

VIDEO ANALYSIS - AN IMPORTANT FACTOR IN THE PREPARATION AND CONDUCT OF THE MODERN SOCCER GAME

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Abstract: *Video analysis in soccer has evolved significantly in the last decades. In the past, soccer teams had to rely on videotapes to analyze and review the game. However, with the advent of digital technology, video analysis tools have become more sophisticated and affordable. Nowadays, soccer teams can use video analysis software to optimize match preparation and game play in real time.*

Key words: *analysis, preparation, modern soccer.*

1. Introduction

As soccer training and training practices develop, technology plays an increasingly prominent role and nowhere is this more evident than in video analysis.

Analysis now plays an essential role in a club's soccer processes, from player scouting and opponent analysis to individual player development, training analysis and, most importantly, post-match analysis.

Video analysis has always been used for improvement purposes, but the high cost of this technology caused only professional teams to be able to access this resource.

Nowadays, even youth teams use camera systems to identify strengths and weaknesses and develop strategies to improve team performance.

Important knowledge can be gained through this process and more and more teams are beginning to realize that the use of video is essential to compete at the highest level.

Even if players don't have the time to watch the entire game, automated video solutions like "Trace" make it easy for them and coaches to get personalized instants and commentary after each game.

There are plenty of reasons behind this rise in popularity among teams in almost all sports; from skill development to

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communication and beyond, the key benefits of video analysis include:

- Faster player development;
- Objective performance measurement;
- Immediate feedback;
- Better collaboration with staff;
- Trackable progress.

About 80% of our learning is achieved visually, and this is especially applicable for young athletes who have grown up as social media consumers and have shorter attention spans.

Video analysis makes it easy for coaches and players to see what's right and wrong about athletes' techniques and quickly make adjustments. A video also allows players to review their own performance after each game and quickly understand how to prioritize their training and elevate their performance level.

In modern soccer, analysis and attention to detail, both in terms of collective and individual development, have become a necessity for a coach aiming for success at the highest level.

2. The problems

Video analysis is a powerful tool used in modern soccer, providing support both in individual training and in competitions involving the whole team.

Benefits of video analysis in soccer:

1. *Studying opponents*: Video analysis allows coaches and players to understand the opponents' game manner. By watching past matches of the opposing team, strengths and weaknesses, game tactics and patterns can be identified.

2. *Injury prevention and post-traumatic recovery*: Monitoring running and hitting techniques through video analysis can help prevent re-injury or new injury. Identifying muscle weaknesses and gestures that can lead to self-injury can help keep players healthy.

3. *Identifying weaknesses*: A video analysis of an individual player or their own team's performance can reveal weaknesses. Identifying these aspects allows them to adjust and optimize their manifestation in the game.

4. *Soccer player role modeling*: Video analysis can help players to find role models among the best soccer players in the world. By observing as much of these players' manners and styles as possible, techniques and behaviors can be learned to improve individual performance.

Detailed analysis of video footage in soccer is a meticulous and detailed approach on the studies in order to obtain relevant information.

Here are some key aspects of this process:

Game breakdown:

Key moments such as goals, decisive passes, interceptions or individual errors are being identified.

Technical and tactical analysis:

The individual technique of the players is being assessed: how they control the ball, how they execute passes, how they position themselves on the field, etc.

Team tactics are studied: how they move as a unit, how they organize themselves

during offense or defence, how they adapt to changing situations.

Labeling:

Each moment is labeled and organized according to its type (e.g. offence, defence, fixed phases, etc.).

This facilitates quick access to the relevant sections of the recordings.

Statistics and quantitative data:

Statistics such as the number of successful passes, distance traveled by each player, percentage of possession, etc. are made.

This data provides a numerical perspective on team performance.

Individual feedback and improvement:

Players receive detailed feedback based on the video analysis. This may include suggestions for improving technique or tactical decisions.

Coaches use this information to develop personalized training plans.

A detailed video analysis is an essential component of team training and helps to improve on-field performance.

Coaching staff should focus more on video analysis and performance feedback.

These can help in designing training to further maximize the team's strengths and minimize weaknesses in relation to the next opponent.

There are a number of excellent tools for soccer video analysis, each carrying specific features:

SPIIDEO:

An instrument used for analysis, recording and streaming. It is used for both matches and training.

Suitable for both juniors and seniors.

It is a platform that provides advanced solutions for video recording, analysis and live streaming of sports events. Here are some details about SPIIDEO:

Automated video recording:

SPIIDEO uses smart, cloud-connected video cameras to record matches and trainings.

No camera operators are needed and recordings are available instantly.

Video analysis:

SPIIDEO Perform is an easy-to-use solution for video analysis. It is accessible to coaches, analysts and players at all levels in both training and matches.

Live and on-demand streaming:

Spideo Play enables live streaming of sporting events without camera operators. The solution offers unique monetization opportunities for clubs and mass production capacity for media rights holders.

Flexible camcorders:

SPIIDEO offers a wide range of cloud-connected video cameras suitable for different indoor and outdoor sports.

Video analysts use various specialized software to perform their tasks. These include:

I. SPORTSCODE: A popular software in soccer and other sports that allows the analyst **to tag** events in matches. With Sportscodel, relevant **videos** can be created for presentations and analysis.

Sportscodel is video analysis software used in sports, including soccer. It plays a

crucial role in performance analysis and team training.

Relevant facts about SPORTSCODE:

1. **Real-time video capture:** Sportscode allows **real-time video capture** during matches. Images are recorded and can be analyzed immediately for real-time decision making.
2. **Event tagging and coding:** The video analyst can **tag** and **label** key moments in matches. This includes goals, passes, fouls and other important moments. Tags help to quickly organize and search for relevant footage.
3. **Detailed analysis:** Sportscode provides tools for **detailed video analysis**. Coaches and analysts can skip to specific moments, create videos and identify game patterns.
4. **Reporting and sharing:** Analysts can create **customized reports** based on video analysis. These reports can be shared with coaches and players to improve team strategy and performance.
5. **Integration with other tools:** Sportscode can be integrated with other platforms, such as Hudl, to provide a complete video and data analysis experience.

II. WYSCOUT: An online platform providing access to a vast database of matches and players. Analysts can **view** and **analyze** matches, identify patterns and get detailed information about future opponents.

Wyscout is an essential platform for video analysis in soccer. This platform provides access to a **vast library of soccer-related videos and data**. Information about over 600 competitions around the world is collected and stored here.

Coaches, analysts and players can use this resource to make evidence-based decisions.

Features of **Wyscout**:

- a. **Performance videos and statistics:** Wyscout provides videos and detailed data on players, teams and matches.
 - b. **Advanced analysis:** Coaches and analysts can skip to specific moments in matches, compose videos and identify game patterns.
 - c. **Advanced search:** The platform enables quick search for specific moments in matches.
 - d. **Communication and messaging:** Users can communicate and share information through the messaging functionality.
- Drawing tools:** Wyscout provides tools to **draw on the field**, which facilitates tactical analysis.

III. CATAPULT SPORTS: A **performance monitoring** system uses sensors to collect data about players' movements during matches and training sessions. This data can be analyzed to evaluate individual and team performance.

CATAPULT SPORTS is a global company providing **sports technology** solutions for athlete monitoring, recruiting, video analysis and much more. It offers a wide range of products and services to **elite teams in over 128 countries and in over 40 sports**. These include soccer, American football, rugby, ice hockey, cricket, baseball and basketball.

Catapult solutions:

a. Athlete Monitoring: Catapult develops wearable devices that collect data about athletes' performance in real time. This data includes information about movement, physical exertion, heart rate and more.

b. Recruitment and scouting: The platform provides tools to assess athletes' potential and identify new talent.

c. Video analysis: Catapult facilitates a detailed analysis of matches and training sessions through specialized software.

d. Insights and optimization: All collected data is transformed into valuable insights to improve the performance of athletes and teams.

Catapult One

It is an individual device that tracks and analyzes performance in various sports such as soccer, basketball, and tennis. Users can compare their data with other athletes, receive training plans from professional coaches and improve skills with the Catapult One app.

Catapult Sports is a global leader in sports technology, helping athletes and teams perform better.

IV. NAC SPORT: Another video analysis software that enables **on-field drawing and tactical analysis**. The analyst can create diagrams and animations to illustrate strategies and moves.

V. HUDL: A platform for uploading and sharing videos. The analyst can **edit and analyze** matches, and players and coaches can access content for training.

This software is essential to gain a deep understanding of the game and contribute to team success.

R.E., the Romanian national soccer team's video analyst, plays a key role in team development and game strategy.

He studied this field in England and has been the Romanian Soccer Federation's video analyst for four years.

Here's what his job entails and how he helps the "tricolori" get to know their opponents better:

- **Studying the opponents:** Together with the technical staff, R.E. decides how many matches of the next opponent they will analyze, depending on the quality of the opponent, the opponents they play against and the tactical systems used. Studying this data, they analyze three to five matches, from which they create a video presentation for the players. This highlights the opponent's strengths, weaknesses and important players.

- **Live analysis during the match:** R.E. films the matches from the height of the stands and uses specialized software to create live analysis. At half-time, he comes down to the locker room and discusses with the coaches the details he has noticed, identifying episodes that can be improved.

- **Communication with the technical staff:** Throughout the game, R.E. is in contact with one of the assistant coaches on the bench.

Planning video analysis in soccer is an essential process to ensure proper team preparation.

Here are some relevant aspects:

- *Identification of relevant matches:* the video analyst, together with the technical staff, decides how many matches of the next opponent are to be analyzed.

Consideration is given to the quality of the opponent, the opponents they are playing against and the tactical systems used by them.

- *Study of the opponents*: The video analyst examines the matches of future opponents. He identifies the opposing team's strengths and weaknesses, strategies and game patterns. This information is useful for developing an effective approach in future matches.

- *Identifying game patterns*: Through real-time video analysis, one can identify game patterns used by the opponents or one's own team. This can help develop an effective strategy. During the match, the video analyst can observe the game patterns used by the opponents or their own team. This can help the technical staff to make quick decisions and adjust the strategy according to the evolution of the match.

- *Live analysis during the match*: During the match, the video analyst films the match and uses specialized software to analyze events in real time. This allows the technical staff to make quick decisions and adjust strategy as the match unfolds.

- *Tactical adjustments*: If certain issues or opportunities are spotted during the match, the coaching staff can make tactical adjustments based on real-time video analysis. Here are some relevant aspects:

1. **Game system change**: If the opponent has an advantage in a certain area of the field, the technical staff may opt for a change in the field positioning of the players. For example, switching from a 4-4-2 formation to a 4-3-3 formation can provide better coverage in the midfield.

2. **Fronting**: If an adversary is having a strong impact on the game, the coaching staff may decide to front/mark him man-to-man. This can limit the opponent's influence and create a disadvantage for the opposing team.

3. **More aggressive pressing**: If the opposing team has difficulties in building the game, the technical staff may instruct the players to apply a more aggressive pressing. This may force the opponent to make mistakes and lose possession of the ball.

- *Feedback and improvements*: At halftime, the video analyst discusses with coaches the issues observed during the match. These discussions may lead to tactical adjustments or improvements in team performance.

- *Creating video presentations*: Based on match analysis, the video analyst creates video presentations for the players.

These include highlighting key aspects of the opponents, such as specific movements of very important players.

Athlete monitoring in soccer plays a crucial role in performance improvement and strategy development.

It aims to:

1. **Assess performance and fitness**: This helps to identify strengths and areas to be improved.
2. **Identify muscular deficiencies**: This allows the coaching staff to develop specific training plans for each player.
3. **Measuring workload tolerance**: This helps tailor physical training to the individual athlete's needs.
4. **Post-injury rehabilitation**: Monitoring can examine the physical condition after

an injury and help develop specific rehabilitation actions.

match discussions are essential to improve the analysis process.

3. Conclusions

Video analysis is a vital component for improving team performance and developing strategies. Suggested **improvements** for video analysts:

1. *Automate the analysis process*: Instead of relying solely on manual analysis, video analysts can explore machine/automated learning technologies to identify patterns and events automatically. This can reduce the time required for analysis and provide insights faster.
2. *Performance monitoring data integration*: Data collected from wearable devices or monitoring systems can complement video analysis and provide a more complete picture of player performance.
3. *Customize video presentations*: Instead of providing the same video presentations for all players, video analysts can create customized presentations. These should focus on aspects relevant to each individual player, such as their position on the field or their manner of playing.
4. *Context analysis*: Video analysis should not be limited to match events. The video analyst can also analyze the context in which those events took place. For example, score developed, strategies used, etc.
5. *Constant feedback with technical staff*: The video analyst should have constant communication with coaches and players. Real-time feedback and post-

4. Proposals

Video analysis should become a tool that makes it easier for coaches and players to see what is good or bad in the athletic development and to quickly make adjustments.

Through video analysis, teams should be able to identify patterns and directions in the game, evaluate individual performance, improve strategy and tactics, and thus provide individualized training plans for players.

Video analysis should contribute to injury prevention and post-traumatic recovery, ensuring players' health and therefore performance.

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