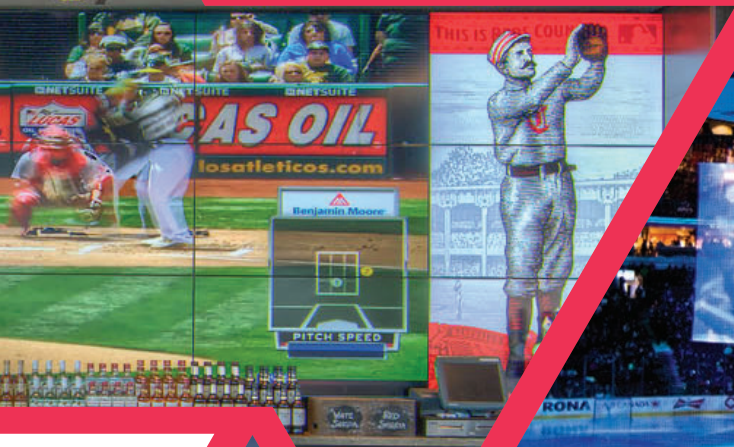


Five Ways Sports Venues Can Benefit From Audiovisual Technologies



AVIXA



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An AVIXA White Paper

“Take me out to the ball game!” We all know the song. It’s more than a century old, reflecting a simpler time when sports were largely an afterthought, a diversion from the everyday world; when sports fans donned their Sunday best to root for their hometown heroes on the baseball diamond, watch exhibitions of pugilistic skill, and cheer for their Alma Mater at the homecoming football game while wearing a racoon coat.

Today, the playing field has changed completely. Collegiate and professional sports are enterprises collectively worth hundreds of billions of dollars. Multiple TV networks are devoted to 24/7 sports coverage. Merchandising plays an increasingly larger role in the experience — dressing up to go to the ballpark today means donning a \$100 jersey of your favorite player. Increasing numbers of fans participate in fantasy leagues and play sports-themed video games, streaming live events to their phones.

Even the venues have changed. It’s not just about watching the game anymore, it’s also about the fan experience while at the stadium. And audiovisual technology is intrinsic to that experience, from digital signs that wrap around stadium façades to luxury suites with big-screen TVs for watching the game with all the creature comforts of home. It’s about interactive play areas where kids throw the winning touchdown or hit the decisive free throw.

It’s hard to believe that a fan would need any more entertainment than the actual game, yet many sports venues now feature elaborate light shows with loud, pounding musical scores to introduce the hometown heroes. The playing court or hockey ice turns into a de facto projection screen, with images mirrored on hundreds of display screens in and around the venue, creating a virtual immersive space detached from the outside world.

Stadiums, ballparks, and arenas aren’t just for playing games. Team offices within these walls are incorporating the latest in AV technology to follow annual player drafts, scout minor league and collegiate teams, and plan trading and contract strategies. Within these rooms, hundreds of video channels, player profiles and bios, and statistical information can be called up at the touch of a screen, using the latest in networked AV technology.

Even players’ locker rooms have evolved from crowded spaces with wooden benches to luxurious suites, complete with multiple TV screens, videogame consoles, and LED signage. Major collegiate programs use facilities like these to help recruit blue-chip players to their programs.

Here are five ways teams and venues are using the latest AV technology to connect with and excite their fans.



ARENA

ROGERS ARENA



CANADIAN ROGERS NHL VIAGRA

BE/MAX Tim Hortons

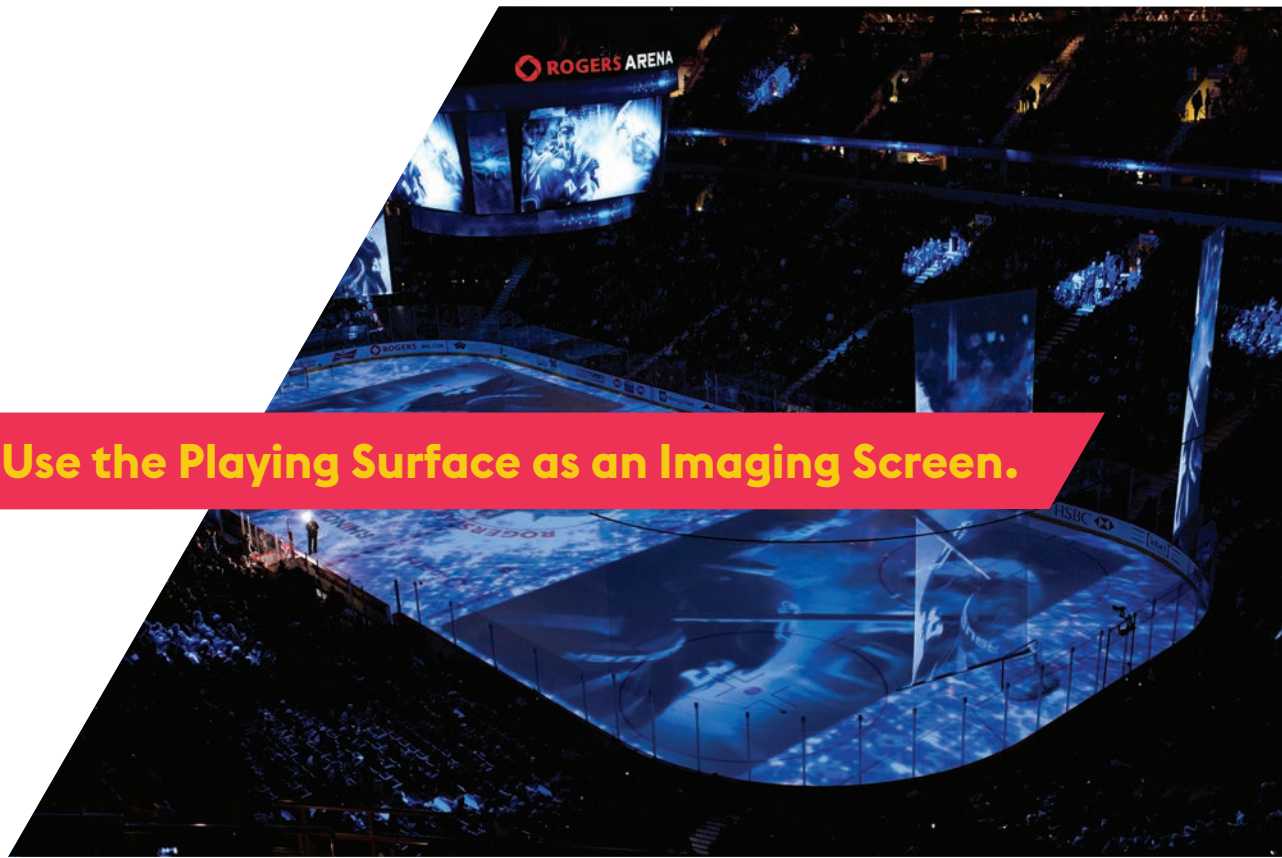
VANCOUVER

STANLEY CUP PLAYOFFS

ROGERS ARENA

VANCOUVER

Rogers Arena



#1 Use the Playing Surface as an Imaging Screen.

As video projectors have increased in both pixel resolution and light output, they are being used in clever ways. The most innovative of these is known as projection mapping, where a wide range of surfaces – flat or not, symmetrical or irregular – become de facto projection screens, lit by solid-state projectors with tens of thousands of lumens of light energy.

During pregame, halftime, and intermission, these projections provide extra value to fans above the cost of admission. They've been used to rev up the crowd before the home team takes to the court, to promote patriotic or charitable support for various causes, recognize star athletes, and to create virtual spaces. In particular, the reflective property of ice lends itself well to projection mapping – a fact that has not gone unnoticed by hockey teams that are putting it to good use.

The 475,000-square-foot **Rogers Arena in Vancouver, British Columbia**, is home to the National Hockey League's Vancouver Canucks team and served as the official ice hockey venue during the 2010 Winter Olympic Games. Recently, team management decided to enhance the fan experience by installing

a high-power mapping system consisting of four 30,000-lumen projectors, video servers, and specialized processors to create and map images measuring 200 by 80 feet on the ice. To add dimension and scale, four hanging scrims standing 40 feet tall are positioned at each corner of the rink, creating additional vertical projection surfaces.

Canucks fans are treated to a custom-created pregame ceremony that includes imagery shown during national anthems. In moments when action on the ice has paused, the projectors map images to specific surface details on the ice, such as boundary lines and logos. A massive light show occurs at the end of each intermission, enlisting the projectors to elevate the intensity level of the crowd with rock-concert styled effects. No hockey game would be complete without the traditional "three stars" presentation at the end of the game, using custom graphics to accentuate the awards ceremony.



Chicago Cubs

#2 Enhance the Fan Experience With Immersive Retail.

There are dozens of major league sports teams across the United States and Canada, including 62 Major League Baseball and National Football League teams. Every one of those teams has a loyal following, with some having a national reach. Accordingly, sales of team-branded merchandise have skyrocketed. Caps, jerseys, T-shirts, souvenir bats and balls, keychains, license plate holders – you name it, and you can find it emblazoned with the name of your favorite team or player.

The “old school” approach to selling fan merchandise was to set up simple kiosks and cash registers. But that’s fallen out of favor as more teams move to a fan “superstore”, combining sales with immersive experiences. It’s hard to find fans more loyal than those of the **Chicago Cubs** baseball team, which plays in the second-oldest stadium in major league baseball, Wrigley Field. It has resisted the temptation to move to a state-of-the-art stadium, as many other clubs have.

One tradition the Cubs did break with was a 108-year-old drought as “loveable losers,” when it won the 2016 World Series – its first championship since 1908. Not surprisingly,

sales of Cubs hats, shirts, jerseys, jackets, and other gear went through the roof and the team was hard-pressed to keep up with demand. As a result, a new flagship Cubs store was constructed just outside the stadium. This 8,400-square-foot retail space features a 4x4 LCD video wall, installed on a curved radius wall above the main stairway, that uses ultra-thin bezels to create the appearance of a single larger-than-life screen.

The Cubs also wanted to provide fans and visitors with a unique, interactive experience at the store, so the club installed an augmented-reality video green-screen attraction, featuring an 86-inch 4K LCD display. This green-screen lets fans create and view high-resolution pictures of themselves placed into famous Wrigley Field scenes such as inside the manual scoreboard, behind home plate, or in the ivy of the outfield wall. More than 20,000 Wrigley Field “selfies” were taken during the first season of operation.



University of Kentucky



#3 Reimagine the Locker Room.

The term “locker room” usually conjures up images of cramped, dingy, and smelly spaces for athletes to change before and after games. But that’s another norm tossed on the scrap heap. Today, both collegiate and professional teams have locker rooms that are as luxurious as a hotel suite with plush carpeting, whirlpool baths, and lounges with big-screen televisions. Some even provide video game consoles for players to entertain themselves with between workouts.

The University of Kentucky Wildcats is easily the most successful NCAA Division I basketball program in history in terms of all-time wins, NCAA tournament appearances and wins, and all-time winning percentage. A \$5 million renovation of its team lounge and locker facilities in 2017 resulted in the new Marksbury Players First Suite and Healy Family Locker Room.

Upon entering the new suite area, visitors are greeted with an interactive media wall composed of three, vertically-mounted 86-inch 4K LCD displays, the middle of which is a touchscreen. This interactive

media wall is primarily used as a recruiting tool, stressing the program’s past achievements. Users can view Kentucky’s national championships as well as the current roster, including stats, images and video highlights of each player. The media wall also showcases former players who are in the NBA, illustrated vividly through photos, profiles and intermixed footage showing both NBA and Kentucky highlights of each player.

The suite’s entertainment area features a 13-by-8-foot, narrow-bezel LCD videowall in a 4x4 configuration. Players are free to hook their Xboxes or PlayStations into the video wall via an HDMI connection. In the Wildcats’ locker room, an LED video wall with a 1.5 mm pixel pitch was custom designed into a continuous LED ribbon board and installed above the team lockers for a 360-degree seamless display matching the locker room’s circular design.



Cincinnati Reds



#4 Build Advanced, Flexible AV Networks.

Unlike the Chicago Cubs, most baseball teams have built new stadiums within the past 30 years, adding features such as luxury boxes, padded seats, and large concession areas. In contrast to single-function stadiums of the past, today's ballparks have more in common with shopping malls, with all types of sights and sounds competing for fans' attention.

The oldest team in professional baseball, the **Cincinnati Reds**, plays at the Great American Ballpark along the Ohio River. Constructed in 2003, this stadium recently underwent major upgrades to its audio and video systems, primarily driven by a need to migrate away from old, bulky and complicated AV signal management systems to newer, simpler, and scalable network-based architectures. With so many sources of video to choose from (live and recorded video, streaming video, optical disc playback, high-end graphics) and a multitude of destination displays, the software-controlled network approach made perfect sense.

The first space to be renovated was the so-called "War Room," where Reds officials, coaches, and scouts conduct baseball trades,

watch college baseball games, and do all their prospecting for draft day. This room features three 80-inch LCD displays and a videowall with 12 DirecTV set-top boxes that can be routed to any one of those displays at the touch of a button. Individual channels can be windowed so personnel can watch different games simultaneously. Nearby, the Reds' Super Suite features 10 interactive displays equipped with wireless presentation systems, videoconferencing, Blu-ray playback, digital signage, and HD tuners all acting as sources.

The Handlebar Club contains the second largest videowall in the stadium with a 3x5 LCD monitor matrix, in addition to 20 other televisions throughout the club. Finally, the Scouts Club features 42 displays including two interactive 2x2 videowall columns. Each booth in the restaurant features a touchscreen display where customers can order food, watch live television, or pull up the game-day schedule. All these rooms sit on an advanced AV network and all signals are switched in software.





ATHLETICS HA

GERALD R. FORD

Year: 1962/64

High School: Grand Rapids (South)

Year Inducted into Hall of Honor: 1974

28th President of the United States, 1974 to 1977

40th Vice President of the United States, serving from 1973 to 1974

National Football Foundation and College Football Hall of Fame, Gold Medal

University of Michigan



#5 Promote and Sustain Team Brands.

Both amateur and professional sports teams have considerable investments in their brands and legacies. In some cases, those brand and legacies can be used as recruiting tools; in others, they motivate fans to follow teams and purchase memorabilia. People may age, they may move, but they rarely lose their interest in the home team.

Sports teams use different audiovisual tools to captivate interest, stir up emotions, motivate purchases, and provide immersive experiences that complement game-day action. The **University of Michigan's Crisler Center** is a prime example of promoting and preserving a brand while generating enthusiasm along new fans — all by using the latest in AV technology.

The Crisler Center is where the Wolverines basketball team plays its home games. Among the displays on the concourse are seventeen 46-inch LCD touchscreens, known as Individual Sports Interactives. Fans can use these displays to explore any University of Michigan sport in photos, video, or text; call up stats from a recent game; learn about upcoming games; and purchase tickets. Additional displays are used to create several Kids' Zone Interactives where younger fans

can create a customized Michigan bobblehead photo or compare their jumping ability or "wingspan" with that of a Michigan player.

A 55-inch interactive LCD touchscreen greets fans with "The House That Cazzie Built," a story about guard Cazzie Russell, who led the Wolverines to three consecutive Big Ten Conference basketball titles and two NCAA Final Four appearances. Finally, a pair of 5x3 interactive LCD videowalls in Crisler's Hall of Honor function as touch-screen digital "libraries" of Michigan's storied athletic history. Each wall offers touch access to five fans simultaneously, so they can look up player profiles, titles, awards won, historic game images, and film footage. Fans can also put up a virtual shot from the arena floor or direct a virtual quarterback in a football game.

Like other AV experiences in sports, the University of Michigan takes what's been a passive activity — watching games — and makes it immersive. New and clever audiovisual solutions stimulate fan interest in and sustain a connection before, after, and during events. A game is now more of a theatrical production, drawing fans in and building strong bonds.



About AVIXA

AVIXA™ is the Audiovisual and Integrated Experience Association, Founding Sponsor of ALSD International, from the Association of Luxury Suite Directors. AVIXA and its members aim to help venue operators and sports teams 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 is 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/sportsAV.





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