Real AR - for Geospatial Applications and Beyond
“Never mistake a clear view for a short distance”

Paul Saffo, noted Silicon Valley futurist
“Never mistake a clear view for a short distance”

Paul Saffo, noted Silicon Valley futurist

1997 Trimble Augmented Reality patent filed
“The growth and impact of wearable technology in today’s workplace has been broadly recognized by industry analysts. Gartner research expects smart glasses to realize $1 billion annual cost savings in the field services industry alone, and IMS Research conservatively estimates the wearable technology market to grow to $6 billion by 2016.”

Source: 2015 Zogby study commissioned by APX Labs
Mixed Reality

Overlaying digital information on the physical world in real time.

Bridge the gap between the virtual and the physical worlds

Real
World Partially Modelled
Unmodelled

Virtual
Completely Modelled
What is HoloLens

Wearable, self-contained computer

Sensors that map the environment

See-through holographic display

Windows 10

Interaction with 3D holograms blended into the real world
Transforming the way professionals consume, interact, and communicate information

From information communication to Information experience

"Ascending and Descending"
M.C. Escher
AR in Design
AR in Facilities Management
CyArk and the Annaberg Plantation (USVI)

http://archive.cyark.org/annaberg-sugar-plantation-intro
AR in Site Visualization
...and a Tango Example
Key Functional Capabilities

- Inspection
- Service
- Attributes everywhere
- Connecting the Internet of Un-connected things
- Collaboration and first-person presence – across disciplines and geography
The evolution continues...
Augmented Reality is now real, and it is personal. Practical commercial devices - Microsoft HoloLens and Google Tango to name two - offer the ability to mix our digital reference data and designs with the real world. And, they allow us to collaborate across disciplines, geography and time zones. While some of the largest consumer-oriented companies are enabling this change, the primary applications over the next five years will be to commercial and government workflows, benefitting Geospatial professionals.

While these new devices are amazing, the hard work remains to integrate them into the workflows and tools people use to do their jobs for data collection, validation, inspection, and more.