Enhanced engagement: capturing attention with interactive video walls

In today's highly visual and digital world, large-format interactive video walls are an effective and persuasive educational, promotional and informational platform in a variety of settings. Education facilities, corporations, broadcast companies, entertainment venues and many more organizations are benefiting from the enhanced engagement offered by interactive video walls.

When deployed in such places as retail spaces, stadiums, museums, universities and corporate environments, interactive video walls increase audience dwell time and interest, create stronger brand loyalty, provide greater satisfaction for the audience and result in higher messaging and brand awareness.

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Technology overview

A typical interactive video wall system is made up of the following components:

Display technology: Multiple LCD flat panels or rear-projection DLP® technology-based LED display cubes tiled into near seamless displays

Interactive technology: Touch, object and gesture recognition hardware and software powered by intuitive programs used to create the interactive digital content for the display

Display technology

Regardless of the display technology chosen, the following criteria should be considered when designing an interactive video wall.

Bezel width

A narrow bezel-to-bezel width provides a near seamless display when multiple panels or display cubes are arranged into a video wall, resulting in a more aesthetically pleasing display, void of any discernible gaps between screens

A narrow bezel-to-bezel width results in a more accurate and responsive touch interactive experience because the gap between screens is minimal

Image quality

The display technology used in interactive video walls must be sufficiently high resolution so that the content is clear and sharp at any angle and distance, especially close-up

A high-brightness visual display that produces vibrant images with rich colors and deep contrast also helps attract the attention of the audience, encouraging engagement with the display

Durability

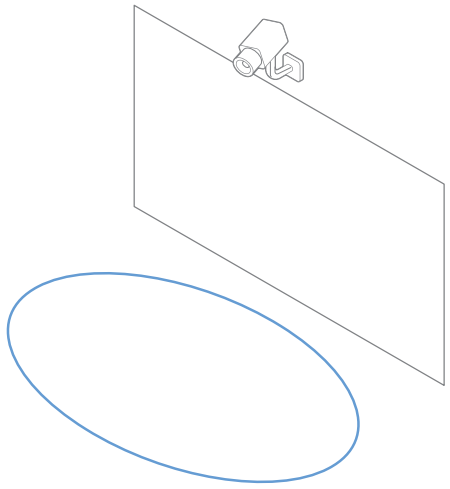
Interactive video walls must be designed to withstand continuous contact on a regular, long-term basis

Options such as optically bonded, scratch-resistant glass increase flat panel durability by protecting the LCD screen. Fingerprints left on flat panels that have a protective layer of bonded glass are easily removed with standard glass cleaner

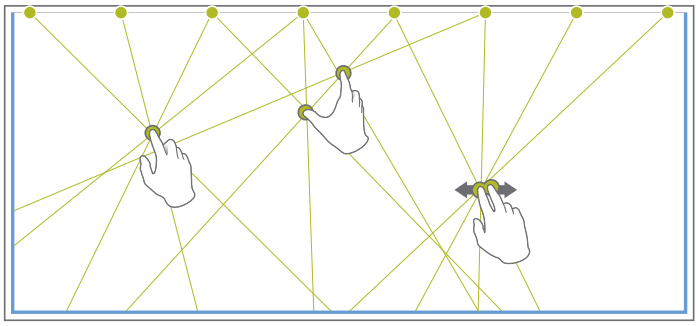
Rear-projection DLP technology-based LED display cubes typically have robust, easy-to-clean acrylic screens that do not require any additional protection. Their matte finish results in a glare-free display which is particularly effective in high ambient light environments

Interactive technologies

Interactivity can be added to a large-format video wall by installing purpose-built interactivity hardware that is capable of recognizing touches (one or more fingers), objects (such as a stylus or paint brush) or gestures (waving or jumping). For video walls where two or more people will be interacting with the display, the interactive technology should be able to properly recognize multiple, simultaneous touch points. The two most common interactive technologies are imager-based and sensor-based.



▲ Imager-based interactive technology relies on one or more cameras to detect user movement and gestures.



▲ This example of a sensor-based system features sensors along the top (green circles) and infrared LEDs along sides and bottom (blue strips)that allow for precise and accurate detection of touch or object as it enters, hovers within or transitions out of a sensor's field of view.

Imager-based

Employs one or more cameras located behind or in the corners of the display technology, or directed towards the user
Ideal for gesture-based interactivity or applications that require only 1-4 touch points
Proper alignment of cameras is critical, increasing setup time and complicating maintenance
Works best in low light as technology is prone to failure due to over-saturation in high ambient light environments

Sensor-based

Employs a series of sensors along 1 or 2 edges of the display
Ideal for applications where 6 or more touch points are required
Can support larger displays and non-standard aspect ratios
Ideal for operation in high-ambient light environments since sensors are not affected by over-saturation

How interactive video walls engage audiences

The greatest benefit of an interactive video wall is how it increases the audience's engagement with the information being presented. By itself, a large-scale, visually stunning video wall in any environment is very effective in capturing attention. With the addition of interactivity, the video wall draws in audiences and encourages them to stop and spend time at the display.

Place control in the hands of the audience

Audiences are not simply consuming information, they are in control of what they choose to consume. It is possible for organizations to gather valuable feedback by tracking what types of information audiences are seeking

Allowing the audience to explore the information or message through touch, leads to a more valuable, entertaining and rewarding experience

Higher brand awareness and stronger brand loyalty

By increasing the dwell time at the display, the audience engages with the brand messaging, increasing its effectiveness

By creating these compelling interactive experiences, audiences will more likely return to the display to repeat the experience

Greater satisfaction

By controlling the experience through interactivity, audiences have a greater sense of independence and personal satisfaction

When used as a self-serve sales medium in a retail setting, customers are able to avoid the traditional sales pitch, resulting in a more enjoyable shopping experience

Enhanced educational opportunities

When employed in a teaching or learning environment, such as a university, museum or art gallery, interactive video walls enhance the learning experience.

Interactive video walls capture attention by delivering dynamic content, resulting in improved focus and concentration

Users experience a hands-on approach to learning, which encourages collaboration and participation resulting in a more rewarding and fruitful experience

An interactive learning environment delivers a far deeper and memorable experience, allowing for greater recall and understanding of the material

By providing new and innovative ways to interact with exhibited material, the video wall enhances the museum or gallery visitor experience

The interactive platform adds value to the learning experience, by allowing instant access to supplemental information related to the exhibit or gallery

Realize the possibilities of interactivity

In today's visually-rich digital environments, competing for the attention of audiences and customers is a challenging prospect. With interactive video walls, organizations are able to effectively draw in audiences and hold their attention for longer periods of time. By providing an intuitive platform that empowers the audience and allows them to take control of the information they consume, audiences are more likely to stop and take the time to interact with the content and enjoy the digital experience. Furthermore, when placed in educational environments, these video walls enhance and improve the learning experience. With advances in display and interactive technology, designing and deploying impactful, large-format interactive video walls is now a reality.

Learn how Christie can help you unleash the full potential of your video wall, visit: christiedigital.com/engaging

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