

Beam me out to the ballgame

By Jeremy Bailenson | July 29, 2020



A mockup of how fans could be superimposed in a ballpark seating.
Photo: Illustration by Tobin Asher / Stanford Virtual Human Interaction Lab

San Francisco Giants fans have until Wednesday to buy cardboard cutouts of themselves to put in the stands for the next home series at Oracle Park on Aug. 14. Fans can even try to buy a seat for their likeness to “sit” next to a celebrity.

A coronavirus outbreak in the Miami Marlins clubhouse that threatens to torpedo the rest of the shortened pandemic season might mean no one will get to sit next to a member of Metallica or Jerry Garcia, who will come back from the dead to sit in LB129, Row 12, Seat 9. But if baseball continues, the sport should scrap the creepy cutouts and beam real fans’ faces and cheers into the stadiums from their homes using augmented reality.

Cardboard standees get old fast. Even as home teams get clobbered, there’s a sea of happily grinning fans for an entire game. The canned crowd noise played by DJs inside the parks don’t come close to the real thing. More than one announcer has bemoaned that home field advantage doesn’t work without crowds. With augmented reality, the fans can be live, interactive and a part of the action of the game.

There is no fancy technology required. Most videoconferencing software allows you to go into “background mode,” where it uses computer vision to create a video cutout of the person, and then puts that cutout in an anonymous scene, like a desert island, or a perfectly tailored office straight out of a catalogue. Similarly, fans should be able to put a webcam on top of their TVs and use software like Zoom to beam their live video cutouts into the seats for the TV world to see. The NBA is experimenting with this approach by projecting a few hundred fans onto a big screen courtside using Microsoft’s Together Mode.

MLB should follow suit and put videos of fans in the stadiums. But they could also scale into the tens of thousands by beaming video cutouts directly into individual seats on the network feed. In this sense fans wouldn’t be shown in the stadiums, but would each get their own seat on television. This technique has worked well for decades in sports in “virtual advertising.” For example, ads are beamed onto the grass on a car race, or a game broadcasted in Spanish will override physical billboards with different advertisements for those particular viewers. Fox News bravely used this technique last week, using computer graphics to swarm the stands with robotically moving fake fans.

Season ticket holders will once again get to be on TV, perhaps sitting next to the same fans they sat next to for decades. Doing “the wave” might even be cooler digitally than in-person. And of course, just like in the real games, they can get up and leave the camera feed to grab snacks whenever they want, though there is no need to leave early to avoid traffic. I suspect that fans would figure out fairly quickly how to rent out their seats for an inning or two as StubHub and other resellers get involved. The cost of attending a game will be lowered, and stadiums will once again be full.

But here’s the real boon. With this system, fans could once again use their voices to influence the game. Right now the ballparks are piping in generic crowd noise, at the discretion of a sound engineer. This system has evolved within European soccer over the past few months and MLB decided to allow fake crowd noise.

But with augmented reality the sounds can be genuine. Combining voices of all the individual fans in their homes through their phone or computer is possible, and Silicon Valley startup company High Fidelity has already figured out the math and network issues to make this “shared voice” work at the scale of thousands. The cacophony could be broadcast into the stadium in real time. If people scream loud

at home, the players will actually hear it. This gives fans a stake in the game. And likely now there would be a whole subset of fans who would pay less to beam into the stadium with only their voices. With audio only, a stadium now fits millions of fans.

There will be bugs at first. Cutting off the feeds of fans who are uniquely emboldened without beefy security present will take some trial and error. Given the creativity of fans, flipping the bird might seem tame in retrospect once they put their minds to new offensive nonverbal gestures. And there will be some awkward moments as the computer vision from home cameras glitches and all of a sudden a fan's left arm disappears. But these are solvable and, frankly, in a season like this we could all use a few lighthearted highlights of fan bloopers.

Before COVID-19, stadiums were already struggling with filling stands, as the TV home viewing experience has its upsides, both experientially and economically. Will augmented reality be the nail in the coffin of the physical fan experience? I certainly hope not, and I suspect nothing will replace the sights, scents and sounds of a real stadium. But we often use the term disruption as new technologies emerge, and at the very least we should be doing better than cardboard for the next year.

Jeremy Bailenson is founding director of Stanford's Virtual Human Interaction Lab and a professor in the Department of Communication.