

Rugby World Cup: Hawk-Eye technology ready for big decisions

The difference between success and failure at top level rugby union can come down to a matter of inches or centimetres.

Which is why the organisers of the Rugby World Cup 2015 are using the latest technology to make sure match officials can not only make the correct decisions, but can also do so speedily for the benefit of players and fans. Rugby authorities believe the use of the Hawk-Eye system will ensure that rather than controversy, rugby followers and the 20 participating teams will instead be discussing only the action and excitement over the next six weeks of the tournament.

The system - delivered by Hawk-Eye "Smart Replay" technology - allows the TMO official monitoring the footage in a special video van, to have access to simultaneous and synchronised multiple-angle replays, in real-time and in slow motion. It also allows the official to zoom digitally in on any camera shots they want to see in more detail.

Previously the TMO had to ask the TV producer of the host broadcaster to painstakingly rewind back through various camera shots.

Hawk-Eye is already a well-known name to the sporting public through its tennis line calling technology, and for helping cricket officials adjudicate on lbws as part of that sport's decision review system (DRS). The company has also developed goal-line technology for football. The Basingstoke, UK, firm was acquired by Japanese electronics giant Sony in a multi-million pound deal in 2011.

Steve Carter, managing director of Hawk-Eye Innovations comments, "Previously the TMO had to wait for the TV director to show him footage of various incidents, whereas now he is sitting directly next to our operator so we can give him footage live during the match."

He says different camera angles can be viewed simultaneously to show, for example, whether a player's foot went out of touch before the ball was grounded for a try.

"You need to capture all of the broadcast vision to make sure that it is synchronised in time," he says. "And you need a very slick front end, and skilled operators to make sure the TMO gets the vision he needs to make a decision as quickly as possible, and that we minimise any interruptions to the flow of the game. "

Ian Ritchie, chief executive of English rugby union governing body the RFU, knows better than most the power of technology, having used Hawk-Eye at Wimbledon when he was boss of the All England Lawn Tennis Club.

"I think it was a great success," he says. "It engaged all the people who were watching, to see whether the ball was in or out, created a great deal of interest, and of course accuracy in terms of then determining whether it was or it wasn't in.

"Let's embrace technology, not forgetting that it is an add-on, it is an assistance, it should never overwhelm the game, or overwhelm the sport, but use it when it is judicious and can be helpful, and I think that is what is going to happen during this World Cup."

TMO over-use could push fans away from rugby

Over-zealous use of the television match official (TMO) has been highly criticised, despite new technology promising to speed the game up.

The discontent began during Friday's opener between England and Fiji, a match that saw the clock stopped for a total of 10 minutes and eight seconds as the referee referred six incidents to the TMO for closer inspection. The interruptions robbed the game of momentum and fuelled debate over the negative impact the TMO had on the spectacle, although each time the referee sought clarification the correct decision was made.

On one occasion he awarded a try to Fiji scrum-half Nikola Matawalu and just as the conversion was about to be taken, he spotted on the big screen that the scrum-half had dropped the ball over the line and reversed his judgement.

England head coach Stuart Lancaster said: "I wasn't linked up with the chat between the referee and the TMO, but one thing I will say is that I was quite pleased he did when their scrum half dropped the ball over the line and the try was disallowed. It's part and parcel of the game and I think we want to see accurate decisions, so players just need to get on with it."

But opposition to use of the TMO was evident at the Millennium Stadium on Saturday when loud boos greeted the decision by referee Glen Jackson to refer Ireland's third try, by Jonathan Sexton, in their 50-7 rout of Canada. The correct decision was made swiftly, but Jackson's failure to make a routine call displeased the crowd.

Schmidt broadly welcomes TMO intervention, but retains some misgivings.

"I think you want to get the right decision so it's great the TMO is available for that," Ireland coach, Joe Schmidt said. "Someone told me that the first half of the England game lasted 53 minutes and I'm not sure that's what we're looking for. For foul play and deciding tries it's proven its worth, but hopefully games will survive on their own merits and it won't need to be used so often.

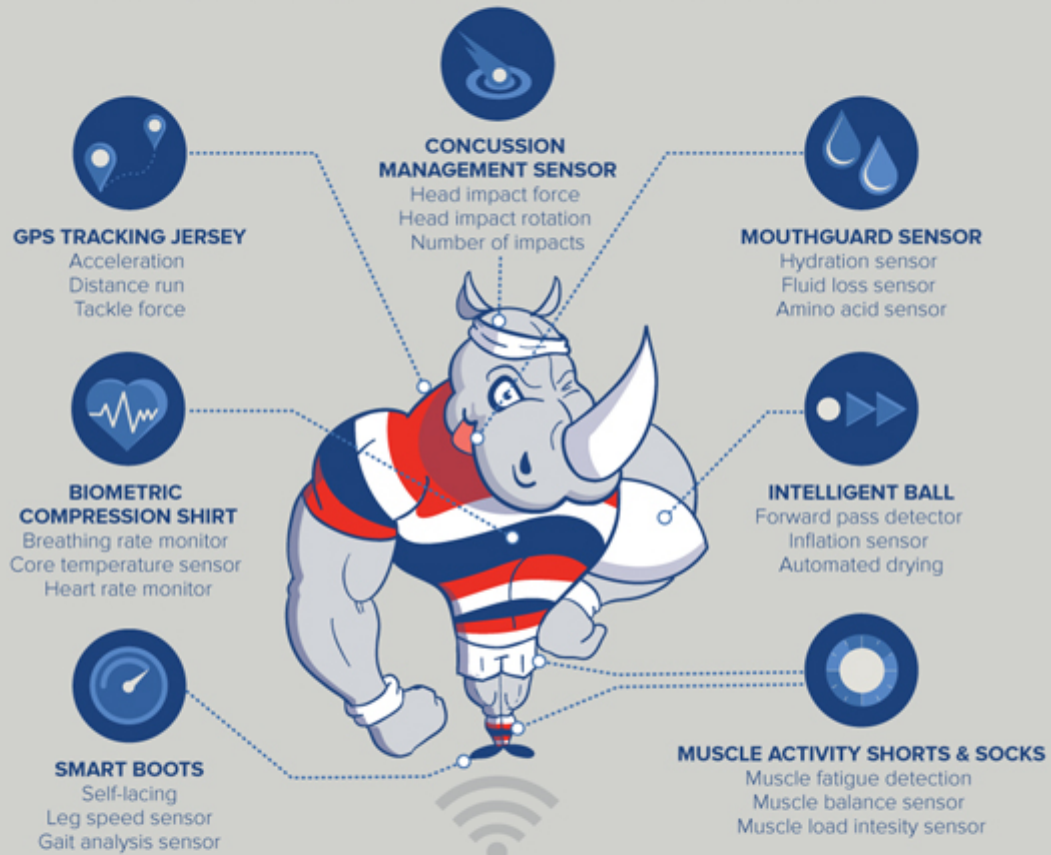
"And hopefully the game will keep going as well because there's nothing worse than players having long, disruptive periods. Those periods mean they tend to slow down a bit, cool down a bit and it makes them more susceptible to soft tissue injuries."

There was no technological party pooping in Brighton, however, as Karne Hesketh's last-gasp try was given instantly to complete the biggest upset in rugby history as South Africa were beaten 34-32 by Japan.

Adapted from: http://www.theargus.co.uk/sport/13772178.TMO_over_use_could_push_fans_away_from_rugby/

WEARABLE TECHNOLOGY FOR RUGBY

Wearable Technology for rugby can provide a 'smart' step towards the rugby player of the future. The latest wave of technological innovations worn close to the body, on the body or even in the body are set to change the game of rugby forever.



Each device transmits detailed information on player performance and equipment in real time to a tablet or smart phone.



Wearable devices can enable the coach to make informed decisions to prevent overload during training and help players to perform to their best during a game.

Together with the introduction of intelligent playing equipment these innovative technologies will bring a new dimension to the game of rugby.



IT in the Rugby World Cup

Name _____ Date _____

Questions and tasks

(also available in a PDF and a flipchart file)

This resource covers many aspects of Functional English / Essential Skills / ICT, including:

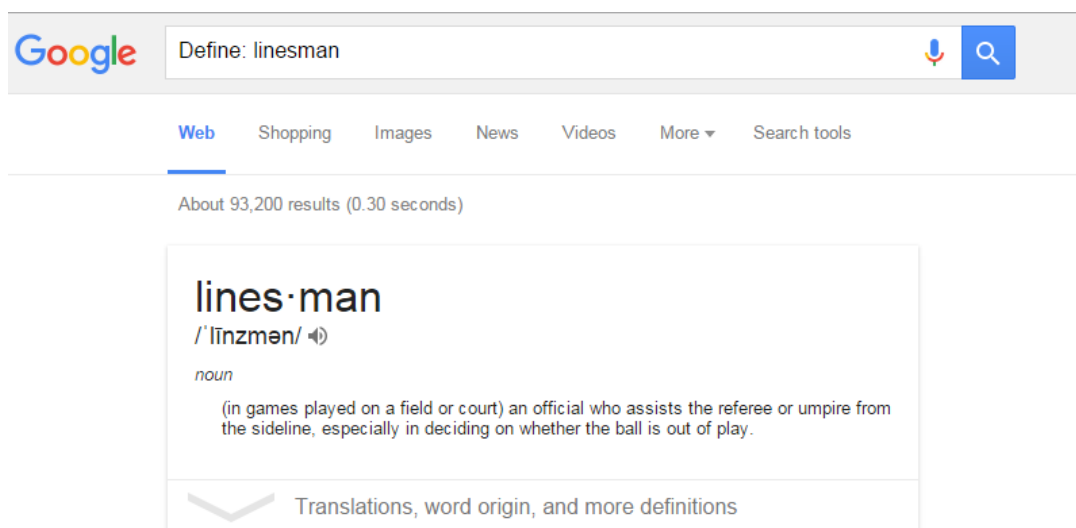
- Presenting information
- Researching
- Opinion or fact?
- Article contents and format
- Writing for an audience
- Verbal discussion

A. Read the two articles and highlight:

- Where people are speaking. How do you know?
- The FACTS
- The OPINIONS

B. Look up any terms you don't know from the text and produce a glossary list.

Remember the **Define:** function in Google!



C. Watch the video



<http://www.bbc.co.uk/news/business-34242861>

Name _____ Date _____

D. Discuss the video and the articles.

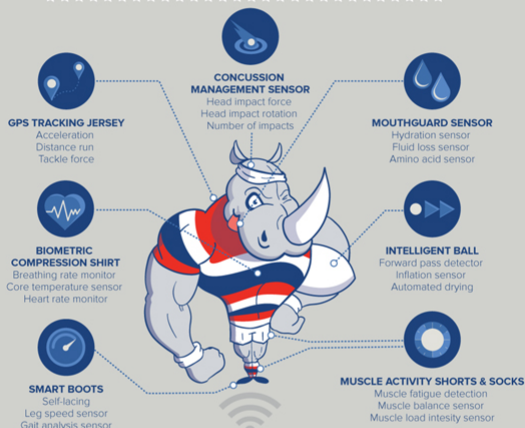
- Did you see any of the matches?
- What do you think of TMO?
Helpful or overused?

Remember your speaking frames:

- I... because...
- That is a good point but ...
- I believe that ...
- On the one hand...

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E. Research:

- What other technology is being used in Rugby?
- What do people think if it?
- Is there any **evidence** for how it helps or doesn't help?

F. Write:

- An article in the same style as you just read.
- Include facts (in your own words) from your research.
- Include quotes showing different opinions.