The Future of the Game

All around the world, American Football is a beloved household sport that creates excitement and brings families and communities together. This traditional game has increased its reach on the world in ways that are just beyond belief. The National Football League was the #1 watched tv in the United States. This rapid growth of interest in the game has caused there to be many advancements on how the game is played, studied and viewed by fans. The most recent technological advancements that are still being put in place is the use of artificial intelligence or (AI).

The use of artificial intelligence in sports across the world has been a really big topic over the past few years. But, when it comes to football it seems that football has been on the backend of these advancements. One major reason for this is that most major sports (like baseball and soccer) can have up to or more than 60 games a year per team while having hundreds of teams. Football is limited to about 24 games a year with only 32 professional teams. Although, there is plenty of data to collect from, it still isn't enough to progress in making algorithms to advance the game at a pace of the other professional sports. Also, football is more than just running and hitting people. It is a big game of chess that requires players to not only react, but to almost know what the opposing team is planning to do before they do it. This is where AI systems like AWS and Data Robot come in.

The systems AWS and Data Robot are two of the main artificial intelligences that are being used by the NFL. How these systems are being implemented into the game have not only changed the game but has made it safer to play. They take all of the information from every team and compile them in databases to analyze the data and decide what is useful data. The data that is kept helps teams to see how players performance affects the games, what movements are likely to cause injury, and even what other teams are going to do the next play. It is standard now for all players on and off the field to have their movements tracked whenever they are practicing. So when players are doing great things on the field, they can know how they can replicate their performance week in and week out. This also allows the data scientist to analyze what movements are common when certain injuries occur. They can see exactly when and how the injuries occur. This allows coaches and trainers to teach techniques to either change players movements or to train their bodies to get accustomed to being in those compromising positions. For knowing the opposing team's next plays is a bit different because of how the game is played. The AI can't see into the playcallers mind and see exactly what they are going to do. But, what they can do is look at all of the plays called over the years and break down every play and pick up on the tendencies. All coaches watch film to pick up on tendencies of opposing teams. This advancement allows coaches to focus more on other aspects of the game. The problem with the AI picking up on tendencies is that it isn't 100% correct. The game is always changing due to

injuries, roster changes, and unexpected factors. For example, different players bring different skill sets to the field. If the team had a really good running back and mid season he gets hurt, then the tendencies that the coach would usually have will change to adjust and give his team the best chance at winning. This is why the systems can never 100% predict what is going to happen, but only give a close breakdown of what is likely to happen.

There are plenty of applications that the NFL is looking into so that the game can continue to advance with the use of AI and machine learning. The future of the game is going in the right direction and I am looking forward to seeing the continued growth of the game.