# Virtual Reality

Defeats the traditional view that fantasy is unattainable



# What really, virtual reality is?

"Technology that enable users to enter computer generated worlds and interface with them three dimensionally through sight, sound, and touch".



- ✓ Virtual reality is a new exploration in science and technology using advanced and complex mechanics
- ✓ Virtual reality an attempt to eliminate the difference between users and computers.



# How does Virtual Reality works?

- ✓ Virtual Reality Device Recording user movements )
- This information sent to a sensitive computer.
- Modified by the computer.
- Modified information than sent back to the virtual reality headset with new (modified) graphics and sounds.







# History of Virtual Reality

- First flight simulator in 1930.
- ✓ Ivan Sutherlands Contributions in the year 1965
- ✓ Modern virtual reality born in 1986 (Jaron Lanier's Contributions)



# Forms of Virtual reality

✓ Helmet with small TV screens, earphones and with a glove.

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**∀Special 3-D Glasses** 





✓ A data glove used for interactions with the virtual world.





# Types of Virtual Reality

- Window On World Systems (WoW)
  Also called Desktop Virtual Reality.
- Immersive systems includes a Helmet having sound and visual system)
- Telepresence

Links remote sensors with senses of a human operator.



#### **∀Mixed Reality**

Blend of telepresence and other virtual reality systems.

#### **Example:**

Endoscopy

Ultra sound

Pilot having virtual maps in his cabin.



# Uses of Virtual Reality

#### **Business**

- **∀**Trainings
- **∨** Customer Support

## Innovations

- **▼ Electric plans could transform how we fly.**
- **∀** Heavy metal music aimed at beat less.

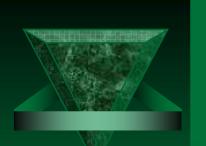


## Weather

✓ Sophistication key to clearing winter roads.

## Earth and Climate

- ✓ Mechanical and aerospace engineers use satellites to trace ozone level.
- ✓ Astronomers discover changes in magnetic field of earth and moon.



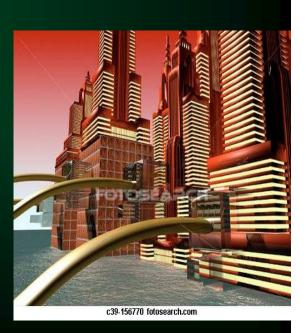
#### Wireless

- ✓ Smart phones
- ▼ Nokia and Intel team up in phone software race
- ✓ In smart phone battle, its all about soft wares.



#### Architecture

- VR is used in models of architectural.
- ✓ VR is used in reconstructing buildings and other objects.





#### Medical

- Combining images provided by other scanners and merge them to present the details using medical technologies.
- ✓ Helps the doctors to diagnose diseases without surgery.

#### Meteorology

- Forecasters use different VR programs to process information collected from satellites and radars to create models that stimulate the predicted effects of weather.
- ✓ VR determines future outcomes of atmospheric events.

### Military

- ✓ VR used in training process
- ▼ Helps soldiers to recover from traumatic experiences by providing them real situations...





## Advantages

- **▼** Substantial effect on future
- Progress on commercial designs.
- ✓ Allow users to go beyond looking at computer screen
- ✓ Users wear special 3-D glasses
- ✓ Fiber optics and electronic cables used in virtual reality device.



## Disadvantages

- ∀ Wastage of time
- **∀**Expensive
- ✓ Virtual reality beyond basic human needs.
- ✓ Virtual Reality leading to uncertainty of world.



## Future

- ✓ Matrix movie( Virtual Reality in 5 dimensions)
- **▼**Space applications
- ✓ Medical field....



## Conclusion

- ✓ VR originated as a marginal technology associated, on the one hand, with the military, and, on the other, with science fiction. It was taken up by computer companies as a product.
- ✓ . VR's appeal has largely been due to its marketing.
- ✓ It proposed a paradigm shift that computers can be "reality generators," not just symbol processors



- ➤ The VR fraternity gave a history to this technology, writing narratives which fitted VR at the apex of the historical process. To give a sense of cultural scale, they compared their technology with others, such as flight, the telephone and the printing press.
- Meanwhile it has been tried to broaden the range of areas to which the technology could be understood to apply.
- ✓ VR now has a solid infrastructure of developers, and a receptive public. This success can partly be attributed to the technology itself, but as this essay has shown, the process is more complex.



## References

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#### Presenters

- **∀**Bilal Chaudree
- **▼**Samiuddin khan
- ✓ Ayesha Gul
- ▼Zahid Ali
- **∀**Qamar Ali
- ✓ Qurat-ul-ain Yousuf



# Thanks