

# BROOKINGS

COMMENTARY

## Tom Brady says technologies enhanced his performance

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- The NFL has become one of the most popular spectator sports in the United States and one which has embraced advanced digital tools.
  - Studying film on other teams, developing skills through training videos and digital sites, and tracking athletic performance through data analytics are just some of the ways emerging technologies have changed the game.
  - As in many areas of human endeavor, AI, data analytics, and mobile communications are transforming performance, communications, and strategic decision-making.
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Digital technologies have transformed many sectors of life from [telemedicine](#) and [education](#) to [energy conservation](#) and [commerce](#). But one under-appreciated area where tech is transforming performance is in the National Football League (NFL). The NFL has become one of the most popular spectator sports in the United States and one which has embraced advanced digital tools. Broadcast numbers demonstrate that NFL games are among the most [widely watched programs](#) in the country, with top games routinely pulling in millions of fans.

Yet many observers may not be aware of how NFL players, coaches, and owners are using [mobile technologies](#), cloud platforms, and data analytics to improve player performance, provide learning opportunities, and enhance the fan experience. In a

recent [PunchBowl News](#) forum in Washington, DC, NFL legend Tom Brady outlined several areas where technologies helped improve his performance.

## Film study

One area he highlighted was film study. As a player, Brady was famous for his [meticulous game-day preparation](#). He would spend hours each week [studying film](#) on the other team to learn player strengths and weaknesses. He would pay increased attention to the defensive players he would face that week to see if they had particular tendencies or telltale signs of how they would react in a given situation. The insights he gained from this digital film study put him in a position to excel and win championship games.

During the forum, Brady highlighted a specific example from the 2021 Tampa Bay Super Bowl game. Studying film the day of the game, he identified a “look” from the Kansas City Chiefs he felt he could exploit. He videotaped the play, sent a group text to his running backs and receivers, and added an audio voice note over the video explaining if players saw that defensive alignment, he was going to shift to a different play. During the game, that situation actually developed and he was able to pull out a good play just as he had communicated to his teammates a few hours earlier.

## Skill learning

Another area he emphasized was skill learning and talent development through digital means. He noted that training videos are widely available on social media platforms and digital sites and they help athletes around the world perfect their skills and learn new techniques for performing at a higher level.

A specific example he cited was his daughter Vivian’s ability to learn volleyball. Although not a volleyball expert himself, he joked, he found [online videos](#) that demonstrated effective volleyball techniques and he would practice those things with his daughter in order to help her develop athletic abilities. There were tutorials outlining different drills, ways to spot the ball, and discussions of volleyball best

practices. The explosion of video tutorials via the internet in recent years has helped both amateur and professional players around the globe, he pointed out.

## Game rehearsals

Referring to his new career as a sports broadcaster, Brady highlighted the way digital technologies improved real-time communications between himself, his fellow announcers, and the technical experts who direct the camera shots, replays, and performance assessment during the game. Doing so in real time and with close coordination is vital to this group of people because of the fast pace of the game and the desire to provide a good experience for the fan.

He noted that in preparation for the upcoming fall season, he already had done a rehearsal game for Fox Sports in which they used a football game to give him experience with analyzing player moves in real time, strategic decisions, replay situations, and game dynamics. Since there are so many people involved in broadcasting NFL games, Brady requires instant communications and an ability to move quickly, identify emerging patterns, and integrate real-time videos and data analytics in his commentary. He said that having the ability to learn about new technologies and apply them in game situations was crucial for his development as a budding broadcaster.

Other players beyond Brady have noted the importance of movement sensors and data analytics to tracking athletic performance. Teams have equipped their runners and pass-receivers with GPS sensors that monitor their movements, speeds, and timing patterns. In conjunction with video analysis, these devices aid players and coaches in determining what movements work and how to improve play execution.

Looking forward, advanced data analytics enable coaches to determine the probability of success of running a play on fourth down, kicking a field goal at particular distances, and the viability of run versus pass plays. Virtual reality headsets can put players in specific situations and see how they react under pressure and whether they make good decisions. In conjunction with AI and other digital tools (<https://www.brookings.edu/articles/how-the-nfl-is-using-ai-to-evaluate-players/>),

they help with game-time strategizing and figuring out which plays are likely to be successful.

As in many areas of human endeavor, AI, data analytics, and mobile communications are transforming performance, communications, and strategic decision-making. The NFL is just the latest example of how this is happening and why people should pay attention to emerging tech tools. Our goal in all of these areas should be gaining the benefits of digital innovation while retaining human control over the tools. We don't want future football stars to be virtual agents or high-performance robots.

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