Augmented Reality

What is Augmented Reality?

- Wikipedia : **Augmented Reality (AR)** is an interactive experience of a real-world environment whereby the objects that reside in the real-world are "augmented" by computer-generated perceptual information,

- Benny : AR is about adding/changing the image a person is observing of the real world

- This is NOT Virtual Reality

- Purpose : Help a person to accomplish a task!

- Many applications!

Types

- Messages are displayed as part of the image
- Writing added to objects
  - A person profile to his face in a conference
  - Car speed to the car in front of you
- Modified informative reality
  - Waze colored rout
  - Arrows for action
- Inserted virtual objects
  - Furniture to a living room

Technical challenges

- What exactly is a person observing?
- What does the person want?
- What does a person need?
- How to get an augmented reality image?

Equipment

- Smart glasses/ windows
- Camera
- Pupil trekking
- Image screening on eye retina
- Smart lenses (Apple just bough a company)
- Gesture trekking
- Personal sensors

Market status

- No real market
- Google failed 5 years ago
- Intel with a simple message only – stopped
- Microsoft Hololense mixed
- Several small companies

- Major developments at Apple, Google, Samsung

Developer challenge

- Smart glasses from top companies are expected in a year (Apple event 2019)
- Understand their capabilities
- Come with leading applications
- Tailored for a person needs!
- Recommended : Use Vuzix M300

Tim Cook : Augmented reality will change everything!