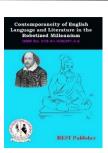


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Technology Used in International Cricket Council

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Abstract: Technology has significantly transformed the landscape of international cricket, enhancing accuracy, fairness, and viewer engagement. The International Cricket Council (ICC) has integrated various technological advancements such as Hawk-Eye, Ultra Edge, Decision Review System (DRS), and LED stumps to ensure precise decision-making and improved game management. This article explores the role of technology in international cricket, its impact on gameplay, and future prospects. The implementation of artificial intelligence (AI) and data analytics further refines performance analysis, helping teams and officials make informed decisions. While these technologies enhance the sport, they also pose challenges in terms of cost and accessibility. This paper provides a comprehensive overview of the technological innovations in the ICC and their contribution to modern-day cricket.

Keywords: International Cricket Council, Technology, Hawk-Eye, Ultra Edge, Decision Review System, AI in Cricket, Data Analytics, LED Stumps, Umpiring Technology.

1. INTRODUCTION

Cricket has evolved from a traditional sport to a technology-driven game, ensuring greater accuracy in decision-making and enhancing the overall experience for players, officials, and spectators. The ICC, as the governing body, has embraced various technological advancements to improve the game's fairness and efficiency. This article delves into the crucial technologies shaping international cricket.

- **1. Hawk-Eye Technology:** Hawk-Eye is a ball-tracking system used to analyze trajectory and predict outcomes such as LBW (Leg before Wicket) decisions. It enhances decision accuracy by providing a visual representation of ball movement, helping umpires make more informed calls.
- **2. Ultra Edge and Snick meter:** Ultra Edge is an advanced sound-wave technology used in the Decision Review System (DRS) to detect ball-to-bat contact. It plays a crucial role in determining faint edges that are difficult to perceive with the naked eye. Snick meter, another similar tool, uses sound analysis to assist in detecting edges.
- **3. Decision Review System (DRS):** The DRS allows teams to challenge umpiring decisions by using technology to review close calls. It incorporates Hawk-Eye, Ultra Edge, and ball-tracking features, ensuring minimal errors in on-field decisions.
- **4. LED Stumps and Bails:** The introduction of LED stumps and bails enhances visibility and accuracy in runout and stumping decisions. These stumps light up instantly upon impact, providing clear evidence for the third umpire.
- **5. AI and Data Analytics in Cricket:** Artificial intelligence (AI) and data analytics play a vital role in performance analysis, helping teams strategize by evaluating player strengths, weaknesses, and game patterns. AI-driven tools assist in injury prevention, workload management, and tactical planning.
- **6. Real-Time Player Tracking and Wearable Technology:** Wearable devices and GPS tracking systems provide real-time insights into player fitness and performance. These technologies help coaches monitor workload and optimize training regimes.
- **7. Spider am and Broadcasting Innovations:** Spider am technology offers dynamic aerial views, enhancing the viewer experience by capturing stunning angles and in-depth game analysis. High-definition (HD) cameras and slow-motion replays provide better scrutiny of game-changing moments.
- **8. Challenges and Future Prospects:** Despite its advantages, cricket technology faces challenges such as high implementation costs, dependency on infrastructure, and occasional technical failures. However, with continuous

advancements in AI, virtual reality (VR), and augmented reality (AR), the future of cricket technology promises even greater innovations, further transforming the sport.

2. CONCLUSION

The ICC's adoption of cutting-edge technology has revolutionized international cricket, ensuring fair play and enhancing engagement. As the sport continues to evolve, embracing emerging technologies will be crucial in maintaining cricket's global appeal and credibility. Future innovations will likely refine decision-making processes and provide deeper analytical insights, shaping cricket into an even more strategic and immersive game.

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