



AUGMENTED REALITY- the real amplifies

Augmented Reality (AR) is a hot topic right now, attracting much of the hype that was reserved for apps a few years ago. It is the experience created when content from the virtual world is overlaid on top of the live video feed of the surrounding environment, captured by the phone's camera.

The technology leverages the handset's location and inertia sensors (GPS, compass, accelerometer etc.) to determine the device's position and marries this with virtual content supplied by backend information servers in conjunction with search, advertising and image recognition engines. It will take mobile marketing apps to whole new levels. Experts say that this technology can unleash a host of new apps that go beyond barcodes to create a more interactive experience on any mobile device.

AR is changing the way its users view the world. With augmented-reality displays, which will eventually look much like a normal pair of glasses, informative graphics will appear in your field of view and audio will coincide with whatever you see. These enhancements will be refreshed continually to reflect the movements of your head. Similar devices and applications such as Wikitude, Layar, Word Lens, etc. already exist, particularly on smartphones.

With AR, digital information can be automatically 'connected', in context, to real world objects. This can take many different structures but is best described as a three-stage process.

- 1) Sensors in the user's device (such as camera, GPS and/or compass, microphone, even a thermometer) detect a 'condition' in the local environment – say the visual image of a recognizable geographic feature like a mountain or famous building.
- 2) The application or 'system' finds the digital data (any text, image, 3D model, video, URL, sound, etc.) that has previously been associated with the specific condition in the local environment identified by the sensor.
- 3) The digital information is presented visually (or aurally) to the user in such a way that it is 'synchronized' with the real world. It is only presented as long as the condition remains the same. When the user's condition changes, e.g. they move away from the object, the digital information disappears or is replaced with new information if the sensors are triggered by another condition.

Currently, the augmented reality market is dominated by small start-ups, but as the market picks up, experts expect the established industry players to increase their involvement.

Note: Users must be aware and careful while communicating and sharing information collected from various kinds of sensors in real-time to be communicated from device to users and from device to device.

Source: <http://www.telecomasia.net/content/augmented-reality-check-mobile-marketing>
http://www.telco2research.com/articles/AN_augmented-reality-role-telcos_summary