Five Ways Retailers Can Benefit From Audiovisual Technologies
Retail stores face a never-ending series of challenges today. Online merchants with next-day delivery have cut into brick-and-mortar store sales. Traditional shopping malls are falling out of favor as merchants look to “town square” layouts to bring back customers. And those customers now have instant access to online resources to find the best price, locate a store that has the desired product(s), and compare offerings from multiple brands.

Retailers have tried numerous ways over the years to draw shoppers in the front door, and once inside, hold their attention long enough to make a sale — planned or impulsive. This can be quite the challenge as competitors are also implementing the same tricks — big, bright signs, music, lighting effects, bold color schemes, and of course, audiovisual (AV) installations of every kind.

The “video” part of AV is what commands the most interest in retail. Problem is, customers are so used to seeing video screens everywhere that the impact of a conventional television or monitor in a store is diluted. Even multiple displays are a visual distraction to the average shopper after a few minutes, just as the loud pop music heard in trendy clothing stores becomes background noise over time.

Retailers also have cost considerations, primarily square footage. They’ve paid a lot of money to lease that space and want to use every possible inch to showcase their wares. Consequently, retailers are reluctant to give up any floor space for a video installation if they can’t be certain that customers will pay attention to it. On the other hand, AV solutions that don’t require as much floor space (i.e., video screens flown from the ceiling or mounted on walls, or images projected on super-thin glass walls) are of great interest.

So are interactive AV solutions. It’s one thing to expect a customer to watch a short video about a product, but it is an entirely different experience when the customer can interact with video content. Customers can learn how to prepare a meal with a kitchen appliance, model virtual clothes using a mirrored display screen, take a virtual ride in a new car, and personalize the settings for adjustable furniture and bedding.

In this paper, we’ll look at five ways that retailers can put the newest generation of audiovisual technology to work and better engage customers.
Case Study: LAX

The Lotte Tower
One of the more exciting developments in display technology uses flexible organic light-emitting diode (OLED) panels. These panels can survive extreme bending and flexing and are also extremely thin. Yet, they produce bright images with high dynamic range and super-saturated colors. In some installations, flexible OLEDs are replacing large, static display on walls, pillars, and ceilings to entice people to enter a store, food court, or an attraction.

The Lotte Tower in Seoul, South Korea, is the fifth-tallest in the world at 1,823 feet and features a breathtaking view from the observatory at 1,633 feet. The building is shaped like a tapered chisel and parts of the observatory floor are actually large LCD panels with thick glass layers on top and bottom. When switched on, the translucent surface becomes transparent and visitors standing on these tiles can see all the way down to street level (a disconcerting sight!).

Entering the building and making your way to the elevators can be just as exciting as the view from the top. At various locations along the way, visitors pass through an OLED tunnel that displays colorful light shows, hemispheric panoramas of forests, and star fields. In another location, the floor is made up of OLEDs, showing a similar sequence of videos, while the ceiling over the walkway to the elevator bank is similarly configured. The effect of all these screens is to convey a feeling of constant forward motion even though visitors are standing still.

Fine-pitch inorganic LED walls are also being constructed as architectural features, shaped as circles, triangles, trapezoids, and three-dimensional shapes. The coarse, pixelated look of older LED walls is now a thing of the past – with newer walls, ultra-high definition video can appear as reality. Both OLED and LED displays have been built into window and door frames to create life-like depictions of scenery.
Case Study: LAX

Nike SoHo
Industry trade magazines have identified a trend in retailing that goes hand-in-hand with AV. It’s called “shoppertainment,” and combines digital signage, mirrored displays, and mobile technologies that interact with customers to make shopping a fun, enjoyable experience rather than a chore. Pulling a pair of shoes out of a box to try them on is one thing. Jogging around the store is another. But what if you could run in a virtual park in those shoes, or play in a virtual soccer match?

Advances in display technology and virtual reality (not to mention video game software and character rendering) continue to blur the lines between reality and virtual worlds. Today, it’s easy to create larger-than-life video screens with some three-dimensional (spatial) sound effects, even in small spaces. So why not combine retailing with what amounts to a theme park experience?

That’s precisely what happened at Nike’s newest retail innovation, a 55,000-square-foot store in downtown New York. Nike SoHo includes a Nike+ Running Trial Zone where consumers can test shoes on treadmills, a Nike+ Soccer Trial Zone that features a turf field for testing soccer shoes, and a half-court Nike+ Basketball Trial Zone where customers can test shoes and perform custom drills under the guidance of certified store athletes.

Multiple video wall displays (some with touchscreens) are integrated throughout the store to “create a seamless link between Nike’s digital and physical platforms.” The videowall in the Nike+ Basketball Trial Zone creates a unique digital interactive experience by surrounding consumers with high-definition images of iconic New York basketball courts. At the Nike+ Running Trial Zone, video walls let consumers experience a stretch of Central Park or the West Side Highway as they test shoes on treadmills.
Case Study: LAX

Sony Square
Some “shoppertainment” experiences rival those of an IMAX theater. These virtual spaces can be used to show off the capabilities of a product, most notably audio and video gear. The space is optimized for ambient light and acoustics (a far cry from watching video on a smartphone), particularly when many channels of so-called “3D sound” are used. This technique surrounds the viewer with music and sound effects that appear to have a particular spot in space – one that the customer can almost reach out and touch.

Sony Square, a technology showcase in New York City, features an enormous fine-pitch, 30-foot videowall that uses tiny light-emitting diodes to create seamless images with 8K resolution. At normal viewing distances, this wall completely fills the viewer’s field of view whether they are sitting or standing. The high-resolution video and photos on the screen are then complemented by an enormous array of speakers that create 3D sound.

By using LED technology, this high-res wall can also reproduce video with high dynamic range and a much wider pallet of colors than usually seen on conventional televisions and monitors. Combine ultra-high-resolution HDR video and spatial sound, and you may feel as if you are sitting among musicians in an orchestra, in the stands at a football game, or in a car at a racetrack. Visitors can listen to new music or view video clips from movies and games. Other areas of the Square provide hands-on demos of new hardware before they come to market. This model of an “experience” store is becoming quite popular with consumer electronics manufacturers.
Rent the Runway
#4 Use Displays to Model Clothing

Showing models wearing the latest fashions isn’t exactly a new idea – all clothing retailers have used both photographs and video to show off their lines. Now, we have the so-called “gig” economy, where you can rent everything from a ride across town to a private bedroom in someone’s home, saving tens if not hundreds of dollars. Bicycles, flex office space, hybrid cars – it’s now possible to rent just about anything.

It should come as no surprise that customers can rent clothing. Yes, tuxedos and gowns have been rented for years. But what about everyday clothing? Is there actually a market for renting women’s casual and business wear? As it turns out, there is indeed and it’s potentially a very large market. The idea of renting fashions for a period of time appeals to millennials and Gen Ys who are much more conscious of recycling and minimizing waste.

Rent the Runway, a New York City-based retailer, claims to have thousands of styles on hand from over 300 designers. Women can rent an outfit (or outfits) for either four or eight days using one of three optional price packages, receiving and returning the outfits via ground shipments.

The entire process can take place online, with numerous Web videos available showing each item in actual use. There’s even an app to facilitate ordering on the go.

So, where does AV fit into this equation? Despite a spike in online retail sales, a recent survey from Accenture discovered that 82 percent of millennials actually prefer to shop at physical locations. Rent the Runway maintains five retail stores in New York, Chicago, Los Angeles, San Francisco, and Washington, D.C., just for that purpose. The 4,000-square-foot New York store installed a 138-inch 3x3 video wall to greet customers and display video clips that shows their peers — not just models and mannequins — wearing the high-fashion clothing available at Rent the Runway.

The retail floor also features 32-inch touch-screen tandem displays that enable viewing of some 200,000 potential “cloud” wardrobe options, as well as mirrored LCD displays with playful, positive messages for women as they consider potential selections.
Case Study: LAX

Experience IndividualFit®
An increasing number of products for the home now let customers create their own settings that can be saved as files and recalled at the touch of a button. These settings can adjust a combination of lights, room temperature, and sound. The height, tilt, and comfort of a car seat are saved as macros for different drivers. Believe it or not, you can now outfit an intelligent bathroom that will respond to voice commands and recall your preferred settings.

Another market where personalization has taken off is in the bedroom – specifically, high-tech adjustable mattresses that allow tilting and folding and offer a wide range of comfort settings by making the mattress softer or firmer. What’s more, queen- and king-size beds can accommodate two persons with completely independent settings. There are real medical benefits to these adjustments, particularly if a person has back issues, is recovering from joint surgery, or suffers from sleep apnea.

Sleep Number, based in Minnesota, was the first company to offer adjustable mattresses over three decades ago and is now the leader in this technology. Their retail stores feature a variety of mattresses for customers to try out, all of them featuring the company’s SleepIQ technology.

When a couple visits a Sleep Number store, they go through a series of benefit-driven interactive experiences to illustrate the advantages of a Sleep Number mattress.

Sleep Number’s IndividualFit 3D Imaging software lets each person try a bed while watching a digital map that displays their bodies’ pressure points. As the fit adjusts, they can see the pressure points dissipate on large-screen visuals. Previously, these images were shown on a laptop computer, but that proved (understandably) difficult to watch while lying down.

As a result, Sleep Number decided it was best to project the pressure sensor visuals, generated by a Windows 10 laptop, onto a specially-made 95-inch glass screen using a small, bright DLP projector equipped with laser phosphor technology for long life and simple on/off operation. The screen, coated with a special optical film, can be viewed both from the front and back with equal clarity. In some stores, Sleep Number is experimenting with a second screen mounted directly overhead. The company has found that a picture is indeed worth a thousand words when selling customers on the Sleep Number experience.
About AVIXA

AVIXA™ is the Audiovisual and Integrated Experience Association, Presenting Sponsor of the 2018 International Retail Design Conference. AVIXA and its members aim to help retailers create a more successful future through the integration of compelling audiovisual experiences. AVIXA represents the $178 billion global commercial AV industry. It is the producer of InfoComm trade shows around the world and it co-owner of Integrated Systems Europe. Established in 1939, AVIXA has more than 5,400 members, including manufacturers, systems integrators, dealers and distributors, consultants, programmers, live events companies, technology managers, content producers, and multimedia professionals from more than 80 countries. AVIXA members create integrated AV experiences that deliver outcomes for end users. AVIXA is a hub for professional collaboration, information, and community, and the leading resource for AV standards, certification, training, market intelligence and thought leadership. Additional information is available at www.avixa.org and www.avixa.org/retailAV.
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