

Technological Advancement And Their Impact On Cricket

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Abstract

Cricket is a bat-and-ball game played between two teams of eleven players on a field at the centre of which is a 20-metre (22-yard) pitch with a wicket at each end, each comprising two bails balanced on three stumps. The batting side scores runs by striking the ball bowled at the wicket with the bat, while the bowling and fielding side tries to prevent this and dismiss each player (so they are "out").

Introduction

Cricket's origins are uncertain and the earliest definite reference is in south-east England in the middle of the 16th century. It spread globally with the expansion of the British Empire, leading to the first international matches in the second half of the 19th century. The game's governing body is the International Cricket Council (ICC), which has over 100 members, twelve of which are full members who play Test matches. The game's rules are held in a code called the Laws of Cricket which is owned and maintained by Marylebone Cricket Club (MCC) in London. The sport is followed primarily in the Indian subcontinent, Australasia, the United Kingdom, southern Africa and the West Indies, its globalisation occurring during the expansion of the British Empire and remaining popular into the 21st century.[1] Women's cricket, which is organised and played separately, has also achieved international standard. The most successful side playing international cricket is Australia, which has won seven One Day International trophies, including five World Cups, more than any other country and has been the top-rated Test side more than any other country.

Origin of Cricket

Having originated in south-east England, it became the country's national sport in the 18th century and has developed globally in the 19th and 20th centuries. International matches have been played since 1844 and Test cricket began, retrospectively recognised, in 1877. Cricket was probably created during Saxon or Norman times by children living in the Weald, an area of dense woodlands and clearings in south-east England that lies across Kent and Sussex.[1] The first definite reference is dated Monday, 17 January 1597 ("Old Style" Julian date, the year equating to 1598 in the modern calendar).

There have been several speculations about the game's origins including some that it was created in France or Flanders. The earliest of these speculative references is dated Thursday, 10 March 1300 and concerns the future King Edward II playing at "creag and other games" in both Westminster and Newenden. It has been suggested that "creag" was an Olde English word for cricket but expert opinion is that it was an early spelling of "craic", meaning "fun and games in general"

Methodology of Cricket

Playing area

Cricket is a bat-and-ball game played on a cricket field (see image, right) between two teams of eleven players each. The field is usually circular or oval in shape and the edge of the playing area is marked by a boundary, which may be a fence, part of the stands, a rope, a painted line or a combination of these; the boundary must if possible be marked along its entire length.

In the approximate centre of the field is a rectangular pitch (see image, below) on which a wooden target called a wicket is sited at each end; the wickets are placed 22 yards (20 m) apart.[60] The pitch is a flat surface 3 metres (9.8 ft) wide, with very short grass that tends to be worn away as the game progresses (cricket can also be played on artificial surfaces, notably matting). Each wicket is made of three wooden stumps topped by two bails.

Bat and ball

The essence of the sport is that a bowler delivers (i.e., bowls) the ball from his or her end of the pitch towards the batsman who, armed with a bat, is "on strike" at the other end (see next sub-section: Basic gameplay).

The bat is made of wood, usually salix alba (white willow), and has the shape of a blade topped by a cylindrical handle. The blade must not be more than four and one quarter inches (108 mm) wide and the total length of the bat not more than 38 inches

(965 mm). There is no standard for the weight, which is usually between 2 lb 7 oz and 3 lb.

Fielding

Of the eleven fielders, three are in shot in the image above. The other eight are elsewhere on the field, their positions determined on a tactical basis by the captain or the bowler. Fielders often change position between deliveries, again as directed by the **captain or bowler**.

If a fielder is injured or becomes ill during a match, a substitute is allowed to field instead of him, but the substitute cannot bowl or act as a captain, except in the case of concussion substitutes in international cricket. The substitute leaves the field when the injured player is fit to return. The Laws of Cricket were updated in 2017 to allow substitutes to act as wicket-keepers.

Technological Advancement in Cricket

1. Snickometer

Commonly known as Sniko, the technology is used in televising Cricket to graphically analyse sound and video and show the noise frequency to find out whether the ball touched the bat before going to the fielder.

Invented by British computer scientist Allan Plaskett, the Snickometer was introduced in the mid-90's and since then it has become a key technology to find out if the ball touched the bat or not. The Snickometer is frequently used by third umpires to take decisions on a complex catch appeal. The shape of the frequency helps the umpire to find out if the ball touched the bat on the way through to the wicketkeeper.

2. Hot Spot

The Snicko was not considered as accurate enough, hence the Hot Spot was introduced to Cricket. It is an infra-red imaging system used to determine where the ball has struck before going to the fielder. The infra-red image shows a bright spot where contact friction from the ball has elevated the local temperature.

Where referrals to an off-field third umpire are permitted, the technology is used to enhance the on-field umpire's decision-making accuracy. Where referrals are not permitted, the technology is used primarily as an analysis aid for televised coverage.

3. Hawk Eye (UDSC)

This technology is widely used among popular sports like Cricket, Tennis, Soccer, Hurling and more for visually tracking the ball and display a record of its statistical path through movie image. Developed by Dr Paul Hawkins from the UK, the system was originally implemented in 2001 for making the television broadcast more interactive.

The technology works via six or seven powerful cameras, normally positioned on the underside of the stadium roof, which track the ball from different angles. The video from the six cameras is then triangulated and combined to create a three-dimensional representation of the trajectory of the ball. Hawk-Eye is not infallible and is

accurate to within 5mm (0.19-inch) but is generally trusted as an impartial second opinion in Cricket.

4. PitchVision

Developed by miSprot, a UK-based company, the technology has been widely used in the Cricket training system. The PitchVision is designed to be used by the full spectrum of Cricket users to provide **4.Players key performance feedback**.

Priced almost 2/3rd of a bowling machine, the technology helps bowlers to measure and record bowlers pace, line, length, deviation, bounce and foot position on bowling crease ball by ball. The technology is able to show the map of bowler's line and length.

5. Stump Camera

The Stump Camera is a small TV camera stuffed inside a hollow stump. The camera gets aligned vertically the camera view through a small window on the side of the stump via a mirror. These cameras help generate unique view of play for action replays specifically when a batsman gets bowled.

6. Ball Spin RPM/ Rev Counter

This technology is used to show the rotation speed of the ball. It is used when spinners are bowling, to show viewers the idea how much each ball is spinning. The technology is also able to show the RPM or revolution per minute through a counter, demonstrating how fast the ball is spinning after release.

Conclusion

Cricket is a thrill both to play the game and to watch it and its importance is no less than any sporting event. The game also encourages team spirit, fosters discipline, helps build up character and brings out the quality of leadership. It fosters team-spirit.

References

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