

A new look at reality

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DID you know your smartphone can be a magical viewing glass?

A locally-developed food-spotting application called buUuk on the iPhone can tell you which eateries are nearby on a 2D map using the phone's GPS feature. And when you hold the phone up and activate its camera along with the app, it uses the handset's digital compass to orientate where you are and puts a layer of information over the live video feed from the camera. As you move your camera around, the app can show you the location of the nearest restaurants, the cuisine they offer and their ratings.

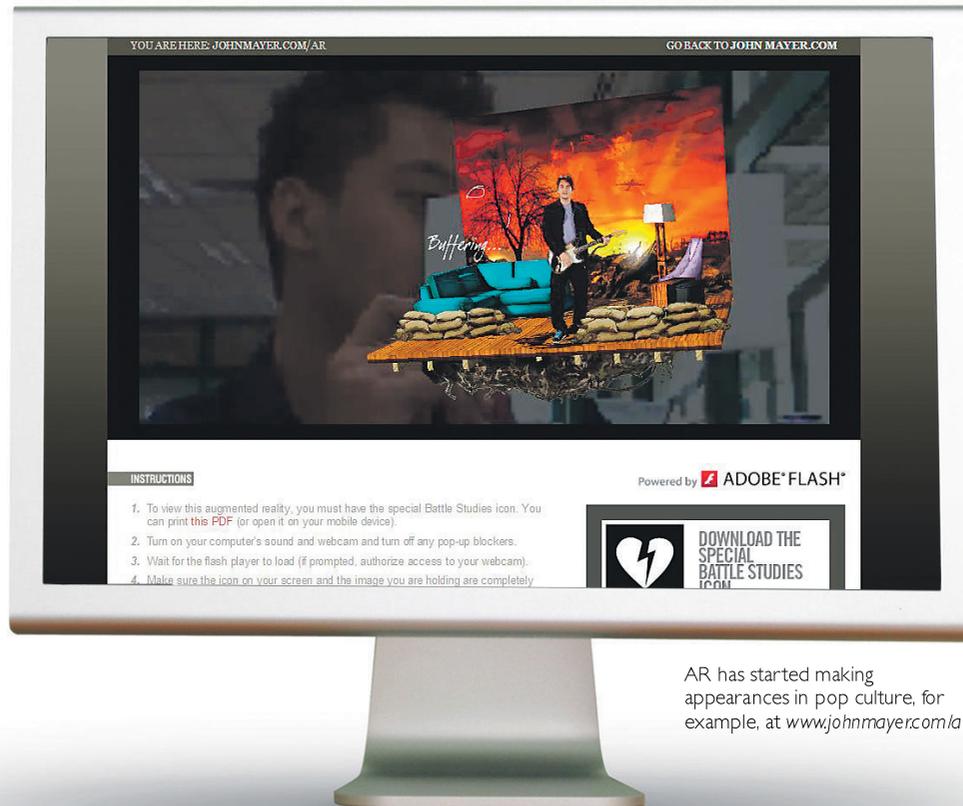
This process of layering information and visuals over the real world is called augmented reality (AR) and it's not just confined to smartphones with GPS or digital compasses. It can be enabled on your desktop computer, too.

"Some people just can't read maps or it might be dark and street signs are not so clear. With AR, users are pointed in the right direction, in addition to the map — so it helps them to navigate better," explained Mr S Mohan, a co-founder at buUuk (<http://buuuk.com>).

His firm is planning to release buUukAbout, an AR-centric mobile application that can help people find points of interest in Singapore.

While it doesn't have the catchiest of names, AR has started making appearances in pop culture. Using a webcam and a special symbol that can be easily printed, fans of pop artist John Mayer can appear in his Heartbreak Warfare music video posted online (www.johnmayer.com/ar). When the fans hold up the printed symbol to their computer webcam, they will be superimposed onto the background of the video.

Esquire magazine also published an interactive AR issue (www.esquire.com/the-side/augmented-reality) where you



AR has started making appearances in pop culture, for example, at www.johnmayer.com/ar

can see a video of Robert Downey Jr introducing the magazine as you hold up the cover to your webcam. In a fashion spread, a model's clothing would be adjusted accordingly as you control the weather onscreen by moving the magazine around.

Why the hype now?

"After about 15 years of AR being developed in research labs, the technology has hit the threshold where AR can be run on cheap and mobile devices," said Dr Adrian David Cheok, a director of the Mixed Reality Lab (www.mixedreality.nus.edu.sg) at National University of Singapore. The lab conducts research into interactive new media technologies "through the combination of technology, art, and creativity".

According to Dr Cheok, AR researchers thought the technology would be useful for professionals, such as architects.

"However, they didn't realise that architects are actually quite conservative. Applications that have become popular

are related to location-based information, entertainment, advertising and learning for children. These apps can take advantage of seeing virtual information layered on the real world."

You might soon see a lot more commercial uses of AR here. Mr Shen W Heng, creative director of local interactive design firm H1Studio (<http://ar.h1studio.com>) gets up to three enquiries a month on AR-based applications from companies. His firm is developing a website for Samsung that will employ AR to promote the launch of its 3D television sets.

"Companies like using augmented reality because it can put the product in the hands of users virtually," said Mr Heng.

"It can be difficult to convey the concept of 3D TV technology to consumers in a traditional way. Although the technologies are different, augmented reality allowed us to communicate that in a creative manner for our upcoming launch," said a Samsung spokesperson.

Providing more than just a marketing flash factor, AR makes it easy for people to make better sense of the physical world

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Mr Shen W Heng, creative director, H1Studio

around them — it's like having a bionic eye that can provide you information just by looking at things. Its applications are limited only by the imagination.

"In the future, we are going to see even more exciting augmented reality," said Dr Cheok. "This will be with all of our senses, not only audio and visual. Imagine you can hug your children in a different location, or be able to smell the wine that your spouse is smelling in France."

He added that AR applications mashed-up with social networks could become killer applications. For example, a restaurant patron could leave a virtual message on the window of the restaurant with his thoughts on the food, or leave a message for his friends at a particular location.

Already, there are mobile applications like Layar that can point you to the nearest tweets and where they were posted when you look through the camera on your Apple iPhone or Android smartphone.

Privacy made public?

Here's a thought for those concerned with privacy: With face-recognition technology already available on consumer cameras, we might even be able to siphon data from the web and find out information about a person just by pointing our smartphones at them.

Google's visual search mobile application for the Android platform called Google Goggles (www.google.com/mobile/goggles) already lets you search simply by taking a picture of a namecard or information on a product like a book. But in the future, it might let you "Google" the real world as you see it.

Said a Google spokesperson: "Let's say you're walking down the street, using an augmented reality app, like Google Goggles, on your mobile phone to see what's interesting around you. Through your phone's camera, you see a billboard for a great product — basketball shoes. Using image recognition, the app could recognise that it's a billboard for a particular shoe brand, let you choose to watch a video of one of its shoes in action, show an expandable ad for that brand, display all the nearest stores on an accompanying map, and include a way for you to order a shoe and pick it up on your way home from work."

So, would you rather fiddle about and search for a location on your phone by keying in the text, or would you rather look into your magical viewing glass?

Site of the week

www.tovisitor.com

Do you have an online shopping addiction you need to do something about?

Or have you been obsessively checking your ex's blog every five minutes? *Tovisitor.com* can help rescue

your money, time and sanity.

This website gives you a hand in breaking online addictions by limiting you to one visit within a designated period of time (say, 60 minutes).

When you try to access the site for a second time that hour, you are taken to an intervening webpage with text persuading

you not to go there.

However, if you absolutely must, you can still give in to temptation after four clicks. This simple deterrent works by creating a new link from the website's address for you to use in place of the usual one.

To Visit Or Not also helps you kick

the habit by placing a timer above the website (some sites like Facebook prevent it from working, however) as a constant reminder of how long you have been there — its way of guilt-tripping you into leaving the site and, hopefully, doing something more constructive instead.

MAY CHUA