CLAIMS

What is claimed is:

1. A system for generating a virtual audience, the system comprising:

a communications interface configured to:

provide a digital feed from a performance area to a remotely located audience; and

receive feedback from the remotely located audience; and

a controller configured to provide an output at the performance area corresponding to at least a portion of the received feedback.

2. The system of Claim 1 wherein the performance area is at least one of:

an arena, a billiard table, and a stage.

3. The system of Claim 1 wherein the remotely located audience comprises a plurality of remotely located audiences each at a geographic location.

4. The system of Claim 3 wherein the communications interface is further configured to:

receive feedback from each of the plurality of remotely located audiences.

5. The system of Claim 4 wherein the controller is further configured to:

aggregate the feedback received by the communications interface from each of the plurality of remotely located audiences.

6. The system of Claim 5 wherein the output provided by the controller at the performance area is based on the aggregated feedback.

7. The system of Claim 1 wherein the feedback is least one of: clapping, stomping, booing, a spoken statement, and text.

8. The system of Claim 1 wherein the communications interface is further configured to:

provide the remotely located audience a listing of feedback options corresponding to the feedback the communications interface is configured to receive.

9. The system of Claim 8 wherein the feedback received by the communications interface comprises at least one feedback on the provided listing of feedback options.

10. The system of Claim 1 wherein:

the communications interface is configured to provide the digital feed to the remotely located audience by connecting to at least one electronic device of at least one member of the remotely located audience.

11. The system of Claim 10 wherein the feedback received by the communications interface comprises a signal representing motion of the electronic device of the at least one member of the remotely located audience.

12. The system of Claim 11 wherein the signal representing motion of the electronic device represents at least one of:

contact between the at least one member of the remotely located audience and the electronic device, and movement of the electronic device.

13. The system of Claim 1 wherein:

the communications interface is configured to receive the feedback in real- time; and

the controller is configured to provide the output at the performance area in real-time.

14. The system of Claim 1 wherein the digital feed from the performance area provided by the communications interface is a broadcast of an event at the performance area.

15. The system of Claim 14 wherein the communications interface is configured to provide the digital feed after a time at which the event occurred.

16. The system of Claim 15 wherein the communications interface is configured to:

receive the feedback after the time at which the event occurred.

17. The system of Claim 15 wherein:

the communications interface is further configured to receive additional feedback after the time at which the event occurred; and

the controller is further configured to aggregate the feedback with the additional feedback.

18. The system of Claim 1 wherein:

the controller is further configured to:

determine an audience output to be provided to a subset of the remotely located audience, with at least one member of the remotely located audience included in the subset

the communications interface is further configured to provide the determined audience output to the subset of the remotely located audience.

19. The system of Claim 18 wherein the audience output determined by the controller includes aggregated feedback that is generated by the controller from feedback received at the communications interface from multiple members of the remotely located audience.

20. The system of Claim 19 wherein the controller is further configured to synthesize the feedback received by the communications interface from the remotely located audience with the aggregated feedback in determining the audience output.

21. The system of Claim 18 wherein the audience output determined by the controller informs at least one member of the remotely located audience of impropriety of the received feedback.

~~22. The system of Claim 18 wherein the audience output includes data metrics regarding at least one of:~~

~~members of the remotely located audience, the performance area, an event at the performance area, and received feedback.~~

~~23. The system of Claim 18 wherein the controller is configured to use feedback from members of the remotely located audience, other than the subset of the remotely located audience, to determine the audience output.~~

~~24. The system of Claim 1 wherein the output provided by the controller at the performance area is enhanced.~~

~~25. The system of Claim 1 wherein the output provided by the controller at the performance area is based on a user selected artificial audience size.~~

~~26. The system of Claim 25 wherein the controller, in providing the output at the performance area, is further configured to utilize the user selected audience size to adjust the received feedback to correspond to the user selected audience size.~~

~~27.~~ The system of Claim 1 wherein the controller is further configured to:

~~provide the output at the performance area based on an event in the performance area.~~

~~28. The system of Claim 27 wherein the controller, in providing the output at the performance area based on an event in the performance area, is configured to delay providing the output as a result of a component of the event in the performance area.~~

~~29. The system of Claim 28 wherein the controller is configured to use a simulation of the event to provide the output at the performance area as a result of a component of the event in the performance area.~~

~~30. The system of Claim 1 wherein the feedback received by the communications interface is from a plurality of members of the remotely located audience and the controller is configured to aggregate the feedback received from the plurality of members of the remotely located audience to provide the output at the performance area.~~

~~31. The system of Claim 30 wherein the controller is configured to utilize frequency a particular feedback type occurs in the aggregated feedback to provide the output at the performance area.~~

~~32. The system of Claim 1 wherein the communications interface is further configured to ban a member of the remotely located audience based on an internet protocol address associated with the banned audience member.~~

~~33. The system of Claim 1 wherein the output provided by the controller at the performance area comprises at least one physical change to the performance area.~~

~~34. The system of Claim 33 wherein the at least one physical change to the performance area is affected through at least one of: a streamer, a fan, confetti, a motor, an actuator, a robot, a light, a fog machine, and a speaker.~~

~~35. The system of Claim 1 wherein the feedback received by the communications interface comprises voice feedback.~~

~~36. The system of Claim 35 wherein the controller is further configured to:~~
~~remove language from the received voice feedback.~~

~~37. The system of Claim 36 wherein the removed language comprises offensive language.~~

~~38. The system of Claim 1 wherein the communications interface is further configured to:~~
~~provide a graphical representation of audience participation to at least one member of the remotely located audience.~~

~~39. The system of Claim 1 wherein the controller is configured to provide the output at the performance area based on a theme selected from a plurality of themes.~~

~~40. The system of Claim 39 wherein the theme is determined by a proportion of members of the remotely located audience.~~

~~41. The system of Claim 1 wherein the communications interface is further configured to provide a custom feed to at least one member of the remotely located audience.~~

~~42. The system of Claim 1 wherein:~~

~~the communications interface is configured to receive feedback from a plurality of members of the remotely located audience; and~~

~~the controller is configured to temporally aggregate the received feedback.~~

~~43. The system of Claim 1 wherein the digital feed provided by the communications interface includes audio.~~

~~44. The system of Claim 1 wherein the output provided by the controller is perceptible at the performance area.~~

~~45. The system of Claim 1 wherein the remotely located audience comprises a plurality of members and the communications interface is configured to provide the digital feed to each member of the remotely located audience.~~

~~46. The system of Claim 1 wherein the remotely located audience comprises a plurality of members and the communications interface is configured to receive feedback from each of the plurality of members of the remotely located audience.~~

~~47. The system of Claim 1 wherein the controller is configured to provide the output via at least one avatar.~~

~~48. The system of Claim 1 wherein the remotely located audience comprises a plurality of audience members and two or more of the plurality of audience members are at a same geographic location.~~

~~49. The system of Claim 1 wherein the feedback received by the communications interface comprises a signal representing motion of an electronic device of at least one member of the remotely located audience.~~

~~50. The system of Claim 18 wherein the controller is configured to determine which members of the remotely located audience receive the audience output.~~

~~51. The system of Claim 1 wherein:~~

~~the communications interface is further configured to receive local feedback from an audience located local to the performance area.~~

~~52. The system of Claim 51 wherein the controller is configured to provide the output at the performance area at a time determined based on when the communications interface receives the local feedback.~~

~~53. The system of Claim 52 wherein the output at the performance area provided by the controller is based on at least one of: a number of remotely located audience members, past feedback, an event type, an event gravity, a current score of an event, a completion percentage of an event, the local feedback, and a likelihood of an event.~~

~~54. The system of Claim 1 further comprising:~~

~~at least one display proximally located to the performance area, the at least one display configured to depict a representation of at least a portion of the remotely located audience.~~

~~55. The system of Claim 54 wherein the representation is at least one digital avatar corresponding to the portion of the remotely located audience.~~

~~56. The system of Claim 55 wherein the at least one display is configured to:~~

~~depict a plurality of digital avatars; and~~

~~highlight one or more of the depicted plurality of avatars based on received feedback associated with the one or more highlighted avatars.~~

~~57. The system of Claim 55 wherein the at least one display is configured to:~~

~~depict a number of digital avatars that is proportional to the number of members in the remotely located audience.~~

~~58. The system of Claim 55 wherein the at least one display is configured to depict the at least one digital avatar at a position selected by a member of the remotely located audience.~~

~~59. The system of Claim 55 wherein the at least one display is configured to depict the at least one digital avatar with a sign.~~

~~60. The system of Claim 55 wherein the at least one display is configured to customize the depicted at least one digital avatar based on input from the remotely located audience.~~

~~61. The system of Claim 55 wherein the at least one display is configured to animate the at least one digital avatar to render the feedback received from the remotely located audience.~~

~~62. The system of Claim 55 wherein the remotely located audience comprises a plurality of members and the at least one display is configured to depict an avatar for each of the plurality of members of the remotely located audience.~~

~~63. The system of Claim 55 further comprising:~~

~~one or more sensors configured to detect one or more events at the performance area.~~

~~64. The system of Claim 63 wherein the one or more sensors include at least one of:~~

~~a camera, a motion detector, a heat camera, an accelerometer, and a microphone.~~

~~65. The system of Claim 63 wherein the at least one display is configured to animate the at least one digital avatar based on the one or more events detected at the performance area by the one or more sensors.~~

~~66. The system of Claim 65 wherein the at least one display is configured to animate head and eye movement of the at least one digital avatar based on the one or more events detected at the performance area by the one or more sensors.~~

~~67. The system of Claim 63 wherein the at least one display is configured to:~~

~~calculate a focal score for each of the one or more events detected by the one or more sensors; and~~

~~animate a selected avatar using a probabilistic determination and the calculated focal score for each of the one or more events.~~

~~68. The system of Claim 67 wherein the at least one display is configured to calculate the focal score for each of the one or more events based on at least one of: event location, event magnitude, sound location, and motion location.~~

~~69. The system of Claim 54 wherein at least a portion of the at least one display is observable from the performance area.~~

~~70. The system of Claim 54 wherein at least a portion of the at least one display is alongside the performance area.~~

~~71. The system of Claim 54 wherein the communications interface is further configured to:~~

~~provide to the remotely located audience an image that corresponds to an avatar that appears, appeared, or will appear on the at least one display.~~

~~72. The system of Claim 54 wherein the at least one display is configured to provide a three-dimensional (3D) rendering of the representation.~~

~~73. The system of Claim 54 wherein the at least one display is configured to provide a virtual presence of the remotely located audience.~~

~~74. The system of Claim 54 wherein the at least one display is provided by a projector.~~

~~75. The system of Claim 1 wherein the digital feed from the performance area is a video feed of the performance area.~~

~~76. The system of Claim 1 wherein the digital feed from the performance area is a video feed of an event at the performance area.~~

~~77. The system of Claim 1 wherein the digital feed from the performance area is an audio feed of the performance area.~~

~~78. The system of Claim 1 wherein the digital feed from the performance area includes biometric data regarding at least one person at the performance area.~~

~~79. The system of Claim 78 wherein the biometric data includes at least one of: heart rate, respiration, and temperature.~~

~~80. The system of Claim 1 wherein:~~

~~the controller is further configured to create a digital rendering of a physical object from the performance area; and~~

~~the communications interface is further configured to provide the created digital rendering to the remotely located audience.~~

~~81. The system of Claim 1 wherein the output at the performance area includes at least one of:~~

~~sound, video, text, motion, scent, and an aggregated and collective rendering of the received feedback.~~

~~82. The system of Claim 1 wherein the controller is further configured to provide a physical avatar corresponding to at least a portion of the remotely located audience.~~

~~83. The system of Claim 1 wherein the controller is further configured to remove one or more inappropriate response from the received feedback.~~

~~84. A method for creating a virtual audience, the method comprising:~~

~~providing a digital feed from a performance area to a remotely located audience;~~

~~receiving feedback from the remotely located audience; and~~

~~providing an output at the performance area corresponding to at least a portion of the received feedback.~~

~~85. The method as in Claim 84 wherein the method further comprises performing the functions of any of the systems of Claims 1 to 83.~~

~~86. A computer implemented method of facilitating remote audience participation, the method comprising:~~

~~receiving a digital feed from a performance area at a device associated with a user;~~ ~~sending feedback to the performance area; and~~

~~receiving output from the performance area corresponding to feedback from a plurality of remotely located audience members.~~

~~87. The method of Claim 86 further comprising:~~

~~enabling communication among a plurality of remotely located audience members.~~

~~88. The method of Claim 86 wherein the feedback sent to the performance area is a signal from an accelerometer coupled to the device.~~

~~89. The method of Claim 86 wherein the feedback sent to the performance area is selected from a feedback listing.~~

~~90. The method of Claim 89 wherein the feedback listing includes at least one of:~~

~~clapping, stomping, booing, a spoken statement, a physical change to the performance area, and text.~~

~~91. The method of Claim 86 further comprising:~~

~~receiving feedback from the performance area regarding a digital avatar depicted in the performance area.~~

~~92. The method of Claim 86 further comprising:~~

~~displaying data related to the performance area in a plurality of panels of a graphical user interface on the device associated with the user.~~

~~93. The method of Claim 92 wherein,~~

~~a first panel depicts the received output from the performance area,~~

~~a second panel depicts the digital feed, and~~

~~a third panel depicts an avatar associated with the user.~~

~~94. The method of Claim 93 wherein the first panel further depicts event scores.~~

~~95. The method of Claim 93 wherein the output from the performance area depicted in the first panel illustrates a plurality of digital avatars corresponding to the plurality of remotely located audience members.~~

~~96. The method of Claim 95 further comprising:~~

~~receiving a notification that the user is being featured;~~

~~sending a user expression in response to the notification; and~~

~~depicting, in the first panel, the avatar associated with the user performing the sent user expression amongst the plurality of digital avatars corresponding to the plurality of remotely located audience members.~~

97. The method of Claim 86 further comprising:

receiving a digital rendering of a physical object from the performance area.

98. A system for generating a virtual audience, the system comprising:

a capture device configured to capture a digital feed from a performance area and communicate the digital feed to a remotely located audience; and

an emitter device configured to provide an output perceptible at the performance area, the output corresponding to feedback received from the remotely located audience.

99. A system for generating a virtual audience, the system comprising:

a communications interface configured to:

provide a digital feed from a performance area to a remotely located audience;

receive feedback from the remotely located audience; and

provide an audience output to at least one member of the remotely located audience.

100. The system of Claim 99 further comprising:

a controller configured to determine the audience output based on the received feedback.

101. The system of Claim 100 wherein the remotely located audience comprises a plurality of members and where the communications interface is further configured to receive feedback from multiple members of the remotely located audience.

102. The system of Claim 101 wherein the controller is further configured to:

aggregate the feedback received from the multiple members of the remotely located audience; and

determine the audience output based on the aggregated feedback.

103. The system of Claim 102 wherein the controller is further configured to temporally aggregate the feedback received from the multiple members of the remotely located audience.

104. A system for generating a virtual audience, the system comprising:

~~a communications interface configured to:~~

~~provide a digital feed from a performance area to an audience; and receive feedback from the audience; and~~

~~a controller configured to provide an output at the performance area corresponding to at least a portion of the received feedback.~~

~~105. The system of Claim 104 wherein the audience includes a remotely located audience and an audience located local to the performance area.~~

~~106. The system of Claim 105 wherein the received feedback includes feedback from both the remotely located audience and the locally located audience.~~

~~107. The system of Claim 106 wherein the controller is configured to provide the output at the performance area at a time determined based on low latency feedback from the received feedback.~~

~~108. The system of Claim 104 wherein the controller is configured to determine the output at the performance area based on low latency feedback from the received feedback.~~

~~109. The system of any of Claims 104, 107, or 108 wherein the controller is further configured to determine the output at the performance area based on at least one of:~~

~~a number of audience members, past feedback, an event type, an event gravity, a current score of an event, a completion percentage of an event, and a likelihood of an event.~~

~~110. A system for generating a virtual audience, the system comprising:~~

~~a communications interface configured to:~~

~~receive feedback related to a performance area from a remotely located audience; and~~

~~receive feedback from an audience located locally to the performance area; and~~

~~a controller configured to provide an output at the performance area corresponding to at least a portion of the received feedback.~~

~~111. The system of Claim 110 wherein the controller is configured to provide the output at the performance area at a time determined based on low latency feedback from among the feedback received from at least one of the remotely located audience and the locally located audience.~~

~~112. The system of Claims 110 or 111 wherein the controller is configured to determine the output at the performance area based on at least one of: a number of audience members, past feedback, an event type, an event gravity, a current score of an event, a completion percentage of an event, and a likelihood of an event.~~

1. A system for generating a virtual audience, the system comprising:

a communications interface configured to:

provide a digital feed from a performance area to a remotely located audience; and

receive feedback from the remotely located audience;

a controller configured to provide an output at the performance area corresponding to at least a portion of the received feedback;

one or more sensors configured to detect one or more events at the performance area; and

at least one display proximally located to the performance area and configured to:

calculate a focal score for at least one of the one or more events detected by the one or more sensors, wherein the focal score for the at least one of the one or more events is based on at least one of an event location, an event magnitude, a sound location, or a motion location;

depict a representation of at least a portion of the remotely located audience, wherein the representation comprises at least one digital avatar corresponding to the portion of the remotely located audience; and

animate a selected one of the at least one digital avatar based on the at least one of the one or more events detected at the performance area by the one or more sensors, a probabilistic determination and the calculated focal score for the at least one of the one or more events, wherein the animation comprises head and eye movement of the selected avatar.

2. The system of Claim 1 wherein the remotely located audience comprises a plurality of remotely located audiences each at a geographic location, and:

the communications interface is further configured to receive feedback from each of the plurality of remotely located audiences; and

the controller is further configured to aggregate the feedback received by the communications interface from each of the plurality of remotely located audiences, wherein the output provided by the controller at the performance area is based on the aggregated feedback.

3. The system of Claim 1 wherein:

the communications interface is configured to provide the digital feed to the remotely located audience by connecting to at least one electronic device of at least one member of the remotely located audience; and

the feedback received by the communications interface comprises a signal representing motion of the electronic device of the at least one member of the remotely located audience, wherein the signal representing motion of the electronic device represents at least one of contact between the at least one member of the remotely located audience and the electronic device, and movement of the electronic device, wherein the contact is at least a clapping gesture between the electronic device and the member.

4. The system of Claim 1 wherein the communications interface is configured to:

provide the digital feed comprising a broadcast of an event at the performance area after a time at which the event occurred;

receive the feedback after the time at which the event occurred; and

receive additional feedback after the time at which the event occurred,

wherein the controller is further configured to aggregate the feedback with the additional feedback.

5. The system of Claim 1 wherein:

the controller is further configured to:

determine an audience output to be provided to a subset of the remotely located audience, with at least one member of the remotely located audience included in the subset, wherein the audience output determined by the controller includes aggregated feedback that is generated by the controller from feedback received at the communications interface from multiple members of the remotely located audience; and

synthesize the feedback received by the communications interface from the remotely located audience with the aggregated feedback in determining the audience output; and

the communications interface is further configured to provide the determined audience output to the subset of the remotely located audience.

6. The system of Claim 5 wherein the audience output determined by the controller informs at least one member of the remotely located audience of impropriety of the received feedback.

7. The system of Claim 1 wherein the controller is further configured to:

provide the output at the performance area based on an event in the performance area, wherein, in providing the output at the performance area based on the event in the performance area, the controller delays providing the output based on a component of the event in the performance area, wherein a simulation of the event is used to provide the output at the performance area as a result of the component of the event in the performance area.

8. The system of Claim 1 wherein the feedback received by the communications interface is from a plurality of members of the remotely located audience and the controller is configured to aggregate the feedback received from the plurality of members of the remotely located audience to provide the output at the performance area, and wherein the controller is configured to utilize frequency a particular feedback type occurs in the aggregated feedback to provide the output at the performance area.

9. The system of Claim 1 wherein the communications interface is further configured to ban a member of the remotely located audience based on an internet protocol address associated with the banned audience member.

10. The system of Claim 1 wherein the output provided by the controller at the performance area comprises at least one physical change to the performance area.

11. The system of Claim 1 wherein the feedback received by the communications interface comprises voice feedback, wherein the controller is further configured to remove language from the received voice feedback, wherein the removed language comprises offensive language.

12. The system of Claim 1 wherein:

the communications interface is further configured to receive local feedback from an audience located local to the performance area; and

the controller is configured to provide the output at the performance area at a time determined based on when the communications interface receives the local feedback, wherein the output at the performance area provided by the controller is based on at least one of a number of remotely located audience members, past feedback, an event type, an event gravity, a current score of an event, a completion percentage of an event, the local feedback, or a likelihood of an event.

13. The system of Claim 1 wherein the at least one display is configured to:

depict a plurality of digital avatars, wherein a number of the plurality of digital avatars is proportional to the number of members in the remotely located audience; and

highlight one or more of the depicted plurality of avatars based on received feedback associated with the one or more highlighted avatars.

14. The system of Claim 1 wherein the at least one display is configured to, one of:

depict the at least one digital avatar at a position selected by a member of the remotely located audience,

depict the at least one digital avatar with a sign,

customize the depicted at least one digital avatar based on input from the remotely located audience, or

animate the at least one digital avatar to render the feedback received from the remotely located audience.

15. The system of Claim 1 wherein the at least one display is configured to provide a three-dimensional (3D) rendering of the representation.

16. The system of Claim 1 wherein the digital feed from the performance area includes biometric data regarding at least one person at the performance area.

17. The system of Claim 1 wherein:

the controller is further configured to create a digital rendering of a physical object from the performance area; and

the communications interface is further configured to provide the created digital rendering to the remotely located audience.

18. A method for creating a virtual audience, the method comprising:

providing a digital feed from a performance area to a remotely located audience;

receiving feedback from the remotely located audience;

detecting one or more events at the performance area;

calculating a focal score for at least one of the one or more events, wherein the focal score for the at least one of the one or more events is based on at least one of an event location, an event magnitude, a sound location, or a motion location;

depicting a representation of at least a portion of the remotely located audience, wherein the representation comprises at least one digital avatar corresponding to the portion of the remotely located audience; and

animating a selected one of the at least one digital avatar based on the at least one of the one or more events detected at the performance area by the one or more sensors, a probabilistic determination and the calculated focal score for the at least one of the one or more events, wherein the animation comprises head and eye movement of the selected avatar.

19. A computer implemented method of facilitating remote audience participation, the method comprising:

receiving a digital feed from a performance area at a device associated with a user;

sending first feedback to the performance area;

receiving output from the performance area corresponding to second feedback from a plurality of remotely located audience members;

receiving third feedback from the performance area regarding a digital avatar depicted in the performance area;

selecting the digital avatar based on the third feedback; and

displaying data related to the performance area in a plurality of panels of a graphical user interface on the device associated with the user, wherein a first panel of the plurality of panels depicts the digital avatar selected based on the third feedback.

20. The method of Claim 19 wherein,

a second panel depicts one of (i) the received output from the performance area, (ii) event scores or (iii) a plurality of digital avatars corresponding to the plurality of remotely located audience members,

a third panel depicts the digital feed, and

a fourth panel depicts an avatar associated with the user.

21. The method of Claim 20 further comprising:

receiving a notification that the user is being featured;

sending a user expression in response to the notification; and

depicting, in the second panel, the avatar associated with the user performing the sent user expression amongst the plurality of digital avatars corresponding to the plurality of remotely located audience members.