

Augmented Reality; delivering on the hype



“Every so often a new technology arrives that brings with it new commercial opportunities that shake up the marketing and advertising industry. Augmented Reality is one such technology. AR is about bringing immersive advertising to life, engaging with consumers through a rich experience combining video, 3D and sound, capturing the imagination, and maximising the brand engagement experience, like no other medium can. It’s a cool technology, but it’s also a technology that is courting hype and misunderstanding. Like any other marketing or ad campaign, there has to be clearly defined objectives and there has to be ROI.”

Scott Lester, CEO, Flixmedia.tv

Introduction

To explain Augmented Reality’s potential to advertisers and marketers, analysts regularly resort to futuristic imagery, most notably the personalised adverts and virtual interfaces that presented themselves to the Tom Cruise character in *Minority Report*.

However, the association with science fiction may be damaging to a true understanding of AR since it fails to highlight the science fact of existing and proven commercial applications from such big names as Coca Cola, McDonald’s, Proctor and Gamble, Acer and LG. Nor is it just the sheen of science fiction that may be detracting from the seriousness of this technology. There is reason to suppose that even the impressive numbers bandied by

consultants may be understating the true market potential for a technology fast going mainstream.

A report from consultants Juniper Research is frequently cited in this context since it predicts that the revenue from mobile AR will reach \$732 million in the US by 2014. This, however, may be simultaneously an overestimate and an underestimate. An overestimate because it is reliant purely on mobile applications (of which more later); an underestimation because it fails to take into account the importance of desktop and kiosk-based applications. It is possible that attention-grabbing figures such as Juniper’s calculations may actually underplay the scale of the future market.

AR is not just one technology, or one implementation of it. The term is used to cover a number of different approaches that have in common the fact that they present a view of the world around the user with additional information layered onto it.

In practice this translates to any number of approaches including familiar examples such as the 'game line' appearing on a sports pitch during a match on TV, or the heads-up display of pilots. In the current marketing context the main discussion of AR examples revolve either around the use of webcams or smartphones.

With webcams the principle technique is to bring together product information - such as enhanced barcodes printed on magazines or posters - with the technology that can interpret that information and display it as a video. For example the BBC magazine Focus ran a cover featuring a Scream-style death's head mask. When users visited the magazine's website and held that cover up to the webcam a spider appeared to crawl out of the mask's eye and run across the magazine cover. The embedded code triggers the animation which is integrated with the webcam image of the magazine being held up.

"70% of those who went to the site chose to live the experience which is a great conversion rate and of that group 13% then purchased the project – compared to an industry standard website conversion of around 0.5%."

Myles Peyton, Director, Total Immersion



This augmentation has been seized on by marketing divisions looking for eye-catching means of promoting products. Major brands such as Coca Cola and McDonald's have been quick to jump and exploit the quiriness and early fascination of a technology that is still in its infancy. Both companies have developed campaigns around using a webcam. As webcams move from being a specialist add-on, to a built in feature for notebook PCs, it seems inevitable that this use of AR will become commonplace.



The potential is huge - even a discarded wrapper can now become an item of value when held up to a webcam. Importantly this could shape consumer behaviour because in order to reveal their AR 'bonus' the consumer has to then visit the manufacturer's site. The opportunity is there not only for relationship-building but also for very precise audience monitoring since a combination of the physical code and the

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IP address of the computer being used gives detailed insight into the location and behaviour of users. In this case the AR provides an instant bridge between information or experience in the real world and further added value online.

Myles Peyton, Director of market leading AR authoring company Total Immersion claims that AR is a leap beyond traditional advertising, a leap which can access as yet untapped or hard to reach audiences.

"The big strength of AR over traditional advertising is that the consumer changes from being a spectator to become part of the experience," says Peyton. "It taps into the Facebook, Generation X target audience. Another big draw for marketers and executives is that AR taps into those hard to reach audiences who wouldn't normally look at ambient media. The big point is that AR is different. The one discretionary choice consumers have is their engagement time and what they engage with. AR technology breaks these barriers down and encourages them to engage with brands."

'Acer laptop lives' Campaign

This approach has been used as a means of showcasing products using virtual demonstrations - for example the Flixmedia produced Campaign for Acer in which code on an advert in T3 magazine comes to life when presented to the website via a webcam. The code summons a three-dimensional model of the computer so that the user can 'feel' their way around it. Similar product showcase examples have been used by Tissot, Olympus and Ray Ban so that users can 'try' products without having to find a retailer.

This crossover point between physical retail and the enhanced reality means there is another point of contact between potential customers and the products or brands that interest them. From a marketing point what is significant is not just that it means bringing the brand into the consumer's home, but also that this contact can be tracked. Scott Lester, Chief Executive Officer for Flixmedia.tv, has said of the Acer Campaign that: "we were able to track the journey each consumer took to live the experience, allowing us to understand precisely where augmented reality can succeed commercially."

This, according to Michelle Helme, Online Manager at Dabs.com was essential. "Flixmedia managed the AR campaign end to end for Dabs.com," comments Helme. "They produced the AR video content, designed the dynamic landing pages on the dabs.com website and managed the implementation of the campaign from a technical perspective. They also delivered full reporting metrics on consumer engagement. All we needed to do was to place the advertising in T3 magazine."

"Flixmedia also delivered full reporting metrics on consumer engagement."

Michelle Helme, Online Manager, Dabs.com

Peyton reinforces that point when he notes that "we looked for the synergy with Flixmedia because we are the experts in AR and they are the experts in real time content management and content production. The way we deliver experiences via the Net and a combination of our platform and Flixmedia's analytical software means we are able to track the whole user journey. That includes who logged on, who lived the experience, how many repeated it - even what was their favourite viewpoint."

Crucially this includes the relationship between the experience, and the subsequent sales.

Peyton adds: "70% of those who went to the site chose to live the experience which is a great conversion rate and of that group 13% then purchased the project - compared to an industry standard website conversion of around 0.5%."

It is that kind of figure, rather than imagined mass market projections that provides the most convincing argument for the new technology. Undoubtedly the successful marketing applications will not simply be those that produce the most eye-catching applications (though that will always be important) but those that then integrate the tracking potential of the application with other channels of market research.



Future application of AR

The ability to take something as commonplace as a webcam and use it to transform a physical object into a virtually enhanced one is of enormous potential for almost any aspect of product marketing. However AR's likely reach will go beyond the desktop and extend to the concept of overlaying information onto the world around us through the use of smartphones.

Smartphones, with their built in cameras, growing processing power, 3G network bandwidth, and geolocalisation (either by inbuilt GPS or triangulation from phone masts) offer huge potential as AR devices. There have been a number of different applications trialled but the essential approach is that the user 'sees' through the phone's camera lens only with the addition of information layered over the image.

Tube maps, restaurant guides etc. can be overlaid on images as soon as the system recognises where the user is and these have caused a great deal of interest. Marketers are quick to point out that a smartphone not only 'sees' the world in front of a user and can handle the extra data, but is also truly personal. It is registered to an individual and in the case of customers on mobile contracts, it is also tied directly into billing information.

Potentially then an AR application could not only advise a user that a branch of their favourite restaurant is hidden away around the next corner, but could offer them a voucher for their lunchtime meal if they present it (on the phone) and redeem it in the next fifteen minutes.

"AR will one of the top 10 disruptive technologies from 2008 through to 2012."
Gartner



It's a compelling marketing story and yet for all the attention it is receiving there are hurdles to the smartphone based AR approach. Firstly for all the attention that iPhones and other top-flight smartphones receive in the media (media professionals are often early adopters of these devices) their numbers in the market are sufficiently low that even Juniper, which predicts AR revenue to top \$732 in the US in four years, currently only sees the 2010 revenue as likely to reach \$2 million.

Juniper's prediction is also that revenue will mostly come from POS purchase and incremental revenue plus some advertising spend and this touches on one of the key problems for the fledgling AR industry as it stands. But it's early days and we are at the bottom of the learning curve. It's possible to predict that the AR of the future will be seamless – on the body, tapping into our own reality. It's audio and kinetic, hitting all the senses.

AR is here for the long-term. It is already being used in glasses and AR in contact lenses will definitely be around in 10 years time, as well as further developments in bio augmented reality.

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Conclusion

To date there has been a sense that it is enough to field an AR campaign without the need for concrete ROI figures. Many campaigns haven't adequately incorporated tracking of user activity, as for example the Bouygues Telecom application in France which combined information from the French Yellow Pages and Allociné to give listings of film times and cinema locations when the phone is used in cities across France. The goal is to promote Android phones and attract B2B customers for similar projects but while figures are available for the number of downloads there has been no effort to track usage numbers.

It's not an isolated example and it seems that in many cases the sheer novelty of the approach has overshadowed its potential usage for detailed analysis of user behaviour.

"Sosro the tea manufacturer saw a 400% uplift in sales by using AR as the backbone to their marketing campaign online and in store."

There are other limitations to AR on the move including the fact that most GPS systems are only accurate to around 30 feet (9 meters) and don't perform well indoors. Undoubtedly this will improve with future phone generations. Similarly while there is much talk of applications such as face recognition technology that could mean pointing the phone at someone will bring up overlays of their social network data, we are a long way from that being sufficiently reliable for commercial reality.

"Nokia used AR to increase dwell time at the CES 2010, increasing dwell time to 25minutes compared to significantly lower dwell times without AR."

That said the attractiveness of current AR examples provide a strong argument for the commercial opportunities of the future and it is worth noting that the leading AR software vendor, Layar, has now signed distribution deals with sufficient handset suppliers that Reuters estimates one third of all smartphones will soon ship with AR software built in.

Furthermore the insistence on mobile AR may be missing the point. Peyton claims that Total Immersion was involved with some 270 projects in 2009, while the number of projects for 2010 is close to surpassing that already. His analysis is telling; "today our revenue around mobile is less than 1% because of our focus on all platforms. Nonetheless that's solid business for us so based on the Juniper projection for mobile alone this is going to be a one to two billion dollar market in four years."

In short the potential is clear, and the technology is proven. The hurdles to adoption are falling and in many cases it seems that the hurdles to ROI are now very much down to the marketers and to what degree they understand the necessity of moving beyond the eye-popping effects and focusing on the serious tracking and revenue models to accompany them. Peyton's claim that AR helped Dabs.com to increase its sales of Acer laptops is compelling and a real sign that we are witnessing the start of a sea change in advertising thinking.