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South America: Live computer data is driving football forward

By John Sinnott
BBC Sport

Fifa might be dithering in embracing technology, but that hesitation has not been mirrored everywhere.

In recent years, companies like Prozone, which was founded in 1998, and Opta have been providing leading clubs as well as the media with bundles of data and information to analyse the performance of players and teams.

In South America, the search to marry football and technology has been taken a step further, with one Uruguayan company, Kizanaro, even providing coaches with data analysis they can use in half-time team talks.

"Football offers plenty of room for innovation through high-tech products," one of Kizanaro's founders, Krikor Attarian, told BBC Sport.

The Uruguayan and Colombian national teams have begun to use a new Kizanaro system - K-Real Time - which is providing real-time analysis that gives coaches data for their half-time team talks.

"This allows us to support and strengthen our views from the pitch. Sometimes we are surprised; we might think we saw things that weren't exactly like that, or sometimes they might be confirmed," said Uruguay coach Oscar Tabarez.

"Sometimes players might come in angry with the way they played - this allows us to lift their mood: 'Look, we had four times more shots than they had'. Sometimes the player doesn't realise it. So this is some of the objective information this software provides us."

The system is also web-based, so coaches have the possibility to take a look at it from the bench during the second half.

Tabarez is the first to admit Uruguay's success is not based on computer analysis, but he is an advocate of coaches using objective data.

"A coach has the obligation not to rely only on his good eye, but to have tools that allow him to see all the details," said Tabarez.

Five years ago, Attarian was one of four information technology undergraduate students at a Montevideo university that came up with a software system to analyse football matches.

That quartet of students struck lucky when they were introduced to Tabarez, who was to become Kizanaro's first customer.

Tabarez picks up the story.

"My assistant, Jose Herrera, came to me one day and said: 'There's a group of students from ORT University that would like to meet with us'.

"I knew what this type of software was about, I had learned about it while in Europe. But the fact that it was presented by young Uruguayans as the final project of their career was motivating.

COACHES USING KIZANARO SYSTEM



"I proposed a number of changes and they were immediately interested and motivated to go ahead with them."

Not only did Tabarez, who started his second spell in charge of Uruguay in 2006, suggest changes, he took the risk of using the system during Uruguay's 2010 World Cup qualifiers.

Powered by the scoring exploits of the likes of Luis Suarez, Diego Forlan and Edinson Cavani, Uruguay went on to reach the World Cup semi-finals in 2010 before winning the Copa America for a record 15th time a year later.

That success is arguably nothing short of

- Uruguay coach Oscar Tabarez
- Club Olimpia (Paraguay) coach Gerardo Pelusso
- Uruguay Under-17 coach Fabian Coito
- Al-Rayyan (Qatar) coach Diego Aguirre
- Universidad de Chile coach Jorge Sampaoli

remarkable given Uruguay is a country with a population of just over three million.

"We are able to watch all of the game, second by second, and group every action under categories that interest us," said Tabarez, explaining how Kizanaro's K-Studio Professional system works.

The system allows coaches to break down each game into attacking events, defensive events, different type of passes, or moves that involve

more than three passes, the area where this happens, as well as crosses and shots on target.

"Everything can be seen," added Tabarez. "We are also handed a print report that includes some grids which I personally find very useful.

"Everything that happens with the opponent team regarding ball possession, we can read it from there: both vertical and horizontal columns containing the players' names.

SOUTH AMERICAN SUCCESS



"As a result - and in addition to what one has already seen from the match - we interpret which players are most involved and in which area of the pitch."

In Britain, Professor Bill Gerrard believes Kizanaro's close relationship with the coaches that use their system and the company's willingness to take on board their suggestions to create an "open" system is potentially key in opening up new avenues in the application of technology to football.

"When you think about it, only coaches can really evaluate the appropriateness and effectiveness of player actions relative to the team's own game plan," said Gerrard, who works with Saracens and whose work was recently praised by England fly-half Charlie Hodgson.

"I still use data extensively for analysing opponents, but I am now much clearer about its limits and the value of expert coach-produced data.

"The ideal as I see it is to develop a system that can provide both activity data using definitions common across most coaches and then individualise the system to provide effectiveness data for individual coaches based on their own game plan.

- Uruguay: 4th place in 2010 World Cup; 2011 Copa America winners
- Uruguay Under-20 team qualifying for 2012 Olympic Games for the first time since 1928
- Uruguay Under-17 team reaching World Cup final
- Penarol reaching the Copa Libertadores final for first time since 1987
- Nacional and Defensor's successful campaigns in Uruguayan league
- Universidad de Chile doing well in continental and domestic cups as well as in Chilean league.

"The difficulty is that if the two different types of data become merged then the system developed for one coach is not really applicable to other coaches."

Prozone, which has a close relationship with all the Premier League clubs, has yet to receive a request to provide real-time analysis.

"When you process games live there will be a reduction in depth, detail and accuracy," said a spokesman for Prozone, which normally delivers its data analysis to clubs 16 hours after a game.

However Prozone would be willing to provide clubs with a real-time analysis service if they required it.

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