

ST. JOSEPH'S COLLEGE OF COMMERCE (AUTONOMOUS)

Affiliated to Bengaluru City University

Accredited with 'A++' Grade(4th Cycle) by NAAC | College with Potential for Excellence (CPE)

Ranked 72nd in NIRF 2020 by MHRD

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ANALYTICS BEACON

AN INITIATIVE BY
DEPARTMENT OF
COMMERCE
[ANALYTICS]

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The B.Com (Analytics) Programme develops individuals who can pursue career in the area of Analytics and continue their professional development by specialising in different domains related to Analytics, who can apply Analytics tools and techniques to solve business analytics problems. The programme is accredited by the Institute of Analytics, UK. The degree focuses on the conceptual knowledge in the multiple disciplines of analytics. The college intends to imbibe value based education to the students that will help them to function effectively in their business analytics career. Analytics is the practice of iterative, methodical exploration of an organisation's data, with an emphasis on statistical analysis. Analytics is used by companies committed to data-driven decision-making.

ANALYTICS IN FOOTBALL

INTRODUCTION

Through the decades, sports analytics has broadened its scope significantly. The use of data and statistics has become prolific across the major sectors of the sports industry. In fact, a large portion of the Indian sports teams regularly draw services from professional statisticians for their operations and analysis of various events that take place. Tracking the speed of an athlete, a cricketer's average batting potential are just a few examples for the blend of analytics and sports.



Football is one of the most viewed sports across the globe. It draws the attention of millions of enthusiasts on a single game at the highest leagues. Technology in football over the years has improved. Analytics in the sports industry began with Bill James' metric called the 'On-base percentage' which measured how often a player gets on base. He concluded that it was more important than pure hitting. Billy Beane used data from On-base percentages to recruit players for the Oakland A's, one of the smallest baseball clubs in the league and made incredible success on a small budget. He recruited players by finding inefficiencies in the market, going against conventional scouting wisdom.

Analytics has been changing the ways in which football clubs recruit new players. Big data allows team managers and players to extract insights to improve player performance, prevent injuries and increase their commercial efficiency. This kind of sports data allows a complete reconstruction of the match and helps in predictions and strategic placements of players. Many websites, forums and dedicated organisations have specific data related to performance and other aspects related to the player. The popular companies that are into sports analytics are Wyscout and Opta. The data required by teams or individual scouts are on separate websites. These sites enable teams to acquire players for not just talent but for a specific function that will improve the teams' overall performance.

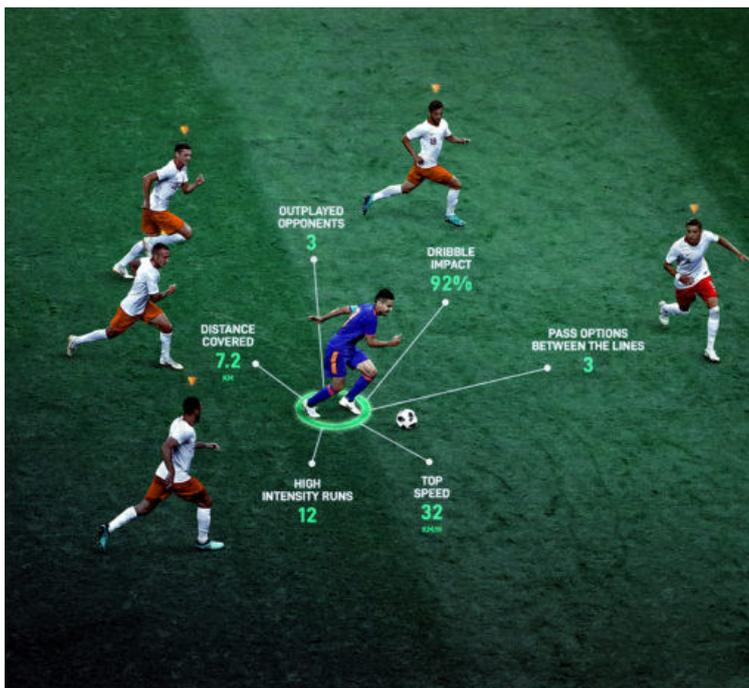
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THE PROCESS

In order to provide effective support for the interpretation and analysis of football games, they need to be observed systematically and comprehensively which help in building informative models. There may be different dynamic parameters for different types of studies Sport game models:

- are based on players' positions, motion trajectories and ball actions as their primitive building blocks; They also represent the interaction between ball actions, game situations and the effects of ball actions and thereby allow for more comprehensive assessment of the games;
- use concepts such as scoring opportunity, being under pressure and passing opportunities, classifying situations and interpreting the game events;
- can be acquired automatically by a camera-based observation system.



One of the most popular concepts in football in analytics is expected goals:

1. Very simply, xG (or expected goals) is the probability that a shot will result in a goal based on the characteristics of that shot and the events leading up to it. For example, an xG of 0.30 means 30% of the time a shot from the location results in a goal.

2. Some of these characteristics or variables include:

- Location of the shooter: distance to the goal and angle of the pitch?
- Body part: Was it a header or off the shooter's foot?
- Assist Type: Was it from a through ball, cross, set piece, etc.?
- Type of attack: Was it from an established possession? Was it off a rebound? Does the defence have time to get in position? Did it follow a dribble?
- Position of defenders/Goalkeeper : Was the goalkeeper in position? Was it an open goal or were there a number of defenders between the shooter and the goal? Was the shooter being pressured? Was it a 1v1 situation with the keeper?

SCOUTING

Analytics offers smaller clubs that do not have the financial resources that the top teams of a competitive league possess. They can't afford to make the mistakes that bigger clubs could make. Every club will be after the same set of players but smaller clubs cannot compete for those players and hence have to look at other players that play similar or differently based on the club's needs. Competing against the mega-rich requires creative thinking.

While scouting for new recruits, managers provide a list of targets to the Analytics team, who in-turn produce a report of their value with graphs, metrics, their strengths and weaknesses and even injury history, all of which help the manager assess their fit for the team. A list of the best players will be created both data and performance wise and be recruited accordingly. The value for money aspect for this critical analysis is extremely high, leaving these clubs in better positions than from where they started. To summarize, what analytics does is provide options and alternatives.



PERFORMANCE

Besides scouting analysis, in-depth performance analysis focuses on development of individuals to maximise their potential. Every player is closely monitored - The sleeping patterns, training sessions, speed, distance covered and optimum performance levels. According to this, the training programmes were altered and personalized to ensure peak performance on a match day. Analysts and managers can even help tell the player where to run, what positions suit him and what positions are the easiest to score goals from. Before any match, there is always a thorough analysis done of the opponents, breaking down their strengths and weaknesses and using them to the team's advantage.



CONCLUSION

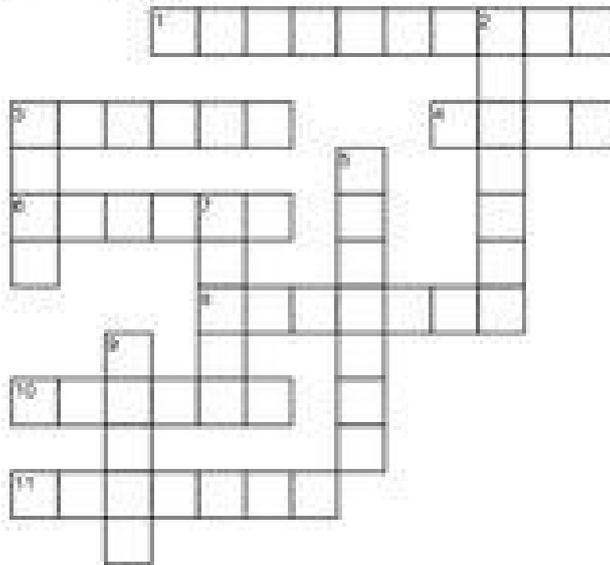
- The boom in the usage of performance sheets and data to identify value points has helped many clubs invest in the right players, especially the smaller clubs. They were more vigilant when young players performed and ensured that they got adequate game-time and training. This practice and experience resulted in potential improvement over time, which in turn benefited the team.
- Data collection has many uses in today's field of recruitment, performance and planning - It plays a very vital role in all of them. The system of data collection has improved over the years and is now more efficient and approachable. All fields of business and services require time to time data for improvement and planning, thus leaving analytics at high regard in the organisational level.
- Football's analytics industry is still evolving and football being a highly complex sport has various factors to be looked into. It is continuous, time-bearing and strategic. Analysts have to select the right language and ask the right questions to derive data of value.

ACTIVITY

World Cup Soccer Center: Crossword

Word Bank

goal	header	goalie	midfielder	forward
assist	carry	dribble	defense	offense
score	FIFA			



Across

1. covers the middle of the field
3. tries to keep the other team from scoring
4. the governing body of world soccer
6. a pass that results in a goal
8. the team that has the ball
10. uses head to pass the ball
11. scores the goals

Down

2. to kick the ball along by yourself
3. score
5. the team that does not have the ball
7. to make a goal
9. to dribble the ball

<https://www.abcteach.com/directory/fun-activities-crossword-puzzles-40-2-1>

SCAN THE QR CODE TO PLAY THE GAME

