Technical and financial challenges of AR

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TECHNICAL CHALLENGES OF AUGMENTED REALITY

- **Internet** – Coverage and internet speed are critical
- **Rendering of virtual objects** – Overlay must be precise, in real time and with the correct perspective
- **Smartphone AR** – Quality of camera is not optimal, GPS is not accurate and does not work indoors
- **Batteries** – Large batteries needed, conflicts with wearability
- **AR apps** – Apps draw data from databases which must be up-to-date, complete and error-free
- **Human component** – Health problems? Intrusion, criminal use
- **User-friendliness** – Control and image display, social acceptability

FINANCIAL CHALLENGES OF AUGMENTED REALITY

- Global market for AR is expected to increase from EUR 500 million (2015) to EUR 7.5 billion by 2020 and the number of users from 60 million to around 350 million (http://tinyurl.com/n4sru4r)
- Growth forecast is only possible if prices for IT hardware and data transfer continue to fall sharply and capability improves rapidly
- EU has numerous programs for promoting AR
- Early adopters of AR needed
- Chicken-and-egg problem: consumers only buy if functionality is great, producers only develop is market is big enough
- Success stories of Oculus Rift and Magic Leap