

WHAT IS CLAIMED IS:

1. An anti-cheating hybrid game, comprising:
 - a gambling game comprising a real world engine constructed to provide a randomly generated payout of real world credits for a wager of an amount of real world credits in the gambling game;
 - an entertainment software engine constructed to execute an entertainment game providing outcomes upon a player's skillful execution of the entertainment game to earn an amount of game world credits;
 - a game world engine constructed to manage the entertainment software engine and communicate gameplay gambling event occurrences based upon the player's skillful execution of the entertainment game that trigger the wager of the amount of real world credits and the randomly generated payout for the gambling game to the gambling game; and
 - wherein the game world engine incorporates an anti-cheating module and the anti-cheating module is constructed to:
 - receive player performance information for the player, where the player performance information is indicative of the player's current gameplay performance at the hybrid game and includes the amount of game world credit accrued in the entertainment game of the hybrid game and the amount of real world credit committed in the gambling game of the hybrid game;
 - analyze the player performance information to determine whether cheating is occurring by comparing the player's current gameplay performance as determined by a ratio of the amount of accrued game world credit to the amount of committed real world credit with historical gameplay data to evaluate whether the player's current gameplay performance is beyond the statistical limits of the randomness inherent in the hybrid game; and
 - send a command to penalize the player during play of the hybrid game based upon a determination that cheating has occurred from the analyzed player performance information.
2. The anti-cheating hybrid game of claim 1, wherein the historical gameplay performance information is gameplay data concerning the player's historical performance at the hybrid game over several gameplay sessions.

3. The anti-cheating hybrid game of claim 1, wherein the historical gameplay performance information is gameplay data concerning historical performance of players at the hybrid game over several gameplay sessions.
4. The anti-cheating hybrid game of claim 1, wherein the player performance information is analyzed using an outlier test.
5. The anti-cheating hybrid game of claim 1, wherein the command to penalize the player is a command to suspend a player account of the player determined to be cheating.
6. The anti-cheating hybrid game of claim 1, wherein the command to penalize the player is a command to suspend a player account of the player determined to be cheating.
7. The anti-cheating hybrid game of claim 6, wherein the command to penalize at least one player is determined based upon a value of at least one counter.
8. The anti-cheating hybrid game of claim 1, wherein at least one counter is utilized by the game world engine and the anti-cheating module is constructed to increment the counter upon each instance of cheating.
9. The anti-cheating hybrid game of claim 1, wherein the anti-cheating module is constructed to communicate with the game world engine via a network.
10. A method of operating an anti-cheating hybrid game comprising:
 - executing an entertainment game of the hybrid game, the entertainment game providing outcomes upon a player's skillful execution of the entertainment game to earn an amount of game world credits
 - generating gameplay gambling event occurrences based upon the player's skillful execution of the entertainment game to trigger a wager of an amount of real world credits and a randomly generated payout for a gambling game of the hybrid game;
 - providing the randomly generated payout of real world credits for the wager of the amount of real world credits in the gambling game of the hybrid game;

receiving player performance information for the player, where the player performance information is indicative of the player's current gameplay performance at the hybrid game and includes the amount of game world credit accrued in the entertainment game of the hybrid game and the amount of real world credit committed in the gambling game of the hybrid game;

analyzing the player performance information to determine whether cheating is occurring by comparing the player's current gameplay performance as determined by a ratio of the amount of accrued game world credit to the amount of committed real world credit with historical gameplay data to evaluate whether the player's current gameplay performance is beyond the statistical limits of the randomness inherent in the hybrid game; and

penalizing the player during play of the hybrid game based upon a determination that cheating has occurred from the analyzed player performance information.

10. The method of claim 9, wherein the historical gameplay data is gameplay data concerning at least one player's historical performance at the entertainment game over several gameplay sessions.

11. The method of claim 9, wherein the historical gameplay data is gameplay data concerning historical performance of players at the entertainment game over several gameplay sessions.

12. The method of claim 9, wherein the command to penalize at least one player is a command to suspend a player account of a player determined to be cheating.

13. The method of claim 9, wherein at least one counter is utilized by the game world engine and the anti-cheating module is constructed to increment the counter upon each instance of cheating.

14. The method of claim 13, wherein the command to penalize at least one player is determined based upon a value of at least one counter.

15. The anti-cheating hybrid game of claim 9, wherein the anti-cheating module is constructed to communicate with the game world engine via a network.

16. A machine readable medium containing processor instructions, where execution of the instructions by a processor causes the processor to perform a process of an anti-cheating hybrid game, the process comprising:

executing an entertainment game of the hybrid game, the entertainment game providing outcomes upon a player's skillful execution of the entertainment game to earn an amount of game world credits

generating gameplay gambling event occurrences based upon the player's skillful execution of the entertainment game to trigger a wager of an amount of real world credits and a randomly generated payout for a gambling game of the hybrid game;

providing the randomly generated payout of real world credits for the wager of the amount of real world credits in the gambling game of the hybrid game;

receiving player performance information for the player, where the player performance information is indicative of the player's current gameplay performance at the hybrid game and includes the amount of game world credit accrued in the entertainment game of the hybrid game and the amount of real world credit committed in the gambling game of the hybrid game;

analyzing the player performance information to determine whether cheating is occurring by comparing the player's current gameplay performance as determined by a ratio of the amount of accrued game world credit to the amount of committed real world credit with historical gameplay data to evaluate whether the player's current gameplay performance is beyond the statistical limits of the randomness inherent in the hybrid game; and

penalizing the player during play of the hybrid game based upon a determination that cheating has occurred from the analyzed player performance information.

CLAIMS

1. An anti-cheating hybrid game, comprising:

5 a gambling game comprising a real world engine constructed to provide a randomly generated payout of real world credits for a wager of an amount of real world credits in the gambling game;

an entertainment software engine constructed to execute an entertainment game providing outcomes upon a player's skillful execution of the entertainment game to earn an amount of game world credits;

10 a game world engine constructed to manage the entertainment software engine and communicate gameplay gambling event occurrences based upon the player's skillful execution of the entertainment game that trigger the wager of the amount of real world credits and the randomly generated payout for the gambling game to the gambling game; and

15 in which the game world engine incorporates an anti-cheating module and the anti-cheating module is constructed to:

receive player performance information for the player, where the player performance information is indicative of the player's current gameplay performance at the hybrid game and includes the amount of game world credit accrued in the entertainment game of the hybrid game and the amount of real world credit committed as wagers in the gambling game of the hybrid game;

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analyze the player performance information to determine whether cheating is occurring by comparing the player's current gameplay performance as determined by a ratio of the amount of accrued game world credit to the amount of committed real world credit with historical gameplay data, to evaluate whether the player's current gameplay performance is beyond a statistical limit of randomness inherent in the hybrid game using an outlier test; and

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send a command to penalize the player during play of the hybrid game based upon a determination that cheating has occurred from the analyzed player performance information.

2. An anti-cheating hybrid game according to Claim 1, in which the player performance information is gameplay data concerning the player's historical performance at the hybrid game over several gameplay sessions.
3. An anti-cheating hybrid game according to Claim 1, in which the historical gameplay performance information is gameplay data concerning historical performance of players at the hybrid game over several gameplay sessions.
4. An anti-cheating hybrid game according to Claim 1, in which the outlier test is a Grubb's outlier test.
5. The anti-cheating hybrid game of claim 1, in which the command to penalize the player is a command to suspend a player account of the player determined to be cheating.
6. An anti-cheating hybrid game according to Claim 1, in which the command to penalize at least one player is determined based upon a value of at least one counter that is incremented upon each instance of cheating.
7. An anti-cheating hybrid game according to Claim 1, in which the anti-cheating module is constructed to communicate with the game world engine via a network.
8. A method of operating an anti-cheating hybrid game comprising:
 - executing an entertainment game of the hybrid game, the entertainment game providing outcomes upon a player's skillful execution of the entertainment game to earn an amount of game world credits
 - generating gameplay gambling event occurrences based upon the player's skillful execution of the entertainment game to trigger a wager of an amount of real world credits and a randomly generated payout for a gambling game of the hybrid game;
 - providing the randomly generated payout of real world credits for the wager of the amount of real world credits in the gambling game of the hybrid game;
 - receiving player performance information for the player, where the player performance information is indicative of the player's current gameplay performance at the hybrid game and includes the amount of game world credit accrued in the entertainment game of the hybrid game and the amount of real world credit committed as wagers in the gambling game of the hybrid game;

analyzing the player performance information to determine whether cheating is occurring by comparing the player's current gameplay performance as determined by a ratio of the amount of accrued game world credit to the amount of committed real world credit with historical gameplay data, to evaluate whether the player's current gameplay performance is beyond a statistical limit of randomness inherent in the hybrid game using an outlier test; and

sending a command to penalize at least one player during play of the hybrid game based upon a determination that cheating has occurred from the analyzed player performance information.

9. A method according to Claim 8, in which the player performance information is gameplay data concerning at least one player's historical performance at the entertainment game over several gameplay sessions.

10. A method according to Claim 8, in which the player performance information is gameplay data concerning historical performance of players at the entertainment game over several gameplay sessions.

11. A method according to Claim 8, in which penalizing the player includes suspending a player account of the player determined to be cheating.

12. A method according to Claim 8, in which the command to penalize the at least one player is determined based upon a value of at least one counter that is incremented upon each instance of cheating.

13. A method according to Claim 8, in which an anti-cheating module is utilized for analyzing the player performance information and penalizing the player, and in which the anti-cheating module is constructed to communicate with the anti-cheating hybrid game via a network.

14. A non-transitory machine readable medium storing processor instructions, where execution of the instructions by a processor causes the processor to perform a process of an anti-cheating hybrid game, the process comprising:

executing an entertainment game of the hybrid game, the entertainment game providing outcomes upon a player's skillful execution of the entertainment game to earn an amount of game world credits

generating gameplay gambling event occurrences based upon the player's skillful execution of the entertainment game to trigger a wager of an amount of real world credits and a randomly generated payout for a gambling game of the hybrid game;

5 providing the randomly generated payout of real world credits for the wager of the amount of real world credits in the gambling game of the hybrid game;

receiving player performance information for the player, where the player performance information is indicative of the player's current gameplay performance at the hybrid game and includes the amount of game world credit accrued in the entertainment game of the hybrid game and the amount of real world credit committed as wagers in the gambling game of the hybrid game;

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analyzing the player performance information to determine whether cheating is occurring by comparing the player's current gameplay performance as determined by a ratio of the amount of accrued game world credit to the amount of committed real world credit with historical gameplay data to evaluate whether the player's current gameplay performance is beyond a statistical limit of randomness inherent in the hybrid game using an outlier test; and

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penalizing the player during play of the hybrid game based upon a determination that cheating has occurred from the analyzed player performance information.

15. An anti-cheating hybrid game according to Claim 1, in which the outlier test is a Dixon
20 Q-Test outlier test.

16. A method according to Claim 8, in which the outlier test is a Grubb's outlier test.

17. A method according to Claim 8, in which the outlier test is a Dixon Q-Test outlier test.

18. A non-transitory machine readable medium according to Claim 14, in which the outlier test is a Grubb's outlier test.

25 19. A non-transitory machine readable medium according to Claim 14, in which the outlier test is a Dixon Q-Test outlier test.