Inviting Visitors to Engage and Participate

3

KEY TRENDS IN MUSEUM EXHIBIT DESIGN

Video wall system at the National Geographic Museum in Washington D.C.

PLANAR®

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Introduction

Museums exist to expand our knowledge, stimulate our senses, expose us to new experiences, and engage our participation, as we explore our shared history and the natural world. In recent years, new technologies have expanded the dimensions and capabilities of museum displays, turning visitors from passive observers to actively engaged participants. Wall-sized displays, interactive touch navigation, and advances in image precision invite closer viewing and deeper involvement with the content. Technology is inspiring museums to supplement static display techniques with dynamic, responsive, participatory museum environments.

The combination of a touch table and an LCD video wall system at the National Archives and Records Administration serves as a powerful communication tool.

Three Notable Trends in Museum Displays

Larger video displays and interactive flat screens have become fixtures and communication tools in many modern-day museums. From the lobby onward, the descriptive power of video imagery sets the tone for a museum tour and provides an effective way to control the atmosphere, the nature of the presentation, and the full sensory experiences of visitors. The key notable trends that are shaping visitor experiences include:

TREND #1

Large video walls that introduce exhibits and set visitor expectations

TREND #2

Increasing use of interactive touch screens to encourage visitor engagement with exhibits

TREND #3

Greater use of video installations as architectural elements to create visually rich visitor experiences

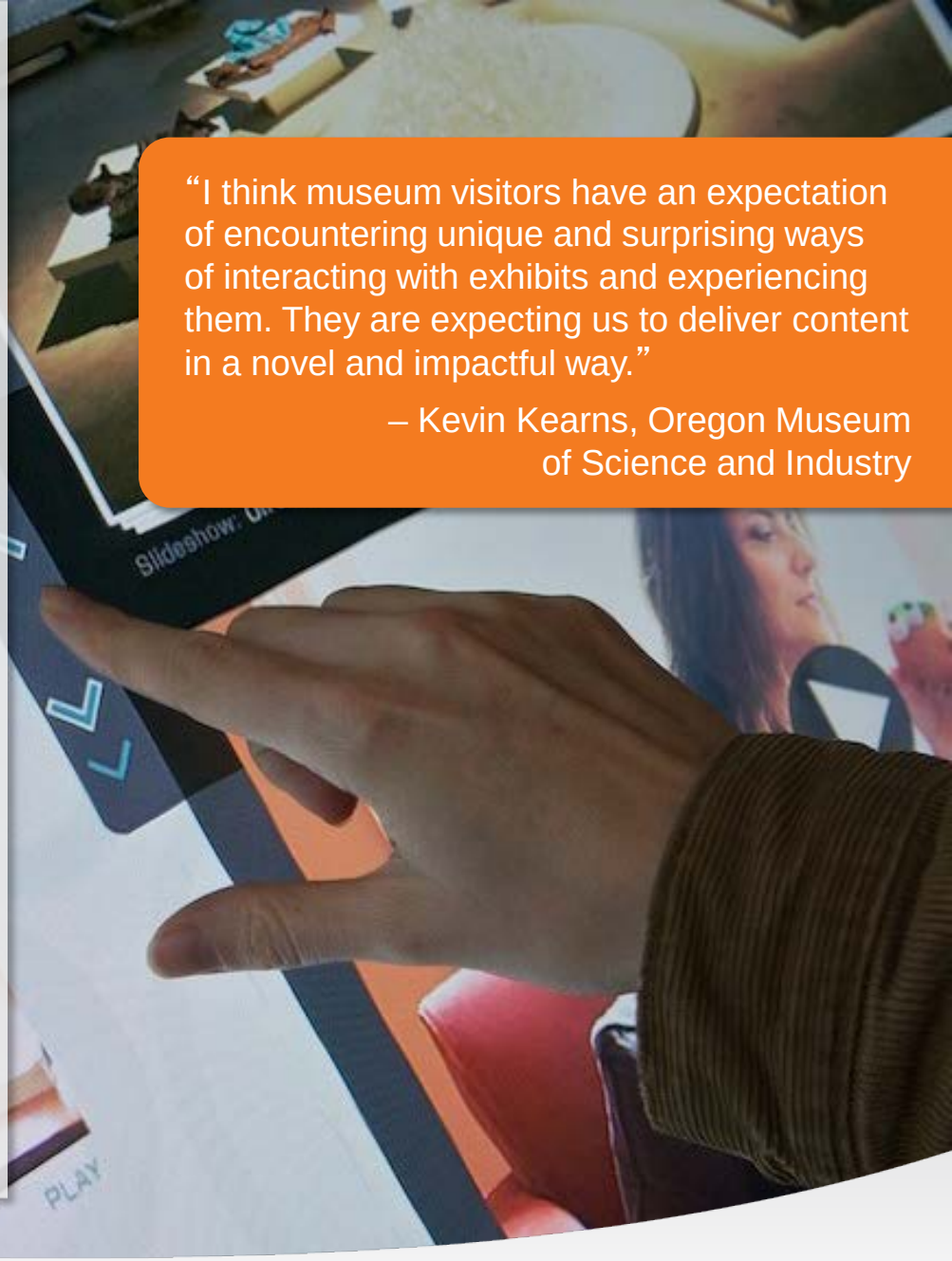
Ultimately, the goal is to attract the visitor, provide a memorable experience, and encourage return visits. This eBook explores the design trends that are influencing museum displays around the world and affecting the ways in which information is presented.

A video wall in the Portland Art Museum greets visitors in the foyer and also serves as a donor recognition wall.

Fostering Deeper Levels of Museum Participation

Today, it takes a lot of effort to draw prospective museum goers away from their on-demand content and the convenient screens of their computers, televisions, tablets, and smartphones and convince them to attend a live exhibit in person. Faced with this challenge, museum planners and designers have been tasked with not only providing exceptional experiences to visitors, but also finding ways to inspire and amaze them.

To do this generally requires using every technique and technology available to excite, awaken, stimulate, surprise, and entertain visitors—beginning the moment they enter the lobby. Advanced display technologies, working alongside other media and methods, have proven worthy of the challenge, bringing dynamic color, light, full immersion, and magic to museum exhibits.



"I think museum visitors have an expectation of encountering unique and surprising ways of interacting with exhibits and experiencing them. They are expecting us to deliver content in a novel and impactful way."

– Kevin Kearns, Oregon Museum of Science and Industry

Converging Technologies and Museum Interactivity

Intelligent, networked objects communicating—the basis of the Internet of Things—suggests that the museum of the future may be able to respond to you personally, changing display content or offering you directions based on a number of factors. As reported in Trendswatch[1] 2013, published by the American Alliance of Museums, the implications are intriguing:

Museums, with their collections and galleries, know something about objects and spaces. But what happens when the objects can "talk" to each other and the spaces know who you are and what you're doing? The "Internet of Things" and the development of location- and context-aware technologies are pointing the way to a new order of complex interactions that will erase the gap between networked digital devices and the physical world of objects and human beings. Soon your mobile smart device will tell you not just "you are two blocks from the art museum" but "a painting you may like is in the next gallery, and a reproduction is available in the museum store," while automatically downloading the catalogue record. Personalized, proactive and responsive networks could give museum "interactivity" a whole new meaning.

[1] http://aam-us.org/docs/center-for-the-future-of-museums/trendswatch2013.pdf

Digital Storytelling: Creating Rich, Visual Experiences

Despite the multitude of available technologies for creating museum displays, visual presentations incorporating large-scale flat screens, video walls, and touch are fundamental, cost-effective, and accessible. These factors account for their growing presence in leading museums in metropolitan areas. Multisensory experiences, context-awareness, greater social media interaction, and similar technologies are developing quickly for museum use, but advanced display technologies, architectural video walls, and touch solutions are here today and ready for creating interactive experiences and relating engaging stories.

Video wall showcases traditional artwork dynamically in this New York Historical Society Museum exhibit.

"With flat screen displays and touch technologies, all of a sudden visitor interactivity becomes easy."

– Bob Haroutunian
PPI Consulting

TREND #1

Creating Tone and Atmosphere with Video Walls

Advanced displays that shift between static and dynamic images can set the tone and atmosphere within a gallery room in the blink of an eye, offering unlimited display possibilities. The museum designer's vision can be shaped, refined, and fulfilled by the choice of imagery, color, and movement. The flexibility of this mode of communication also accommodates another current trend in museum design: sustainability. Instead of single-purpose painted or screened display components, video walls can be quickly repurposed for each successive exhibit simply by changing the digital content directed to them.

An interactive map at the entrance to the Woody Guthrie Center in Tulsa, Oklahoma, sets the tone for visitors.

Creating Captivating Video Wall Experiences

Gaining someone's attention in our media-saturated culture isn't easy and it definitely takes an imaginative approach, especially in an area filled with many different tourist attractions. To draw the attention of Hollywood Boulevard passersby, the Guiness World of Records Museum created a video wall that turns people standing or walking nearby into virtual avatars onscreen, mimicking their motions and making them participants, part of the interactive display. The possibilities for expression that video walls offer creators are unprecedented, and museums are increasingly finding ways to integrate this mode of expression into their exhibit halls.

When you walk by the Guiness Museum on Hollywood Boulevard, you just might meet your avatar looking back at you.

TREND #2

Enabling Tactile Engagement with Interactive Touch Screens

Interactive touch has become commonplace, largely due to smartphone and tablet popularity. Taking this concept to a larger scale, today's 4K displays make it possible to put fine text on displays so that they can be readable at arm's length (something that you couldn't accomplish previously with a video exhibit). Video touch screens also have a natural appeal to younger museum visitors. Similarly, games have proven to be a popular form of engagement and a way to draw visitors into deeper involvement with a presentation.

Visitors are drawn to experience science and technology more fully through Brainstorm, interactive exhibits hosted at the Oregon Museum of Science and Industry.

Navigating by Touch

Interactive touch in the form of touch table technology has become a popular means for museums to convey information and present educational material. This approach is an integral part of the displays in the National Archives and Records Administration Museum. Visitors can access records by using a variety of touch gestures—including swipe and fingertip selection—on the touch table. Selections are then displayed on larger wall-mounted panels nearby.

Other museums that have adopted this technology include the Lyndon Baines Johnson Presidential Library in Austin, Texas, the George W. Bush Presidential Center in Dallas, Texas, and the Peter J. McGovern Museum Little League Museum in Williamsport, Pennsylvania.

Touch tables control the display of records at the National Archives and Records Administration museum in Washington, DC, making it easier for children and adults to explore the museum holdings.

Traveling Exhibit Possibilities for Touch

The compact nature of touch-enabled flat screens makes them a useful element in traveling exhibits. Kirby Jones of OMSI related how this technology can help tell a story in a small amount of space.

"We did an exhibit recently that featured an artifact wall of about 25 different prosthetics and assisted technologies, each with a plaque explaining what it was. We used a Planar touch screen so a visitor could choose an artifact and select a video or slide show about how the prosthetic was made and who it was made for. This gives us the ability to expand the message and better deliver the educational goals."

– Kirby Jones, OMSI

TREND #3

Adding Interest to Architectural Installations

The latest generation of flat-screen and video wall displays offer lightweight, adaptable structures suitable for creating architectural elements for mounting or movable barriers. Video walls present opportunities for impressive content display. They can attract a visitor's attention, enhance the architecture of the space, and create canvases for beautiful graphics, artwork, photography, video, and other museum assets.

Striking imagery has been a cornerstone of National Geographic's presentation of the natural world. Video wall displays in their Washington D.C. museum emphasize visual splendor in larger-than-life displays.

Acknowledging Museum Support

Many museums are using flat-screen donor walls to provide recognition and thanks to museum supporters and sustainers. Adding dynamic elements to a donor wall heightens the visibility of donor contributions and can also focus attention on campaigns and capital-raising projects.

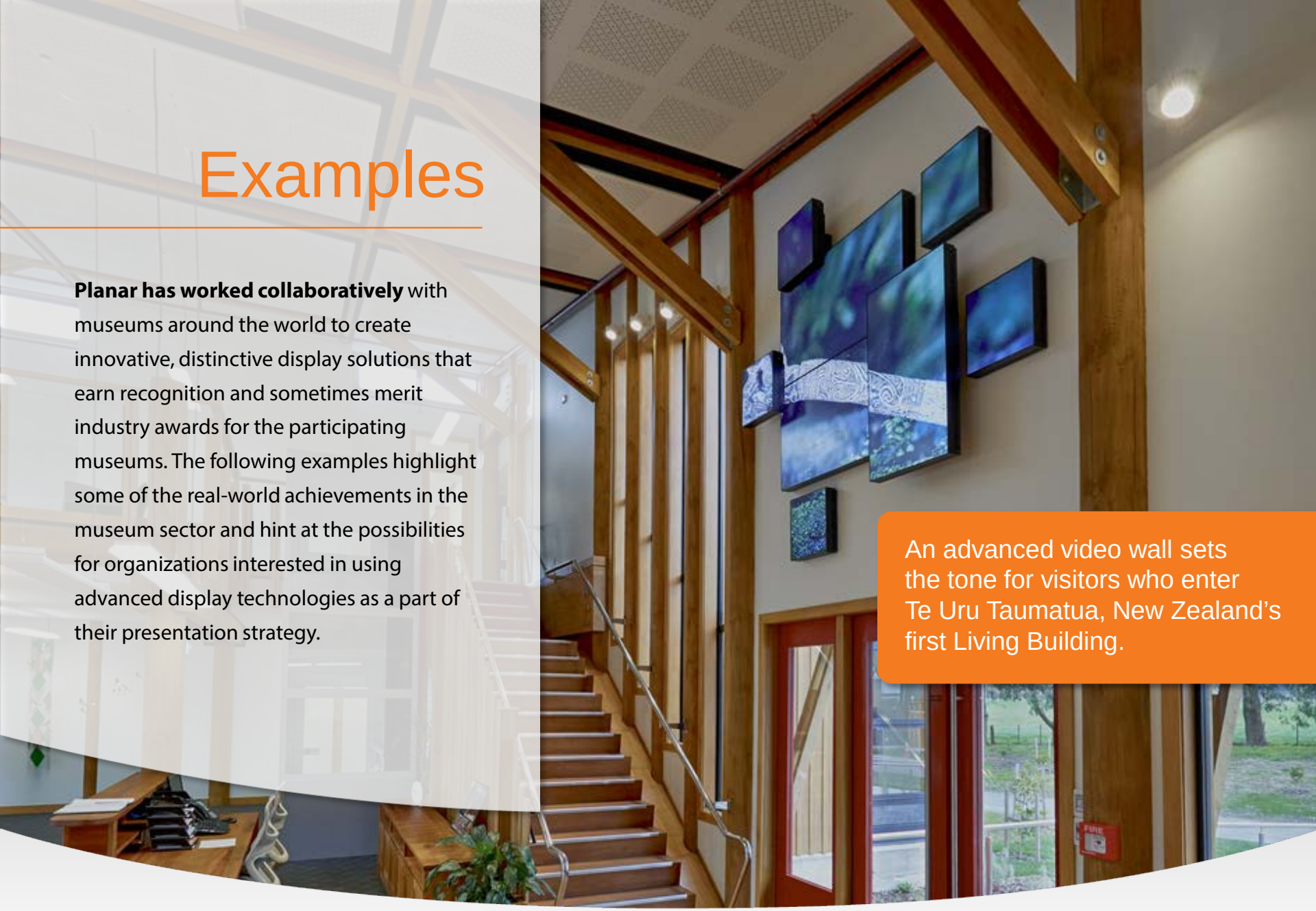
An addition to the lobby in the Oregon Museum of Science and Industry, this donor wall draws attention to museum supporters and current campaigns.

"These cutting edge displays allow us to share beautiful life-like images that stir emotion. Whether these images tell the story of our mission to potential donors or are in the form of high-energy promotional video in our retail store, these displays help us motivate people to take action in ways that support the mission of the museum."

– Mark Patel
President of Marketing and Retail,
OMSI

Examples

Planar has worked collaboratively with museums around the world to create innovative, distinctive display solutions that earn recognition and sometimes merit industry awards for the participating museums. The following examples highlight some of the real-world achievements in the museum sector and hint at the possibilities for organizations interested in using advanced display technologies as a part of their presentation strategy.



An advanced video wall sets the tone for visitors who enter Te Uru Taumatua, New Zealand's first Living Building.

National Archives and Records Administration Museum

As the official storage repository for the historical records of the United States, NARA also makes vital documents accessible to visitors through its museum, which tells the story of how rights and freedoms have evolved in this country over many generations. To provide direct, convenient access to the voluminous holdings, NARA employs a touch table integrated with a Planar® Mosaic™ Architectural Video Wall. This approach makes it possible for more people to view the documents than would be the case for a physical exhibit. Touch-table selections are displayed in dramatic context on the large-scale displays.

Navigation through the collection content is accomplished using gestures familiar to tablet or smartphone users, including touch, swipe, and zoom. Planar worked in collaboration with Design and Production, Inc. (D&P) of Lorton, Virginia, to design and deploy the interactivity of the system. The pleasing architectural arrangement of vertically staggered Planar Mosaic displays on the wall offers visual appeal and interest to the exhibit.

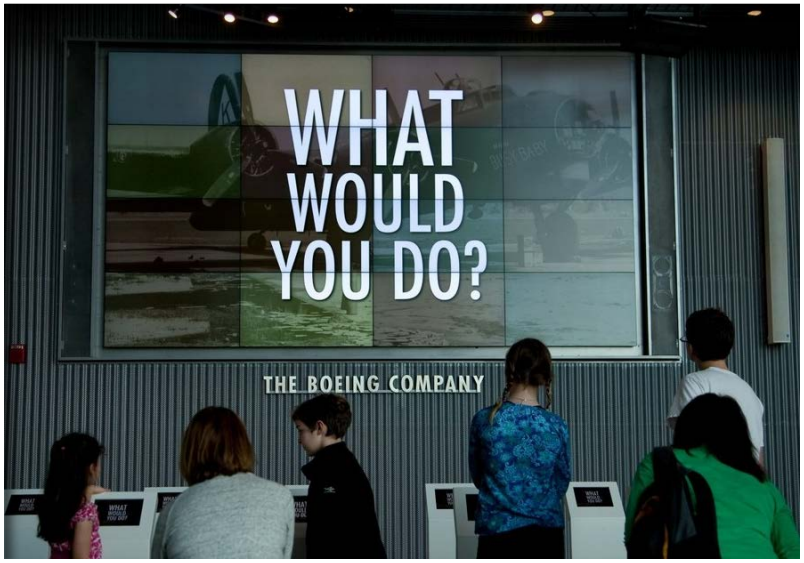
"Clarity Matrix and Planar Mosaic are robust, commercial-grade displays that can function reliably 365 days a year and stand the test of use by the million or so visitors that will come through the gallery."

– Daniel Falk
Exhibits Project Manager, NARA

National WWII Museum

Encouraging user engagement is one of the key objectives in the National WWII Museum, and the challenge is met with an interactive display based on a Planar® Clarity™ Matrix LCD Video Wall System. Visitors respond to real-world scenarios, answering the question What Would You Do?, and feedback based on these responses appears on the video wall with near-4K resolution images.

The exhibit features additional video wall presentations, including a film specifically produced for the museum, *Arsenal of Democracy*, presented on a large-scale array of 64 Clarity Matrix 46-inch panels. The immediacy of the large-scale imagery and the interactivity built into the exhibits provide an effective, immersive way to tell the story of World War II to this and future generations, educating and involving the audience intimately in the unfolding events.



"The Clarity Matrix video walls are a stunning visual component to the US Freedom Pavilion. The detail in the imagery they depict is remarkable."

–Jonathan Foucheaux
Partner, Solomon Group

The Kentucky Derby Museum

Developed in conjunction with Design and Production, Inc. (D&P) of Lorton, Virginia, Planar displays featured in the Kentucky Derby Museum put visitors in the midst of the race action. One exhibit simulates the excitement of being astride a racehorse; visitors on the replica horses view videos of the race progressing all around them and get a sense of the tumult and energy on the racetrack.

Another video wall, nearly 250 square feet in size, is composed of 16 Clarity™ Matrix LCD displays from Planar, greeting arriving visitors with a brace of galloping horses thundering out of the gate, racing directly toward them. Interactive exhibits also share different aspects of the race culture, providing stories from winning jockeys, the birth of a foal, the thrill of the winner's circle, and other moments presented in vivid, memorable fashion.

Visitors walking into this Louisville, Kentucky, museum are drawn into the action by a video wall of galloping horses.

David Zwirner Gallery at the Armory Show

Many forward-looking artists embrace technology and some, including Diana Thater, have turned to advanced display technology as a canvas for their work. A set of three of Thater's panoramic landscape paintings, titled *Day and Night*, appeared in the 2013 Armory Show for the David Zwirner Gallery, composed on three Planar video walls in unique configurations. Occupying corners of the gallery, highlighting the architectural flexibility of this approach to displays, one painting wrapped around a corner concavely; another, convexly. The heart of the installation was based on 46-inch panels in a Planar Clarity™ Matrix LCD Video Wall System, with design assistance from gallerist David Zwirner.

"Advanced video walls like Clarity Matrix do a wonderful job of accentuating the many aspects of a painting and really draw the viewer in."

–Diana Thater, Artist

Summary

Attract, Engage, Provide Value

One prevailing theme that emerged from interviews and research on museum displays was the importance of drawing visitors more deeply into exhibition content and providing relevant context for the information that is presented. The use of interactive touch displays and large-scale video displays offers a very effective way to do this. Filling an entire wall with moving video content is a powerful attractor and motivator to explore the story being told more deeply, especially when complemented by audio and physical exhibits that spark the imagination of visitors.

The National WWII Museum complements real-world artifacts with video walls for an immersive visitor experience.

Additional Information

Planar (NASDAQ: PLNR) is a global leader in digital display technology providing premier solutions for the world's most demanding environments. Retailers, educational institutions, government agencies, businesses, utilities and energy firms, and home theater enthusiasts all depend on Planar to provide superior performance when image experience is of the highest importance.

Planar solutions are used by the world's leading organizations in applications ranging from digital signage to simulation and from interactive kiosks to large-scale data visualization.

Founded in 1983, Planar is headquartered in Oregon, US, with offices worldwide.

Please visit us at www.planar.com where you can learn more about Planar's innovative video solutions.

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