SPY ON SPORTS FANS

BY SEAN GREGORY

STADIUMGOERS, PREPARE TO BE WATCHED. Technology has already revolutionized the games themselves. Armed with video footage, analytics software and a loyal squad of geeks, pro teams can now know every strength—and weakness—of their players, prospects and opponents. "But what if you turn that technology around to the fans?" asks George Williams, a computer scientist at NYU's Movement Lab. After all, the fans pay the bills, so teams would love to know which players get crowds jumping, which music makes them dance and whether or not the mascot entertains them during downtime.

Williams has all that information. He's spent the past three years developing new camera software that scans facial expressions to identify fan behaviors—think cheering, jeering, talking on a cell phone—in real time at a stadium. So a company can measure, for example, how many eyeballs are attached to a jumbotron ad (are fans looking?) and how well its being received (are they laughing? Smiling? Fiddling on their phones and ignoring it?). In other words, it's like Nielsen ratings for crowd behavior at a sports event. Says one NFL executive, who watched Williams unveil his creation at the annual MIT Sloan Sports Analytics conference in early March: "That information is incredibly valuable."

Naturally, the tech raises privacy concerns. But Williams says stadiums that use it won't be recording actual footage of fans—at least not more than they already do for TV. The data appear more like a heat map, with different colors depicting different behaviors. Getting that kind of feedback could encourage team owners to improve their ads and promotions—and, heck, even their teams—to create a more engaging experience and ultimately sell more tickets.

Williams says his service will get a slow rollout starting with one pro-sports organization in late summer. If that works well, it's not hard to imagine the program spreading to most stadiums—and similar tech popping up in airports, concert venues and even your local shopping mall.

CHEERING
This crucial metric allows teams to reward excitement: encourage the most enthusiastic section with a discount. Perhaps that noise can inspire the home team to victory.

STANDING
Too many fans standing in a section, especially during mundane moments, may signal an obstructed view. This info can help improve architectural design.

EATING
If fans in certain sections buy less food than others, stadiums can send servers over to take orders and increase profits.

TALKING ON THE PHONE
Unless they're bragging to their pals about their seats, this is likely a sign of fan indifference. But strong in-stadium mobile coverage can create customer loyalty.

SITTING
Fans using their phones will show sports analytics a low-sentiment activity. This is sports, not the theater. Stadiuums could offer more T-shirts toward these areas in order to raise hype.

TEXTING
For fans who are addicted to their smartphones, a team can take advantage by offering interactive apps or creating trivia contests that people can enter via text.

DRINKING
What are fans more likely to pick up an ice-cold soda or beer? Stadiums can dispatch vendors depending on what they find.

ILLUSTRATION BY THOMAS PERESTILCO FOR TIME