The Importance of AV in Today's Venues:

Viewpoints from TEA

Whether created for education, entertainment, business, trade, retail or worship, AV is fundamental to the design and function of today's venues and visitor attractions – whose audiences are ever more tech-savvy. We asked five leaders of TEA to comment on the role of AV and how its widening range of applications are affecting conceptual design, technical design, installation procedures and the way creative teams work together.

Using Media to Engage

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We're living in a new time. We've now passed what was ubiquitously known as the "Experience Economy" and we've entered into what I like to call the "Content Economy." As websites like YouTube and MySpace multiply and new creative software programs proliferate, fostering the emergence of the next Moby or Beck (Apple's GarageBand), people expect content to manifest itself in a myriad of ways – whether professional or user-generated.

Battle Stations 21 uses AV and other tools to simulate a variety of challenges for Navy basic training.

Venues must respond if for no other reason than to compete. More importantly, media should be used to engage. Whether it's for advertising, information delivery, entertainment presentations or even wayfinding, AV and media are being used in new and exciting ways as a means to engage visitors worldwide.

It seems most of the "signage" in airports and casinos consists of plasma displays. "Hologlass" is everywhere in store windows and trade show booths. Even formerly bleeding edge technologies such as Reactrix and Gesturetek can be seen in malls, toy stores and plate glass windows from Michigan Avenue to Miami Beach.

Competition for attention is key. The once-unique flat panel display stuns no more – primarily because the consumer has a better model at home. Designers, AV consultants and media producers are coming up with increasingly sophisticated, clever and mind-boggling ways to create compelling AV presentations, displays, art installations and informational signage.

Take the video menus at newer McDonald's. No more does a shift lead have to rotate out the breakfast menu for lunch at 10:59. It's done automatically from a server in the manager's office. Take the seemingly miles-long video signage at the United Terminal check-in at Chicago O'Hare. Instantly updateable, animated and visually interesting, these deceptively "simple" information displays are state-of-the-art AV machines delivering content in advanced ways that engage.

Then there are things like Arcstream AV's motor-controlled plasma screens, allowing programmers and media wonks the ability to make a set of flat panel screens physically dance in sync with media designed to work with the physical movement of the screens. Technology allows AV to be used in new ways, but creativity is still the way in which those new ways are dreamed up. Designers, creative directors and media creators need to embrace the latest developments in AV technology - not only to stay ahead of the curve but to be able to harness that knowledge to create new and compelling means to storytell, engage and compete with those dudes in lab coats that put the Mentos in the Diet Coke.

The Guest Experience

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The importance of using audio and visual components in today's theme park and museum venues is really dictated by the expectations of the visitors or guests. Guests want to be involved, feel emotion, be engaged in activities and walk away with an experience they cannot get anywhere else. Obviously, audio/visual techniques play a significant role in providing just such an experience.

Once we have established a venue's story line, we begin to assess the potential technologies to tell the story. That is where the real joy comes for us. We can truly expand our brainstorming sessions to incorporate lots of technological dreams or options. Our goal is to find a way to successfully support the story with remarkable audio/visual techniques in a truly memorable way for the guests.

During the design process we outline each portion of an attraction experience and once a qualified systems integrator is selected, we begin our collaboration. We ask the systems integrator to review and challenge our initial ideas regarding potential technologies. We look at ways to involve all of the senses. We work together to develop effective and intriguing storytelling techniques. Perhaps as importantly, we look at the technology from the client's viewpoint in terms of updating capabilities and ongoing maintenance.

Constant and clear communication helps us bring our skills together. Phone conferences, video conferences, emails, faxes and even a customized client web site keep us all in the loop. This also helps resolve evolving revisions and modifications as the installation comes closer to reality. Even after the installation is complete, we like to keep in touch with our integrators and share any feedback we receive from the client.

Finally, without the guidance of the systems integrators, it is impossible for our firm to keep track of the latest, greatest proven technological advances. We need the collaboration with the systems integrators to assure that we are constantly providing our clients, and their guests, a product that consistently exceeds their expectations.

Vulcania's AV Renewal

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Deep in the Auvergne region of South East France lies an area dramatically surrounded by the cones of many extinct volcanoes. Championed by Valéry Giscard d'Estaing, a major visitor attraction was proposed to lift the local tourism industry.

Vulcania, dedicated to the science of volcanoes, was opened to great fanfare in 2002; Over 800,000 visited in the first year, encouraged by the huge publicity surrounding the opening. However, Vulcania initially suffered - like so many publicly funded attractions - by being built as an architectural statement, with little budget remaining for what the visitors actually come inside to see.

Numbers declined quickly in subsequent years and it became clear the attraction content was too limited and too scientific for the average visitor. Something new was required - a bit of fun if you please!

The brief for the proposed new attraction was to raise the level of fun in Vulcania while maintaining standards of scientific integrity – the familiar conflict between academics and hedonists. The Paris design agency Harmatan were successful in their proposal for a 'Magma Explorer' vehicle – a crew-carrying capsule (with 24 visitors on board, naturally) which enters the magma of an active volcano. While in the magma, as luck would have it, the volcano erupts throwing the capsule and those on board high into the air. By "chance," the capsule has a parachute system on board which survives the heat, allowing a controlled descent to Earth.

To deliver this challenging experience, which opened early in 2007, a simulator platform on which visitors stand, with video screens on all four walls and the ceiling, was the chosen medium. The standing platform (by Rexroth) allows the necessarily rapid loading and unloading to maintain capacity and creates a heightened sense of insecurity for visitors, who hang on for all they are worth through the vigorous show cycle. Electrosonic supplied the five video projection systems and servers. Nick Farmer provided ride consultancy services.

The Magma Explorer concept was developed with AV right at the heart of the experience from the very start. In truth, the journey is not true science and is quite impossible, but the imaginary trip is a lot of fun and full of real facts too. Only AV could deliver this very successful experience, and the AV and simulator teams were brought together from day one. We discovered that quite a few scientists were also hedonists!

Visualizing the Future

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We have been in this industry 30 years (each) and have seen many changes of attitude towards our trade. What we do (technical integration) has sometimes been titled "infrastructure," sometimes called a "cost of doing business," - a pretty picture but until recently we have never been given our fair share of credit for the special skill set we bring to a project. We hold the keys to bringing a project to life, to animating the inanimate, to teaching, to evoking emotions, and, most importantly… to connecting the project to the guest.

Each project we work on has an agenda, and no project I know has had a more important agenda then our recent work for the US Navy - a 12-hour training experience simulating a ship located 1,000 miles from any ocean - referred to as the unluckiest ship in the Navy, but more formally known as the USS Trayer, or Battle Stations 21 (BST-21).

Although it uses much of the technology and skills we associate with high-tech entertainment, the goal of this venue was not to entertain, but rather to seriously train people in property- and life- saving scenarios, within a virtual environment. All of the work we have collectively done over the past three decades was put to test in this venue: every ride, show, and gag that we have done seemed to have been in preparation for this project.

The irony of the situation came to light during an initial session with many of the top brass at the Navy Base. The question of reliable control was asked. Our response was to point out that first, the military developed the basic control systems; then, our industry perfected and made them cost-effective, and now, it was time for the Navy to reap the benefits of technology transfer in the reverse direction.

This project is exemplary of the importance of AV in today's world. Briefly, BST-21 is the culminating training experience in a recruit's eight weeks of basic training. The recruit earns their "Cap" and ability to move onto their first assignment only after completing the BST-21 training. The virtual experience consists of an 12-hour, simulated ride on the USS Trayer, where scenarios like the IED explosion of the USS Cole are recreated to train recruits how to react. (In fact, extensive training was credited for saving both the ship and many sailors' lives on the real-life USS Cole.)

So how do you recreate 20 different scenarios and four copies of each, all operating asynchronously 360 nights a year, with a reliability factor of over 95% - and the ability to recover from a complete loss of all data within six hours? If that is not hard enough, how do you communicate the system design intent in a language and written format that is unlike anything you have ever been trained to do? The last sentence refers to the Navy's form of documentation and process, which were not written with the entertainment industry's unique creative methodology in mind. Certainly, we faced a challenge - and one that we believe the team successfully met.

At the end of the day, the solution lies in the process we integrators must go through to be successful. It begins with the big picture: the goals of the project. We like to take a conceptual leap forward in time, and then, looking "back," ask the team, "What did we create?" "Were we successful?"

Obviously, a project of this scope requires all of the digital tools we have access to, the audio and video servers, the digital audio processing, the signal routing, the system networking and, of course, the show control. This last item is most challenging, as we now find it more problematic that everything is programmable and therefore requires a programmer to perform the most basic function we used to take for granted. In some ways our boxes are more intelligent and in others they are stupid, an interesting paradox in the digital world.

To successfully develop this kind of complex interdependent yet independent system the integrator must look into the future and visualize how the AV system will interface and behave in such an environment. With no room for failure, the integrator must perform an in-depth "what if…" exercise to make sure that the stuff you did not know you did not know does not become the show-stopper in the eleventh hour. The role of the integrator has moved to center stage - seeing as how our equipment has become the last word in the chain of expression. We must not, therefore, be formulaic in our approach. We must and do look for the unique ways our skills and experience can make a project come to life. TEA

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