB

ReCWEB, the first research lab to use VR for social psychology, is founded by Jim Blasovich and Jack Loomis and co-directed by Andy Beall at UC Santa Barbara.

2002



WorldViz Founded

WorldViz begins servicing universities, research labs, engineering firms, defense contractors, and other large commercial and academic entities with custom VR solutions.

2002-2012 VR in the Workspace

Like those who first adopted PCs for the workspace, a small but present group of companies begin implementing turnkey VR solutions into their workflows and projects.

2015



Major Players Enter

While Google, Microsoft, Sony, HTC, and Samsung join the VR movement, WorldViz announces VizMove™, its hardware-independent approach to modular enterprise VR solutions.

Philco Corporation's Headsight

Headset-based VR system developed by electronics company Philco Corporation for remotely directing hazardous operations.

Future Of VR

- Oculus Rift
- What we did so far:
 - We have augmented reality around as to looks really surreal
 - Sound and sight perception
- What's in the future
 - Full movement, having unlimited space
 - Create a real VR that you can constantly live happy
 - haptic feedback to create the illusion of feel
- Problems
 - People might seek the VR as a safe haven
 - VR deaths /damage to real deaths / damage
 - Virtual crimes
 - Mental problems





AI





AI in the matrix

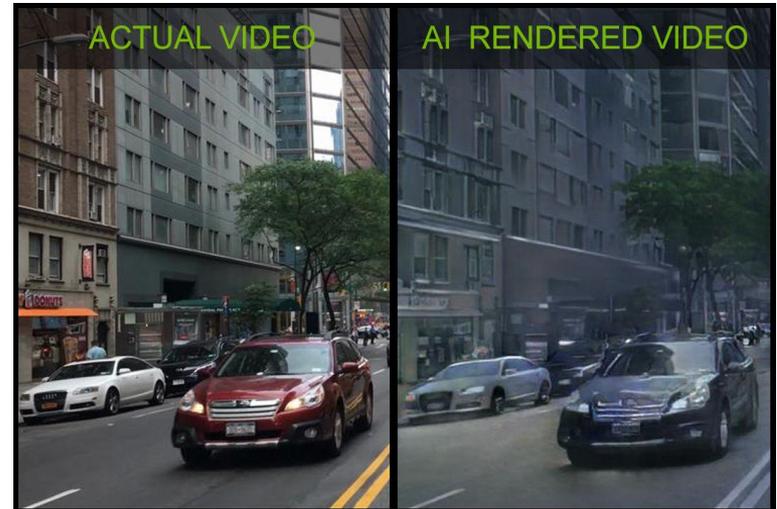
- The matrix is made by 2 sentient programs, namely the Architect & the Oracle
- They control the matrix, and later on develop enough knowledge to turn against the humans and harvest their bio-electric energy.
- Self learning programs





AI in reality

- no current ai is as powerful as in the movie
- ai created to learn specific things
- Google's Deep Learning Alpha Zero
- Chess Programs → stockfish
- SuperComputers
- Nvidia ai that creates virtual worlds





Future of Ai

- What we did so far
 - Self learning Ai
 - Half sentient
 - SuperComputers
- Future
 - Faster Programs
 - Better Self learning programs like Alpha Zero
 - Sentient programs
- Problems
 - Too Powerful?
 - Uncontrollable
 - unable to think or feel for itself like humans do





Ai

Pros

- help to automate tasks
- almost no error in work



Cons

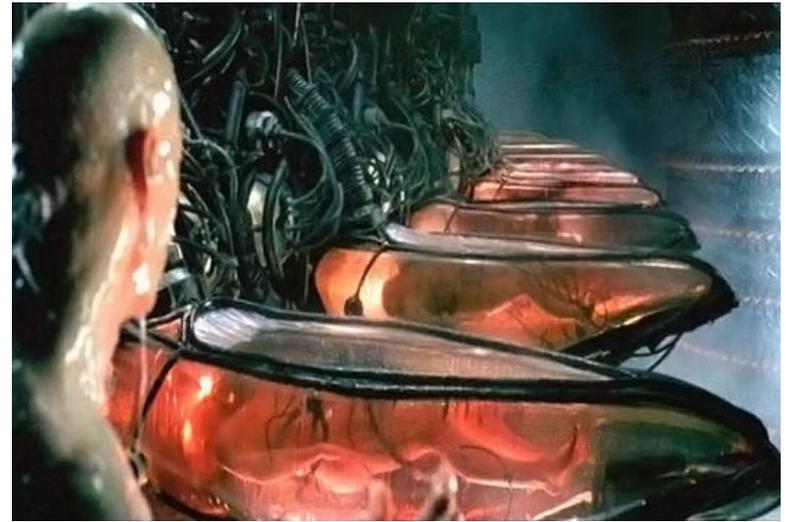
- take over jobs
- cost of initializing ai

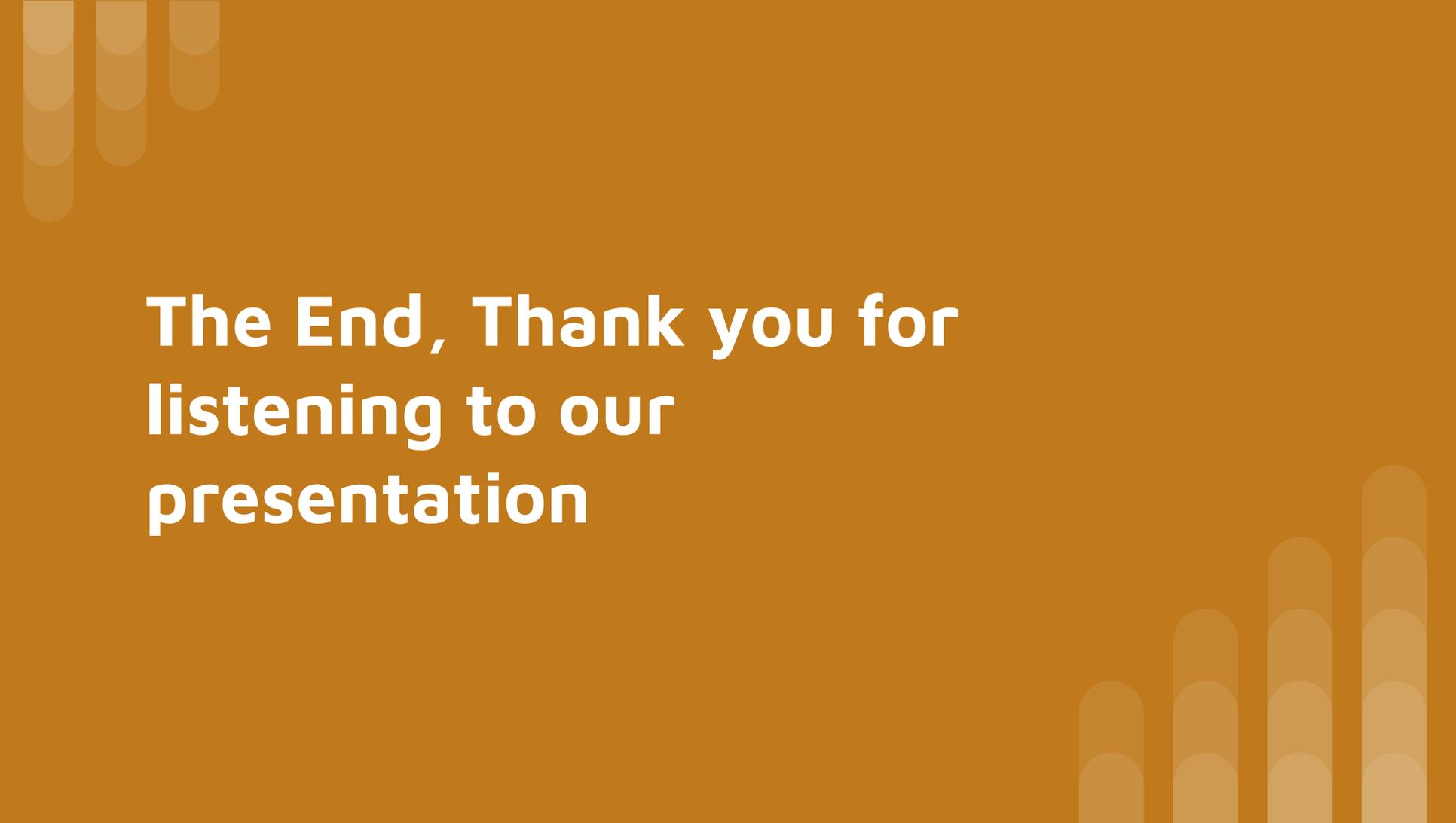




The matrix vs reality

- there are fully immersive vr but moving in vr means moving in the real world
- ai will take a long time to become human like to think and do things on their own
- ai will probably not be powerful enough to take over machines and run the world without humans



The background is a solid orange color. In the top-left corner, there are three vertical bars of varying heights, each composed of several overlapping semi-transparent orange circles. In the bottom-right corner, there are four vertical bars of varying heights, also composed of overlapping semi-transparent orange circles.

**The End, Thank you for
listening to our
presentation**