



4 Innovations in Virtual Sets that Captivate Viewers

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That's why in this checklist, we are breaking down four of the latest advancements in options for virtual set production, so that you can get inspired to take your sets to the next level. By sharing use cases from two international leaders in sports and news broadcasting, BBC Sport and Televisa, we will cover the following four innovations:

- Fully virtual sets
- Hybrid of AR within physical studios
- Outdoor live production with AR
- Flexible data integration

1. FULLY VIRTUAL SETS

With no physical LEDs and often only a small green screen box to work with, designers for some top media companies are creating expansive, fully virtual sets with major wow factor.

When BBC Sport planned their coverage of the Beijing 2020 Winter Games, they built on the success of using a green screen studio during the previous summer games. It was important to minimize talent and crew travel at that point in the pandemic, so shooting as much as possible from a virtual set in Salford, UK made sense logistically, financially, and from a health perspective.

“We had a small studio space at Media City which was not being used as much as we would have liked so we decided to convert it into a green screen space,” said John Murphy, Creative Director and Head of Graphics for Sport at the BBC. “With the virtual design and rendering technology we now have a studio that has 5 different presenting positions and is able to house a variety of our sports output.”

It's a small studio – only 84 meters squared – but to the viewer, it looks huge thanks to graphics that stretch the views in all directions. The collaboration between Vizrt's suite of products, Unreal Engine 4 as the render engine, and set designs from BK Design and Lightwell provides audiences with dynamic graphics to accompany sporting analytics, highlights during programming, and exceptional visual stories for the viewers.

Now BBC Sport has expanded use of the studio to cover Masters highlights, Australian Open tennis, Match of The Day, and more.

Virtual set tip: *Don't let the physical boundaries of a space define the limits of the virtual set. Create depth and dimensionality using virtual video walls and negative space.*



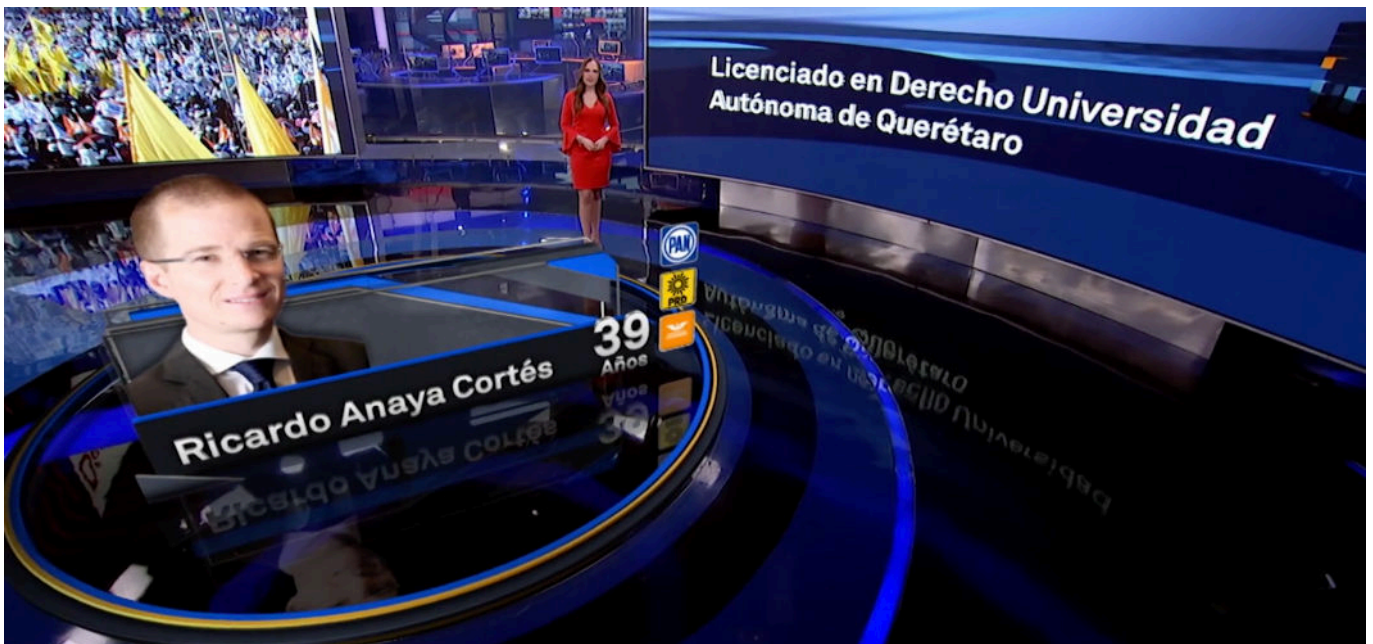
2. HYBRID OF AR WITHIN PHYSICAL STUDIOS

Other media companies are expanding the bounds of their physical studios using augmented reality (AR).

Televisa supported its massive coverage of the Mexican elections by building three new production studios – one outside and two indoors. The two indoor studios were built in Televisa’s Chapultepec, Mexico facility. One is a circular studio with two video walls and virtual windows showing AR elements coming out of the screens, and the other studio has one virtual window video wall that served as the main studio on Election Day.

They utilized real-time AR graphics to add new dimension to the coverage, systems supplied by Vizrt and design by Polygon Labs along with the use of Erizos plugins to improve the visual effects.

“This was a very complex production, spread across three different locations, so all of the graphics systems had to be perfectly in sync and work together as one,” said Elias Rodriguez, General Manager of Operations at Televisa. “We worked very closely with the Vizrt team over many months prior to the elections to get it right, and in the end, the results were well received by viewers.”



3. OUTDOOR LIVE PRODUCTION WITH AR

One of Televisa’s new studios was set up outdoors in the Santa Fe Gardens at its headquarters in Mexico City. They took advantage of the outdoor space to display large AR set pieces that go beyond the walls of the studio like a replica of the Legislative Palace of San Lázaro, a massive video wall for election data, and panels that rose out of the water in Santa Fe Gardens.

“The project went off without a hitch and helped us prove that virtual sets, and particularly AR graphics, are the new way to captivate an audience and provide highly informative and unique on-air coverage,” said Yolanda Ocampo, Producer for Televisa’s Elections project and daily primetime news show, adding that Vizrt’s real-time graphics technology is easy to use and ideally suited to this type of multi-venue, multi-screen production.

“We’re seeing more and more applications where virtual graphics significantly help a production attract new and loyal viewers. In fact, our Elections coverage this year drew the largest audience we’ve ever had for such an important election. It was a resounding success for all involved.”

Virtual set tip: Utilize the features of an outdoor set to extend graphics, as Televisa did with the water and greenspace in the Santa Fe Gardens.



4. FLEXIBLE DATA INTEGRATION

Both BBC Sport and Televisa infused their virtual sets with Vizrt’s data integration technology. In fact, it was data-driven graphics that led BBC Sport to work with Vizrt on their virtual set. Their production team was familiar with Vizrt products, so while Viz Arc, which provides ultimate control of Viz Virtual Studio and AR Graphics, was a new addition, it came with a level of familiarity.

“It was a bit of a no-brainer that we were going to keep it with Viz.” said the BBC’s John Murphy.

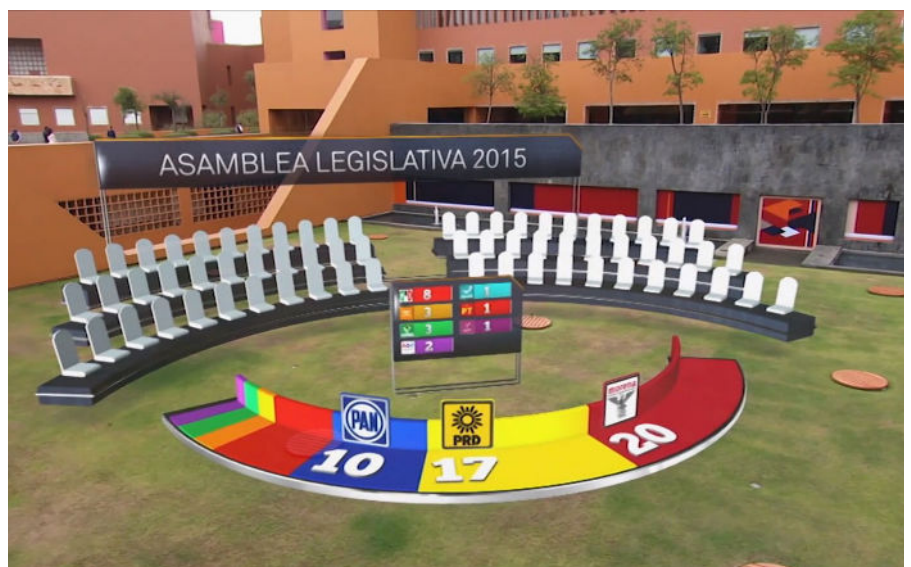
On Mexican election day, Televisa presenters interacted with live AR results, charts, polling numbers, and candidate profiles as election data came in. Graphics with data integration allowed on-air presenters to tell the election stories more visually, which in turn, helped viewers understand the subject matter more clearly.

Most important to controlling the on-set graphics displays was a Viz Multiplay system, which gave technical crews a simple way to control the screen content from a single interface. Instantly, they were able to distribute data to the multiple screens of their three sets with different configurations. This allowed for easy last-minute changes when necessary.

Virtual set tip: *Choose tech that allows for easy, fast-paced changes necessary in live production.*

“We were able to execute the election night with speed and precision due to the flexibility of Viz Multiplay and the great team at Televisa and Vizrt,” said Grig Mindlin, CEO of Polygon Labs.

“This was a very well-coordinated effort between Televisa’s production and engineering crews, Polygon Labs, Vizrt, and Digital Logic. The work highlighted Vizrt’s technical solutions and required great teamwork between all of the partners involved to get it right,” said Francisco Guerrero, engineer and co-owner of Digital Logic with engineer Jose Maria Gil.



Across our suite of tools, Vizrt’s data integration is second to none, and the reason news broadcasters around the world – CBS News, BBC, Al Jazeera, Al Arabiya, Channel News Asia, CNN, DR Denmark, Fox News, ITV, NBC News, Televisa, Sky News, Telemundo, and more – all used Vizrt graphics technology in their coverage of the 2020 and 2022 US elections.

CONCLUSIONS

Each of the four innovations – fully virtual sets, hybrid of AR within physical studios, outdoor live production with AR, and flexible data integration – offers the ability to create a rich, exciting viewing experience with compelling visuals that inform and entertain viewers, ultimately leading to increased viewership.

That's why Vizrt offers a suite of production tools that work together – and with other third-party applications – to design leading-edge virtual sets. If you are ready to see what Vizrt's virtual set tools can do for your broadcasts, **book a demo.**