

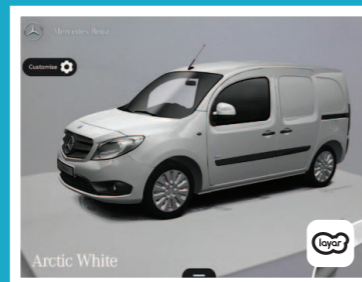
HOW AUGMENTED REALITY IS AUGMENTING THE INDUSTRY

Andy Nock is Head of *rts* eSolutions, a UK based specialist learning company within the automotive sector. Here he provides an introduction to Augmented Reality and how it is being used

You may have recently seen the hype around the new Google Glasses, due for release later this year, which are set to be the next big step in Augmented Reality. The question I am now being asked is what is this thing called Augmented Reality? In a nutshell, it is a view of digital information shown on top of live video as it is viewed through the camera on the device, such as that on your mobile phone. Because your device knows what it is looking at (i.e. a reference image), or even where you are located (using GPS data), specially designed apps can augment additional information such as text, images, video or even 3D models on top of the reference image.

You may think this kind of technology can only be found in science fiction, but over the past 5-10 years Augmented Reality has really developed, especially around product advertising, promotional events and training. Reference image markers have moved on from the distinct black and white QR codes to photos, diagrams or even this magazine page... read more about this later.

HOW HAS IT BEEN USED WITHIN THE AUTOMOTIVE INDUSTRY?



MOBILE APPS

Most manufacturers have apps available on the app store allowing you to print a reference image and view its newest model in 3D. You are usually able to change the colour of the car or even change the wheel type.

TECHNICIAN AID

A number of manufacturers have posted videos onto YouTube to show how Augmented Reality could be used to support the technician in servicing a car. By using a specially designed headset, technicians are able to see a visual representation of where parts are to be fitted.



HUDs

Looking into the future, manufacturers will no doubt be using it on the windshield (windscreen) to display information around them, such as sat nav information... This will come with its (safety) complications but it is certainly a possibility.

"Augmented Reality is a great tool which really has that 'wow factor'. It can be used for promotions, events, training... in addition to many other things"

Using AR for Learning

Being able to add 'virtual' objects and information has allowed the *rts* group to complete some great projects. As part of a recent course, our client had commissioned a detailed 3D model to be built.

The 90+ delegates were able to aim their iPads at a 6ft floor-mat (a wireframe drawing of the vehicle) to display a full size 3D model of the van. They could instantly change the spec, colour and even the wheels and by walking around the mat, they were able to view the vehicle at any angle they wished.

Augmented Reality was also used in a project to help learn about a new car. Whilst reviewing the 'walk around' session, delegates were able to view videos, detailed animations and access PDF documents by just scanning reference cards on the car. It

really added to the delegate engagement and allowed them to gather data that would have otherwise been difficult to obtain.

Summary

In summary, Augmented Reality is a great tool which really has that 'wow factor'. It can be used for promotions, events, training... in addition to many other things. However, this is all well and good but the user needs to know that it's accessible, what app to use and how to use it – it's not as simple as just adding a logo to a poster and therefore, it needs to be communicated well. Clear instructions are usually provided, like on this page. However, for our training events, *rts* eSolutions provide trainers with clear directions, instructions and advice and support the delegates with the devices already set up. ■

Want to see Augmented Reality in action?

Both pages of this article have been optimised for Augmented Reality using an app called Layar. Please refer to the instructions for more information.



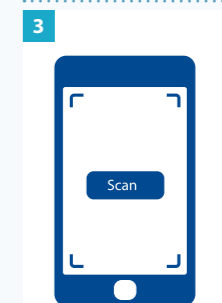
STEP 1

Go to get.layar.com to install the app on your smart phone.



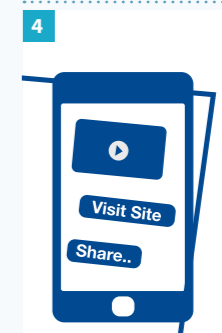
STEP 2

Look for pages with the layar logo (e.g this one).



STEP 3

Open the app, hold the phone above the page and press the 'Tap to view' button...



STEP 4

...and discover an amazing extra layer of content.