The Future of Play

From next-generation soccer stadiums to fan-focused digital technology and real-time 3D environments, *Think Quarterly* looks to the future of live-action sports.

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he ancient stadium was a grand temple to the gods of competition, built to awe, inspire, and to last. But times have changed. The motto of this summer's London Olympics is 'Reduce, Reuse, Recycle,' and its environmentally friendly HQ is constructed from repurposed gas pipes, low-carbon concrete, and removable sections.

The stadium of the future will be a fusion of technology and sustainability, radically altering the ways in which we connect to the action in front of us, whether on the football pitch, athletics arena, or baseball diamond.

A glimpse into this future can be seen in Albert Speer & Partner's designs for Qatar's winning 2022 soccer World Cup bid. Every one of the 12 proposed structures is beautifully conceived, from the Doha Port Stadium that looks from above like a one-eyed sea god



The facade of the Al Garafa Stadium will be made up of the colors of the flags of competing nations in the 2022 soccer World Cup

surrounded by the Gulf, to the Al-Shamal Stadium's artfully sloping wooden crown that emulates the traditional 'dhow' fishing boats that bob in neighboring waters.

But there's more to them than mere eye candy. AS&P kept social sustainability at the center of its plans: From scrutinizing the proximity of residential areas capable of benefitting from solar power stations used to cool stadiums, to pencilling in new shopping districts and theme parks at several of the sites. Around 70,000 of the proposed seats are set in removable tiers so stadiums can be downsized following the month-long competition. There will be none of the expensive white elephants that blighted the legacy of the last World Cup in South Africa.

The designs reflect certain elements of one of the most successful European stadiums of modern times — the space-age Allianz Arena in Munich, Germany, which operates at 90 to 100 percent capacity for Bundesliga games thanks to a series of measures that help to bring previously unconsidered soccer fans into the fold, from entertainment complexes and corporate facilities to safety measures separating rival teams.

"These days I go to games with my six-year-old son," says Axel Bienhaus, partner at Albert Speer. "That would have been unthinkable for my own parents – football games were too rough for children back then - but now it's families and corporate clients that are helping revitalize the industry in terms of ticket sales. Not that traditional football fans should feel that their stadiums are being taken away from them: Security measures and VIP facilities, when they're designed effectively, are invisible to the average person in the stands. And, of course, you still need old-fashioned fans to keep the atmosphere at games alive."



The Al Shamal Stadium's shape is derived from the traditional 'dhow' fishing boat used in the Gulf

The aim is to offer those fans something they can't get at home, where the viewing experience has been revolutionized by high definition, 3D and multi-angle replay wizardry.

"The challenge is the same as with concert halls," says Bienhaus. "When music-lovers have the sort of systems at home that sound better than a live performance, organizers have to work to make the atmosphere the thing that's worth buying a ticket for. In the same way, when football fans have high-definition games in their living rooms, our job is to persuade them that no amount of technology can replace the atmosphere of being on top of the action in a real football stadium. I think the success of the Allianz Arena proves that it's an argument we're winning."

ot everyone in the business is assuming that the undiluted power of live sports is strong enough to withstand the influence of digital media, however. Some, like Asim Pasha of Kansas-based technology company Sporting Innovations, believe that the only way stadiums can survive is by incorporating elements of the digital experience into more traditional ticketed games.

As such, Sporting Innovations is implementing digital upgrades for stadiums around the world that it hopes will foster long-term relationships between fans and teams, upturning the conventional notion of games beginning and ending with the referee's whistle, and transforming fans into more than mere spectators.







Fans 'check in' at the LiveStrong Park in Kansas City

"The first step is to help fans develop a persistent connection to their team," says Pasha, "giving them enough data to let them engage with players in a meaningful way and helping them understand why games are important. Once they come into the stadium, we're then able to provide a more personalized experience: We know where they like to sit, what products they bought last time, what social circles they move in.

"Over time, clubs will be able to tailor products or services to individual fans, and before long we'll enter a state of 24/7 connectivity in which fans are fully aware of the relationship in which they are actively engaging, and being rewarded for their engagement. It's about helping fans shape the live sports experience of the future, about creating VIP experiences for everyone, no matter where they're sitting."

This final phase, according to Pasha, is three to five years away. The technology being developed by Sporting Innovations is still at a shallow point on the adoption curve in an industry not known for embracing new ideas, but at the LiveStrong Park – home of soccer team Sporting Kansas City – the first stages of implementation have met with

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notable success. Telecoms company Cisco has installed 30 miles of fiber optic wire and 200 routers, allowing the 20,000 capacity crowd to interact with the game via smartphones at high speeds and without interruption.

That interaction takes many forms: From checking into seats to facilitate meetups or order half-time snacks, to sending out '#sportingKC' tweets that are then displayed on the giant screen at one end of the stadium. Fans can watch personalized replays or play any number of themed games - from predicting what happens next on the field to answering trivia questions about the team, all for redeemable reward points - while Pasha tracks phone signals and foot traffic to help the club predict and encourage behavioral patterns among its fans. And it seems to be working: Ticket sales rose on average from 3,000 to 12,000 per game last year, despite prices going up to pay for the new technology.

here Sporting Innovations is using digital technology to deepen the connection between fans and team, at 3D tech specialist EON Reality, they're going a step further: Bringing the entire sports arena into the home.





EON's Icube promises to unlock the potential of 3D for fans and professional athletes alike

Engineers at EON's HQ in California have developed the Icube: A linked sequence of computers projecting images onto a series of walls, around which users wander wearing stereoscopic glasses, their movements tracked by motion sensors. The result is a total-immersion 3D experience of the type once prophesied by early virtual reality.

For fans, the implications are breathtaking. Soon, they'll be able to plug in at home, don a pair of glasses, and find themselves in the stands of any stadium, anywhere in the world, as a game unfolds live before their eyes, with a field of vision that moves according to the motion of their heads. The technology is still under wraps but could be widely available for home use within three years.

It's already being utilized by sports coaches looking to help perfect their players' techniques. "The power to revolutionize training is already in our hands," says Brendan Reilly, a former Illinois State basketball coach drafted by EON as director of its sports division. "Right now in our offices we have the ability to stand next to lifesized versions of ourselves swinging golf clubs or throwing footballs, to put ourselves right in the field of play.

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At elite levels, what separates good players from great players is the ability to slow the game down mentally, to read plays and make critical decisions. And virtual reality allows us to do that while evaluating biomechanical motions and correcting errors, breaking things down to a level we've never seen before."

Asim Pasha is surely correct when he insists that ignoring the digital revolution isn't an option. "We're often asked about the risk of creating fans who sit in stadiums and watch the game progress on their screens, rather than on the field, but it's up to us to creatively influence the technology so that doesn't happen," he says. "We have a gaming app called Live Play, and you can't compete in that game unless you're watching the action unfold, because you have to answer questions based on what's going on in real time. We think it's things like this that will help people follow events more closely and understand the game better, because the fans who are best rewarded will be the ones who literally keep their eye on the ball. That's the sort of model we're aiming to promote: Not to replace the reality of live stadium sport but to enhance it. That's the future, as far as we're concerned."