Instant Replay

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Instant Replay in the MLB

- First implemented in 2008
  - Fan Interference (Home runs)
  - Fair/Foul Balls
  - Balls Leaving the Playing Field
- New System Implemented League-Wide in 2015
  - Managers get 1 Challenge to Start Each Game
  - 2 in Postseason
  - Have to Declare Challenge Within 30 Seconds
- Challenge a Variety of Plays
  - Force Plays
  - Catches
  - Tags

Reasons to Use Replay
Effects of Replay (MLB)

- Helps reverse bad calls
- Increases time of game
  - Growing issue/hot topic
  - Games already “too long”
  - Many reviewable calls
  - Change pace of game
  - Changes momentum
  - Can “string together” reviews
- Some calls subjective
  - Catcher blocking plate
  - Fan interference
  - Running out of baseline
Instant Replay in the NFL

- Long reviews of scoring plays, turnovers, challenged plays
- Referees and officials in NFL office review plays
- Effects depend on the play
- Controversial rules ➔ Controversial calls ➔ Controversial results
- Clear rules ➔ Straightforward calls ➔ Integrity of game
Benefits in NFL

- Better officiating, accountability
- Important reviews available
- Improved TV product
Should the NFL Remove Instant Replay?

- Chance to swing momentum in drive/game/season
- Time for coaches to gameplan
- Integrity of the game compromised?
Benefits in the NBA

- The right calls will be made
- Holds players to a higher standard of play
- Extra air time for networks to produce ad revenue
- Players and Coaches use film to gameplan
- Replay has accentuated iconic plays

Replay Hurting the culture of the NBA?

**Negatives Effects of Replay**

- Can stop gameplay for minutes
- Missed calls still occur often
- Most important calls not reviewed
  - Players vs. Refs
  - Media aspect
Late game calls by officials point out the adverse effects of instant replay.

https://cdn.vox-cdn.com/uploads/chorus_asset/file/9928083/leborn.0_1.gif
How Instant Replay has been used in Soccer

- VAR was conceived by the Referee 2.0 project in the early 2010’s
- Started mock trials in 2012-13 season of the Eredivisie
- FIFA president Sepp Blatter was strongly against the use of VAR, but was forced out due to a corruption scandal in 2015
- His successor was more open to the idea
- First live trial began in 2016
- The following month, VAR was being used in international friendlies
- First major international use was in the 2017 FIFA Confederations Cup
Benefits in Soccer

- Ensures the fairness of the game and the integrity of the results.
- Raises the quality of refereeing and audience acceptance of official decisions.
Introducing Referee 2.0

Video Assistant Referee

- Provides additional refereeing from the perspective of a multitude of fixed cameras in real time.

Goal Line Technology

- Controversial goals not based on perspective of the referee but whether the football passed the goal line.
Inside the VAR Room

- 4 Replay operators
  - 1 Video Assistant Referee
  - 3 Assistant Video Assistant Referees

- Does not make decisions

- Video Assistant Referees are selected by FIFA

- Only four types of calls can be reviewed
Intel® True View

- 360 replay technology
- 38 Cameras around the stadium.
- Uses technology that captures volumetric data (height, width, depth) using voxels, (3D pixels).
- Processes terabytes of data in seconds.

https://www.youtube.com/watch?v=YkDDyXYtWto
Goal Line Technology

Two Technologies:

**Hawk-Eye**
- Network of high speed video cameras.
- Tracks ball's current position.
- Can predict its future position.

**Goalref**
- Electronic circuit embedded in the ball.
- Electromagnetic field in mouth of goal is disturbed as the ball crosses the plane.
Arguments Against VAR in Soccer

- Stops the flow of the game
- Does not correct enough calls
- Lack of use
- Changes the nature of the game
Conclusion

- Instant replay good & bad
  - Can help make better calls
  - Takes away time from the game
  - Some calls are just too close
    - No definitive answer
- Instant replay helps no matter what
- Replay impacts vary based on sport
  - Better results for certain sports
Citations

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