Pushing Blu-ray farther - Augmented Reality

The new generation of Blu-ray players gives consumers more opportunity to enjoy the BD experience by uploading and downloading content through the Internet. NICK BROWN, CEO of Crossplatform, introduces a new technology, capable of adding even more life to a BD-Live title – Augmented Reality.

Audiences are increasingly familiar with this web-related concept and they are beginning to enjoy the wealth of possibilities for Internet-connected devices, especially with camera capability.

Increasingly, there is also an appetite for more video and 3D experiences, either from user-generated content (UGC) or exclusive professionally-produced 'snackable' content across platforms, generating huge opportunities for both marketing and content distribution.

Augmented Reality (AR) was originally used by defence organisations to create simulated environments. Now AR is being used to entertain consumers using facial and image recognition that drives video and 3D animation. As processing power increases and software becomes more affordable, interesting applications are being revealed to the consumer for the first time.

In recent years, consumers have been exposed to ever-increasing quality through formats designed to provide an incredible in-theatre experience (big sound, true colour and depth). They have seen SD give way to Dolby 5.1 surround sound, and are now enjoying the benefits of HD, with a dawning realisation that pretty soon 3D will yet again change their experience of home entertainment.

Combine this expectation with the increasing use of broadband connections, and the way is clear for BD-Live. This is a great opportunity for studios to leverage the full combination of HDTV, broadband, casual gaming and social web trends to transform the domestic viewing experience. BD-Live adds a new dimension — online connectivity — to the high-definition video experience, turning a disc with a movie into a doorway to a virtually limitless, interactive world of content, commerce and community.

So, how do we take this even further? If a webcam is connected to a Blu-ray device

via a USB, the possibilities are endless. Sony PlayStation Eye Camera (under £25), for example, was launched late in 2007, allowing free voice and video chat with friends on the PlayStation Network, as well as providing access to more games. This is now regarded as a must-have for gamers, who can now 'shoot' em up' online while using editing software to create their own special effects, further enhancing the in-game experience.

We are getting to the stage where, if consumers visits a movie fan page on their favourite social networking site, they can record profile pictures or other more creative material.

Augmented Reality moves this to another dimension: the ability to see exclusive, interactive content in a number of smart ways. By holding up the Blu-ray packaging to their webcam, consumers have the ability to enter a new world of animation and interactivity. Augmented Reality can also make the consumer the star performer. By showing their face to the webcam, Augmented Reality can use face tracking to immerse the consumer in the Blu-ray experience. Alternatively, 3D creators can take the consumer into a myriad of new directions.

The potential synergies for BD-Live with Augmented Reality are mind-boggling. Opportunities abound for a wide variety of Augmented Reality experiences using social media, webTV and even totally immersive augmented avatars. This convergence enables users to become directly involved, moving from passive to active, and becoming part of the story. We are in the middle of the most significant technological shift since the entertainment industry went digital. Consider these examples

Sony EyePet using Marker Tracking AR. EyePet (pictured left) is a responsive virtual pet that reacts to your every move, providing entertainment and fun for the whole family. A loveable, simian-like

pet, EyePet lives in an on-screen picture of your living-room captured by PlayStation Eye. Working in AR, EyePet is fully aware of people in the room and will interact with you and your environment. Tickle it by waving fingers in front of the camera and it laughs; poke it and it jumps; create a ball and EyePet will chase around the screen after it.

Paramount Pictures using Face Recognition AR. A recent brief from Paramount was to 'create an early audience, building online activity to promote the international release of *Transformers: Revenge of the Fallen*, (pictured below)

Steve Hunt of Paramount was quoted as saying that "…we're looking to push the boundaries of creativity…"

French AR specialist and Crossplatform partners, Total Immersion, worked together with Paramount Pictures International and Picture Production Company to launch 'We Are Autobots', a ground-breaking Augmented Reality web application placing a 3D head of Optimus Prime directly onto the head of the website viewer.

This became a highly successful viral campaign with two million visitors to the site with an average three-minute dwell time, and now, eight months after the launch, it still achieves about a thousand new visitors a week on YouTube.

So, how can studios make the most of these opportunities? What are the risks and challenges?

First of all, now that the HD format war is over, studios are making every effort to help

Blu-ray grow. In fact, according to Strategy Analytics, by 2012 there should be 132m homes worldwide with at least one Blu-ray device.

The appetite for HD has been incredible,

fuelled by several factors including aggressive pricing of flat screen TVs. The growth has also been fuelled by the launch of HDTV across cable, satellite and terrestrial in the UK and the switchover to HDTV in the US. Using devices such as DVRs and Blu-ray to develop and acquire content libraries is the next logical step for consumers.

With the launch of BD-Live, Internet connectivity is added to the mix, enabling discs to offer live, web-based features including live chats, picture-in-picture streams, and downloadable content such as trailers, ring tones and games.

From here, AR is just an additional step. By adding a webcam to the Blu-ray device – typically a £25 plug-in or a standard feature on most modern laptops – Augmented Reality has the capability to take the viewer directly into the world of the movie.

Initially aimed at the young and technically-literate, the ease with which personalisation and video delivery can be effected means that rapid adoption by a wider consumer profile can be expected across a diverse range of studio content.

The challenges
However, there are three significant challenges for commercial success with AR: studio partici-pation and software integration, consumer education, and consistency of delivery over the web.

■ **Studio participation and software integra-tion.** So, where should AR fit in the supply chain? Ideally, the AR team should be involved as early as possible in the creative process to determine the feasibility, timings and cost of the treatment. Having established the framework, the creative team can then develop their ideas and any animation or 3D. The assets can then be assembled and integrated into the overall package, including any interactive features. Once the image for tracking purposes has been agreed (typically the Blu-ray packaging) the AR team would perform 'the stitch' that would bring together the assets and the image to form the overall AR treatment.

Some adaptations will need to be made to accommodate the player, for example whether the hardware is a Sony PS3 or a Samsung standalone.

■ **Education of the viewer.** OK, but how do we make the viewer aware of the 'extras'? We're already working with magazine publish-ers and major brands to help educate the consumer about Augmented Reality. Whilst AR software suppliers include a technology that uses a marker to identify itself, at Crossplat-form, we believe that markerless technology works better for most projects.

Nevertheless, we believe that an optional symbol, which is known to consumers, will help everyone. This has led us to move towards a trademark symbol that will identify that a Blu-ray title contains Augmented Reality.

■ **Consistency of delivery over the Internet.** A good user experience is essential. If we have conquered any standards across Blu-ray devices, established an appetite for AR with the viewers, and instilled confidence in the patient, tech-literate user then it is well worth the wait.

If delivery of the AR experience is coming from the Internet, based upon the vagaries of broadband delivery from a range of servers, it is difficult to predict behaviour and response times. There are two solutions for this; commit to a technical infrastructure that can mitigate performance issues, or integrate the AR player 'plug-in' into the Blu-ray device. In the PC world, AR experiences can be delivered by downloading the plug-in or with a direct interface 'server-side'. Both have their advan-tages and disadvantages, predominantly driven by speed and control.

The strategy
What is the best strategy for AR and Blu-ray? What is the appetite for AR within the Blu-ray community, especially with the advent of BD-Live? In order to understand how AR could be implemented into the BD experience, we need to look at the current process flow for BD-Live. If the studios want to track AR from a retail environment into the home and across the web, then a consistent approach would be to use AR as a layered product within the BD-Live supply chain. This would certainly resolve web issues in the short-term and avert the need to build standards and unify manufacturers at this nascent stage of AR development.

Yet, AR could also provide a bridge from retail outlets to the PC or Mac. AR is a fabu-lous live experience, and as such has the potential to give consumers a terrific taste of the Blu-ray experience in store.

In summary, whilst there are some obvious technical issues to resolve, the opportunities to add value to the BD-Live proposition through use of Augmented Reality are clear. We are working with Blu-ray authoring houses to scope these issues and to help studios develop their creative ideas incorporating Augmented Reality.

BIOGRAPHY
Previously at UK satellite broadcaster BSkyB, Crossplatform CEO NICK BROWN launched the now ubiquitous red button to a nationwide TV audience. The company is a specialist in Augmented Reality, together with a portfolio of other technolo-gies including multiplatform applications, iPhone apps and IPTV. Contact: www.crossplatform.tv.