

REMOTE GAMING DEVICE OPERATIONS AND VIDEO STREAM SWITCHING FOR LIVE GAMING

CROSS-REFERENCE TO RELATED APPLICATIONS

[0001] The present application claims a right to priority to U.S. Patent Application No. 63/504,466, filed May 26, 2023; U.S. Patent Application No. 63/502,811, filed May 17, 2023; U.S. Patent Application No. 18/390,086, filed December 20, 2023; and U.S. Patent Application No. 18/390,109, filed December 20, 2023, the entireties of each of which are incorporated by reference herein.

TECHNICAL FIELD

[0002] The present disclosure relates generally, but not exclusively, to the field of gaming, particularly live gaming systems.

BACKGROUND INFORMATION

[0003] Casinos offer a variety of games to attract players. Such games may include live table games (e.g., roulette, craps, blackjack, etc.), virtual games, physical machines (e.g., slot machines), individual play stations, stadium-style group stations, and various gameplay combinations. Traditionally, players must physically go to a casino or the gaming location to participate. However, this may not always be possible, and when players are unable to play at a casino, the casino does not receive the business and the player misses out on the gaming experience.

[0004] Although online gaming platforms provide one way for players to remotely participate in casino games and other gaming events, the online experience is very different than in-person and live gaming events at an actual location. Many players enjoy playing at a particular casino or gaming location, or a particular machine, and online gaming platforms cannot provide a comparable experience and familiarity.

[0005] Additionally, players have many game types, options, and platforms available. Casinos and gaming providers must continuously innovate to attract and retain players, maintain profitability, and improve player experience.

SUMMARY

[0006] Disclosed herein are methods, systems, and computer readable storage media that provide video stream switching techniques for live gaming operations. According to various aspects, players may interact with a smartphone or other user device to view a gaming area (e.g., a gaming floor, casino pit, etc.) interact with a gaming machine (e.g., or an individual play-station/gaming-cabinet thereof, etc.), and play live gaming events. A live video stream may provide live gaming floor views and live game views showing respectively the gaming area/floor and the live games conducted on one or more gaming machines (or play stations thereof) at the gaming floor. Remote players may switch between the views (e.g., between cameras arranged at the gaming floor and/or video outputs of the gaming machine) to see, for example, different views of the gaming floor or play stations of various gaming machines. Players may select a gaming-machine/play-station, such as an individual player machine, and operate the gaming-machine/play-station, based on selections at their user device. In some examples, a player may reserve individual gaming machines in advance and/or for exclusive use, thereby preventing other players from operating the machine. From the user device, players may also control camera views, and zoom in and out on a player machine, switch views (e.g., between the gaming-machine/play station and the gaming floor), and zoom in and out, and change views on different areas of the play-station of the gaming machine (e.g., between a display, a control area, a gaming event, etc.).

[0007] In the following, the phrase “gaming floor” is used to generally designate a gaming arena/area at which play stations of one or more gaming machines reside. The phrase “gaming machine” is used herein to designate machines which utilize computerized and/or mechanical technologies to operate game operations of one or more games to be conducted thereby. A gaming machine on a gaming floor is typically also associated with or includes one or more play stations at which a local user may play games operated by the gaming machine. A play station of a gaming machine typically includes one or more “gaming interfaces” enabling the users to operate the game on the gaming machine and/or place bets etc. To this end the “gaming interface” as used herein to designate mechanical and/or electrical controls (such as leavers, pushbuttons, touch screen, mouse/keypad, joy-stick or other controls) by which a user can initiate, and/or control a game on the gaming machine. In play stations of many types of gaming machines, the “gaming interface” also includes a visual display (screen) and/or audio output by which data indicative of the state of the game being played can be communicated (displayed to the user via display and/or audio indicia). Often a play station of

a gaming machine also includes a seat and/or cabinet, and a gaming consol with the gaming interface included thereon. Generally, a gaming machine may be associated with one or more play stations, via which one or more games can be conducted in parallel and/or one after the other, on the gaming machine. Some types of gaming machine may be individual gaming machines at which a game may be played by one player at a time. Some individual gaming machines may be integrated with the play station (e.g., which includes a gaming cabinet and/or player seat with the gaming interface/consol thereof). Alternatively, or additionally, the play station may be physically separate from the gaming machine and the gaming machine may be connected to the play station by wires or wirelessly to allow a game operation thereby. In some types of gaming machines, such as electronic table games, one gaming machine (e.g., which may be embedded in the electronic table) may be associated with a plurality of play stations and facilitate simultaneous multiplayer game plays thereby. In some cases the association between a play station and a gaming machine may not be *a priori* fixed, and/or as far as the play station is suited for operation games of different gaming machines, it may be connected/connectable to any one of the different machines, *a priori* (e.g., by setup of the gaming floor operator), and/or dynamically for example by a player's selection at the game station of which gaming machine to play.

[0008] Remote gaming techniques disclosed herein may provide seamless transitions between live gaming floor views and live game views showing games conducted at a gaming machine or a play station associated therewith. Aspects may enable players to have additional control and customization of their overall gaming experience. For example, players may reserve particular machines/play-stations, such as a frequently used, preferred, or "lucky" machine. The game machines may provide any of a variety of games, including but not limited to slots, roulette, poker, or another, card, dice, or video-based game. Such remote gaming techniques may lead to increased player interest and entertainment, and improved player experiences may result in increased play and profitability.

[0009] In addition, gaming establishments may create a dedicated gaming floor for remote gaming. A set of player machines may be located in a room, such as a casino pit, warehouse, room, or other area, and the player machines may be fully dedicated to remote gaming. In some examples, a player machine may be operable both in-person and remotely.

[0010] In either case, aspects may enable a remote player to reserve the play station of a gaming machine in advance, thereby preventing other players from accessing and operating the gaming machine, and or the play station being reserved. According to some

embodiments, a play station, and/or a gaming machine may be exclusively reserved for a VIP player, high roller, or other player or player account. In such cases, only the player who has reserved the play station may operate the gaming machine thereby remotely and/or in-person. The environment in which the player machine is exclusively reserved, such as a VIP room, may also be configured specifically for the player. The VIP room may be physically or virtually decorated in a manner chosen by the player or chosen for the player based on one or more criteria, such as color(s) preferences, decoration style, cultural preferences, furnishing preferences, historical time periods, etc.

[0011] A reserved machine/play-station may provide a first player a time window to operate the device and play live games. In some examples, the player may have a period of time to begin play before the gaming machine/play-station becomes accessible to another user. In other examples, the period of time may reserve a time window for remote play by the user device. In some instances, if a player does not initiate a game within a first period of time (e.g., one, ten, thirty minutes, etc.), the reservation may expire, and the player machine may become available to other players. In other examples, the reservation may enable exclusive access and operation for a second period of time (e.g., one, two, twelve, twenty-four hours, or more etc.). The player machine may also be exclusively reserved indefinitely for a particular player. A remote player may also be notified when a particular player machine is available for play. Such notifications can include an alert, text, email, call or a communication to the user device.

[0012] The various techniques and examples discussed herein enable gaming establishments to accommodate various player preferences, including but not limited to device and/or machine preferences, a type of game, time of play, and a gaming location. Such techniques may encourage and increase gaming, player entertainment, player satisfaction, and overall profitability. To this end, an embodiment is directed to a method for live gaming. A camera may stream video output to a display associated with a user device. The video output captures a first field of view comprising a gaming area (e.g., casino/gaming floor) with at least one play station (e.g., of gaming machine) therein. The user device receives player input to update the video output to a second field of view, and the second field of view may be a selected region within the first field of view. After determining that the second field of view corresponds to the play station in the gaming area, video output corresponding to a live game at the play station may be streamed from the play station, or from another camera associated therewith, to the display associated with the user device. The user device may then operate the live game based on received user input. According to some examples, the user device may switch from

streaming video output from the camera capturing the first field of view, to streaming video output from the gaming-machine/play-station (e.g., display video output thereof), or from a camera capturing the play-station or part thereof, after a determination that the selected-region/second-field-of-view corresponds to a gaming screen of the play station. In other examples, along with the video output, gameplay control from the play station transfers to the user device.

[0013] Another embodiment may include a camera capturing a gaming area, a play station, and an application operating on a user device. The user device may include at least one of a phone, a personal computer (PC), or a gaming device. The play station may be for example one of several play stations associated with a multiplayer machine, such as an electronic table gaming machine and/or a play station integrated with a gaming machine (e.g., in case of individual gaming machine). An external controller may connect to the user device to perform one or more gameplay operations. The external controller may connect to the user device via a Universal Serial Bus (USB).

[0014] Other embodiments include techniques for streaming live gaming events and providing remote gaming. In an example, video output may be streamed from a camera to a display associated with a user device. The video output may capture a first field of view comprising a live gaming event at a gaming arena/floor, such as a casino. A user device may provide a play amount indicative of a predicted outcome of a game cycle associated with the live gaming event. An action performed by a player or dealer may initiate the game cycle. The outcome of the game cycle may be streamed, in real-time, to the user device, and the play amount may be resolved based on the outcome of the game cycle.

[0015] An embodiment is directed to a method for remote live gaming on a gaming machine (e.g., on a play station thereof). Aspects may stream live video output from a first camera to a display associated with a user device. The live video output may present a *live gaming floor view* showing a casino pit or other gaming arena including play stations of one or more remotely accessible gaming machines. In various examples, a selection from the user device may initiate a game at a gaming-machine/play-station shown in the live gaming floor view. Aspects may switch from streaming the live video output showing the live gaming floor view to streaming *live game view* showing a specific play station (e.g., gaming machine) or part thereof at which a live game is conducted or to be conducted, to the user device. The *live game view* may be captured from a display output of the gaming machine itself, and/or from a camera, being said first camera, or another camera, that is directed or

zoomed to specifically capture at the gaming machine at which the live game is conducted, or a part thereof. Accordingly, once the game is initiated, and the live video stream is switched to show the *live game view*, the gaming machine may be operated based on gaming input received at the user device. According to various embodiments, a gaming-machine/play-station may be reserved in advance, e.g., for exclusive use, by a player (such as a VIP or high roller), or a player account associated with the user device. Such selections and reservations may enable players to reserve and play their preferred machine at a particular time and/or when desired.

[0016] A dedicated gaming area, such as a casino pit, separate room, warehouse, or other facility, may include one or more gaming machines accessible for remote play via the systems and methods discussed herein. In various embodiments, a user device may receive a notification when a gaming-machine or a play station associated therewith, is available for gameplay. The player may have a period of time in which they may begin play before the gaming-machine/play station becomes accessible to another user. In other examples, the period of time may reserve a time window for remote play by the user device.

[0017] Various embodiments further provide switching between a live gaming floor output/view (e.g., showing the gaming area/floor) and a live game output/view, which may be provided from the gaming machine itself or its associated play station (e.g., as video display output thereof) or from a camera suitably arranged/operated, to show the game play of specific gaming machine of interest, at which a remote live game may be initiated. Alternatively, or additionally, in some embodiments live video from a first camera may be changed, switched, zoomed in and out, and otherwise adjusted based on input from the user device. In embodiments, a change in the live video, for example zooming in on a particular play-station shown in the live gaming floor view, may affect transition between streaming of a live gaming floor view to streaming a live game view of that play station to the user's device. The live game view may show the play station or part thereof (e.g., its gaming interface) based on a camera arranged near thereat or for a video output originating from the gaming machine associated therewith. Typically, the live game view shows at least the parts of the gaming interface of the game to be played on the gaming machine, to enable the remote player to operate the gaming-machine for a game play. In some cases, the switching from the live gaming floor view to the live game view, also selects the machine/play-station for remote play by the user and/or initiate a game on the machine. Live gaming floor views

and live game views may occur before, during, or after play on a play station to enhance player experience and customization during remote play.

[0018] To this end it should be noted that the phrases *live gaming floor view* and *live game view* are used herein to designate respectively: a live view of a gaming area/arena, or a casino floor, in which typically one or more play stations reside; and live view of a gaming interface of a play-station/gaming-machine, or a section thereof, such as its visual display and/or controls, by which a game is/can-be played on the gaming machine from remote. Systems and methods disclosed herein may include a camera capturing a gaming area/floor, one or more gaming machines in the gaming area, one or more cameras or other video streaming utilities (e.g., video cards) associated respectively with one or more of the gaming machines and capable of acquiring game-views thereof, and an application operating on a user device. The user device may include at least one of a phone, a personal computer (PC), or a gaming device. The gaming machine may be an electronic table game. An external controller may connect to the user device to perform one or more gameplay operations. The external controller may connect to the user device via a Universal Serial Bus (USB).

[0019] These and other features will be more clearly understood from the following detailed description taken in conjunction with the accompanying drawings and claims. This Summary is provided to introduce a selection of concepts in a simplified form that are further described below in the Detailed Description. This Summary is not intended to identify key features or essential features of the claimed subject matter, nor is it intended to be used to limit the scope of the claimed subject matter.

BRIEF DESCRIPTION OF THE DRAWINGS

[0020] FIG. 1 is a diagrammatic, elevated view of a system in accordance with an embodiment.

[0021] FIG. 2 illustrates an example graphical user interface (“GUI”) displayed by a play station, in accordance with an embodiment.

[0022] FIG. 3 is a diagrammatic, top view of a gaming area/floor in a stadium configuration, in accordance with an embodiment.

[0023] FIG. 4A illustrates an interactive gaming floor video feed, in accordance with an embodiment.

[0024] FIG. 4B illustrates live gaming on a user device, in accordance with an embodiment.

[0025] FIG. 5 is a flowchart for live gaming operations, in accordance with an embodiment.

[0026] FIG. 6 is a diagrammatic, perspective view of an example play station (base) of a gaming machine, in accordance with an embodiment.

[0027] FIG. 7 is perspective view of a gaming machine incorporated with as a topper with a play station including a seat, display, and audio effects components, in accordance with an embodiment.

[0028] FIG. 8A is a diagrammatic, perspective view of an example gaming machine for a dice game, in accordance with an embodiment.

[0029] FIG. 8B is a diagrammatic, perspective view of an example gaming machine for card games, such as baccarat, in accordance with an embodiment.

[0030] FIG. 8C is a diagrammatic, perspective view of an example gaming machine for card games, such as blackjack, in accordance with an embodiment.

[0031] FIG. 8D is a diagrammatic, perspective view of an example gaming machine for roulette games, in accordance with an embodiment.

[0032] FIG. 8E is a perspective view of an example gaming machine with an additional display, in accordance with an embodiment.

[0033] FIG. 9 is a diagrammatic view of a gaming area/floor with player machines, in accordance with an embodiment.

[0034] FIG. 10A is an interactive gaming floor video feed, in accordance with an embodiment.

[0035] FIG. 10B is a player station video feed, in accordance with an embodiment.

[0036] FIG. 10C is a game video feed, in accordance with an embodiment.

[0037] FIG. 11 is a flowchart for live gaming operations, in accordance with an embodiment.

[0038] FIG. 12 is an illustration of an exemplary block diagram representing a general purpose computer system in which aspects of the methods and systems disclosed herein or portions thereof may be incorporated.

DETAILED DESCRIPTION OF EMBODIMENTS

[0039] The present disclosure describes particular embodiments and their detailed construction and operation. The embodiments described herein are set forth by way of illustration only and not limitation. Those skilled in the art will recognize, in light of the

teachings herein, that there may be a range of equivalents to the exemplary embodiments described herein. Most notably, other embodiments are possible, variations can be made to the embodiments described herein, and there may be equivalents to the components, parts, or steps that make up the described embodiments. For the sake of clarity and conciseness, certain aspects of components or steps of certain embodiments are presented without undue detail where such detail would be apparent to those skilled in the art in light of the teachings herein and/or where such detail would obfuscate an understanding of more pertinent aspects of the embodiments.

[0040] Disclosed herein are methods, systems, and computer readable storage media that provide video stream switching techniques for live gaming operations. According to various aspects, players may interact with a smartphone or other user device to view a gaming area, interact with a gaming machine/station in the gaming area presented on the user device, and remotely play live gaming events on the gaming machine/station. A live video stream may provide live action gaming floor views and/or game views. Players may select a gaming machine, such as a play station, or participate in a live game, based on selections at the device. In some examples, a player presented with a live gaming floor view may select a particular gaming station appearing therein, for example by zoom in on the particular gaming station (e.g., such that, its screen substantially fills the view of the player device), or by other ways (e.g., clicking on the particular gaming station presented in the gaming floor view). Once a particular gaming station is selected, the video streamed to the user device may switch from showing the live gaming floor view to show a live game view of the particular selected gaming station on the player's screen.

[0041] Such techniques may provide seamless transitions between live gaming floor views and live game views. Aspects enable players to have additional control and customization of their overall gaming experience gaming. This may lead to increased player interest and entertainment during the gaming, and improved player experiences can result in increased play and profitability.

[0042] Figure 1 illustrates a live gaming system 100 in accordance with various aspects of the present disclosure. As shown by Figure 1, the live gaming system 100 may be, for example, an automated roulette system including a roulette machine (gaming machine) 110, a central display 120, and a plurality of play stations 130 of the roulette gaming machine 110. While six play stations 130 are illustrated in the embodiment depicted by Figure 1, one

skilled in the art will recognize that live gaming system 100 may include a single play station or any number of play stations.

[0043] For example, the live gaming system 100 may include one play station, two play stations, ten play stations, and so on. In an embodiment, the live gaming system 100 may not include any play stations 130. For example, live gaming system 100 may be servicing one or more remote clients or user devices not physically proximate to the live gaming system 100. That is, roulette machine 110 of live gaming system 100 may be an unattended live table game of chance providing game cycle results to one or more play stations physically remote from roulette machine 110. In an embodiment, the live gaming system 100 may be servicing a combination of local play stations (e.g., play stations 130) and remote play stations. And, while a roulette machine is illustrated, any type of electronic gaming machine may be utilized, including slot machines, dice systems for craps or sic bo and card systems for poker, blackjack, baccarat, pai gow poker, etc.

[0044] In an embodiment, the live gaming system 100 is located at a first geographic location and is providing game cycle results to remote clients physically located at one or more remote geographic locations that are not physically proximate to the first geographic location. For example, the live gaming system 100 may be located in a warehouse and provide game cycle results to remote clients located in a casino a few miles away from the warehouse, or at home, or while moving about. As another example, the live gaming system 100 may be located in a first casino and provide game cycle results to remote clients located in a second casino or gaming establishment or elsewhere. The first casino and the second casino or gaming establishment may be located in a different city, state, country, etc.

[0045] Roulette machine 110 is configured to operate unattended live roulette games in which a physical roulette ball is launched into an angled annular track encircling a roulette wheel. In an embodiment, roulette machine 110 may be configured to operate any known live table game of chance. Each live roulette game operated by roulette machine 110 is composed of a game cycle. The game cycle of the live roulette game begins as a roulette ball is positioned to be launched into the annular track. The roulette ball is launched into the annular track and rotates around the annular track a plurality of times. In an embodiment, the roulette ball is rotated around the annular track in a first direction and the roulette wheel is spinning about a central axis in a second direction opposing the first direction. Friction

between the roulette ball and the annular track reduces a momentum of the roulette ball until gravity causes the roulette ball to exit the annular track.

[0046] Upon exiting the annular track, the roulette ball follows a path towards the center of the roulette wheel along a downward slope intervening between the annular track and the roulette wheel. As the roulette ball follows the path towards the center of the roulette wheel, the roulette ball may interact with one or more ball stops positioned about the downward slope. When the roulette ball encounters the roulette wheel, the roulette ball bounces a plurality of times and then settles into one of a plurality of ball slots positioned around an outer circumference of the roulette wheel. The game cycle concludes as the roulette ball settles in one of the plurality of ball slots. A game cycle outcome is determined based on a number and possibly also a color corresponding to the particular ball slot in which the roulette ball settled.

[0047] Each live roulette game operated by roulette machine 110 is also composed of a betting window associated with the game cycle. The betting window includes a bet open time and a bet close time. The bet open time represents a point in time in which the betting window transitions from a closed state to an open state. After the bet open time, the betting window is in the open state and a player is allowed to place one or more bets on the associated game cycle. In an embodiment, the player is allowed to place one or more side bets on at least one additional game of chance when the betting window is in the open state.

[0048] The bet close time represents a point in time in which the betting window transitions from an open state to a closed state. After the bet close time, the betting window is in the closed state and the player is no longer allowed to place bets on the associated game cycle. In an embodiment, the bet close time precedes a time that the roulette ball settles in one of the plurality of ball slots. In an embodiment, the bet close time precedes a time that the roulette ball exits the annular track. In an embodiment, the bet close time is adjustable based on an inertial value associated with the roulette ball.

[0049] In operation, the electronic gaming machines, including roulette machine 110, utilize one or more random number generators to control various mechanical aspects of the game play, including live roulette games. The one or more random number generators are used to increase a randomization of events composing the games. Increasing the randomization of events composing the games reduces a likelihood that game cycle results are predictable. For example, random number generators may dictate a velocity that a roulette ball is launched into the angled annular track by the roulette machine 110, a number

of times that a roulette ball rotates around the angular track, a direction the roulette ball spins while rotating around the angular track, a timing of various events composing the live roulette games, and the like.

[0050] Central display 120 is configured to present players and other guests of the casino or other gaming establishment with information associated with the live roulette games operated by roulette machine 110. Such information may be presented in a visual format, an auditory format, or a combination thereof. The information presented by central display 120 may include information regarding individual results of previous game cycles, a state of a current betting window associated with roulette machine 110, statistics about previous games cycles, an operating condition of roulette machine 110, a progressive jackpot associated with roulette machine 110, and the like. In an embodiment, central display 120 is further configured to present players and other guests of the casino or other gaming establishment with advertising media.

[0051] Each play station among the plurality of play stations 130 is generally configured to enable a player to participate in the live roulette games operated by roulette machine 110. In an embodiment, each play station among the plurality of play stations 130 is further configured to enable the player to participate in at least one additional game of chance. In an embodiment, the at least one game of chance is operated by a gaming device other than roulette machine 110. For example, a play station 130 may enable the player to fund a credit balance for placing bets, place bets on games of chance (e.g., the live roulette game operated by roulette machine 110), receive winnings associated with bets placed on games of chance, and the like. In an embodiment, a play station may enable the player to interact with an object associated with a game of chance. Examples of such objects include dice, a ball, a wheel, and the like.

[0052] As best seen in Figure 2, play station 130 may present a graphical user interface ("GUI") 200 that enables a player to participate in the live roulette games operated by roulette machine 110. For example, GUI 200 may display account information 210 to a player that represents a maximum credit balance that is available to the player for playing on the live roulette games. In an embodiment, a player may insert currency, tickets, tokens, and the like into play station 130 in order to increase the maximum credit balance. In an embodiment, a player may electronically transfer funds from another account using play station 130 in order to increase the maximum credit balance.

[0053] GUI 200 may also display an electronic representation of a felt betting area 220 (or layout) for live roulette games operated by roulette machine 110 or some other electronic representation for any other type of game. The player may play an amount on the live roulette games by placing one or more virtual chips 230 onto the felt betting area 220. For example, the player may place virtual chips 230 onto an area of felt betting area 220 that identifies a particular ball slot in which the player believes a roulette ball will come to rest within a particular game cycle. As another example, the player may place virtual chips 230 onto an area of felt betting area 220 that identifies a particular range of ball slots in which the player believes a roulette ball will come to rest. The player may also place virtual chips 230 onto felt betting area 220 to bet that during a particular game cycle a roulette ball will come to rest in a ball slot associated with a particular color (e.g., red or black). As another example, the player may also place virtual chips 230 onto felt betting area 220 to bet that a roulette ball will come to rest in a ball slot associated with an odd or even number.

[0054] A play amount update area 240 of GUI 200 may also present information regarding a current play amount set by the player on the live roulette games operated by roulette machine 110. Information regarding a payout amount won by the player through previous bets may also be presented to the player in play amount update area 240. In an embodiment, play amount update area 240 may also present the player with information regarding an aggregate amount bet and/or won in a current session. In an embodiment, play amount update area 240 may also present the player with information regarding an aggregate amount played and/or won within a predetermined period of time (e.g., hour, day, month, year, lifetime, etc.).

[0055] GUI 200 may also present a status update area 250 that provides the player with information about a current game cycle of the live roulette games operated by roulette machine 110. For example, status update area 250 may inform the player that a betting window associated with the current game cycle is in an open state. The betting window is in the open state between a bet open time and a bet close time. As long as the betting window remains in the open state, the player is free to play the current game cycle of the live roulette games. The betting window associated with the current game cycle transitions from the open state to a closed state when the bet close time is reached. Status update area 250 may inform the player that a betting window associated with the current game cycle is in the closed state.

[0056] A historical data area 260 of GUI 200 may provide the player with information about results from previous game cycles of the live roulette games. For example,

historical data area 260 may display a sequence of individual results from the previous game cycles. As another example, historical data area 260 may display statistical information about the previous game cycles. The statistical information may include a percentage of a predetermined number of previous game cycles in which the roulette ball came to rest in a particular color, a ball slot associated with an odd number, a particular range of ball slots, and the like.

[0057] Figure 3 illustrates a live table gaming set up in gaming area 300 arranged in a stadium configuration. While live gaming table 310, being the gaming machine in this example, illustrates a craps table, the live gaming table may provide a platform for a variety of in-person and remote betting and casino games, including but not limited to craps, roulette, blackjack, as well as a variety of slot machines that may be played live, i.e., physically played in a physical environment while play is controlled remotely by a player. The live table game may be a multiplayer machine incorporated with one or more play stations 340, and/or with any of the gaming examples discussed herein regarding Figures 1 and 2. One or more cameras 360 may provide video output of the gaming area 300 or the gaming machine 310. The gaming area 300 may include any or all of the live gaming table 310 and the play stations 340. As discussed herein, the video output may be streamed to a player device, such as a remote player device or play station. In some examples, input at the player device may adjust the camera's video, for example, causing a closer view or zoomed in view of a particular play station 340, the live gaming table 310, a machine, or other object within the gaming area 300, or adjust the cameras' fields of view, angle or which camera is streaming video output.

[0058] Various aspects may include at least one image sensor. The at least one image sensor 370 is configured to capture image data associated with particular game cycles of the games played at a play station 340. Image sensor may provide the captured image data to a controller associated with the camera 360 as a video stream, a sequence of individual image frames, raw image data, and the like. In an embodiment, a controller (in the form of a computer system, see e.g., Figure 6) associated with the play station 340 and/or user device may configure the image sensor by specifying a frame-rate, a resolution, a color value, a video stream encoding format, a subset of the image sensor's available pixels to activate and/or deactivate, and the like.

[0059] In some examples, the camera 360 may include an image sensor configured to capture image data on a continuous basis. For example, image data captured by image sensor may provide a live video feed of the live games operated at gaming table 310 or on

other machines. In an embodiment, the camera may capture image data for a predefined period of time, such as a particular game cycle. For example, such predefined periods may be associated with a dice roll, roulette ball launch, a roulette ball landing result, a slot roll, a betting window associated with a particular game, or another event occurring at gaming table 310.

[0060] In an embodiment, the image sensor is configured to capture image data associated with a particular area of the gaming table 310 or machine. For example, if a roulette wheel were located at the gaming table area, the particular area may include a launch point, an arc portion of annular track, a predefined reference point of roulette wheel, a table stop position of roulette wheel, and the like.

[0061] In one example, the live gaming table 310 is a typical craps table on which a layout is displayed, and on which dice can be rolled by a shooter 302. A single dealer 304, called a “croupier,” may be positioned at an end of the table opposite the shooter. The dealer may call a player to step up to the table 310 and roll the dice. Once a player steps up to the table 310 to become the shooter, the croupier may walk over and place five dice in a dice area 306 on the table near the shooter 302. Alternatively, the croupier may act as a stickman to control the dice. For example, the croupier may use a long stick 320 to push five dice into the dice area 306. Once the shooter 302 has selected two dice to shoot, the remaining three dice are removed.

[0062] According to various embodiments, the gameplay occurring on the table 310 initiates a gaming cycle, such as a round of play, and the gameplay may be reflected on a play station 340, a player device, or both. An action taken by a live player or dealer may initiate a gaming cycle on which remote and/or local players play. In a craps example, a shooter 302 may initiate the gaming cycle when the dice are thrown on table 310, and the outcome of the gaming cycle corresponds to the dice roll outcome. The gaming cycle outcome may be automatically determined, for example using a dice recognition system. In other examples, the dealer 304 may determine and record the gaming cycle outcome.

[0063] A screen 322 of a play station or player device may reflect various aspects of gameplay and/or results from the live game happening on table 310. A local player 324 may interact with the gaming machine/table 310 via local player device (gaming station) 340, and place bets based on the live gameplay, or otherwise provide control input. In like manner, a remote player (not specifically illustrated in the figure) having remote player device (i.e., a user’s device such as the player’s smart phone) connected to the system, may be displayed

with a game view of a game cycle at the gaming machine/table 310 and may interact with the gaming machine/table 310 via its player device, to remotely place bets based on the live gameplay or otherwise provide control input for the game.

[0064] In some examples, the screen 322 on a local player device 340 and/or on the remote player device (not specifically shown) is an interactive touch screen, and may provide one or more gaming displays. The gaming displays may be associated with the live gaming table 310. The screen 322 or player device may also provide gaming information separate from the live gameplay at table 310.

[0065] To this end, gaming events occurring at gaming table 310 may be live streamed to one or more remote player devices, and remote players can play on the gaming event, similar to local players playing in person or on a play station. Remote players may play, for example, on various actions and/or outcomes occurring at the gaming table 310. In a dice game, such as craps or sic-bo, for example, remote players may bet on a predicted outcome of a dice roll, a combination of rolls, or any other aspect related to the dice game. In a roulette game using one, two, or more roulette wheels, players may bet on a predicted outcome of a wheel spin, or any of a combination of wheel spins and sequences. In a card game, such as poker or blackjack, players may bet on a card draw, a final hand, a round of play, or any other aspect related to the card game. In addition to dice games, roulette games, and card games, other types of games may be applicable, including but not limited to games requiring a live player and/or dealer.

[0066] In some examples, an application, web-based platform, or other interactive user interface provides a gaming interface for remote users to enter bets and participate in the gaming event. In other examples, the gaming interface may concurrently provide a live video stream of the gaming event, and an area to place bets. The interactive user interface may be customizable, thereby enabling remote players to personalize their remote gameplay experience.

[0067] In some embodiments, the live stream may be provided via camera 360, and remote players may adjust their field of view. For example, remote players may switch between two or more cameras within the gaming location, toggle between different views of the gaming area 300, zoom in, zoom out, and/or adjust an area of focus. In another example, a user, via the user device, may change the field of view of the video output to focus on a particular area of the live gaming event. The field of view may also be changed to focus and/or zoom in on a region of the gaming area associated with a play station.

[0068] As described herein, one or more play stations at the gaming area may be associated with the live gaming event and provide a gaming interface for local players to bet and/or participate the live gaming event. Remote players may also interact with such play stations through selections at the user device. For example, a gaming floor view showing the live gaming event may be displayed on a screen of remote player's device. By zooming in on the gaming floor view, or otherwise selecting a particular play station 322 presented therein, the system may switch from streaming the gaming floor view to the display of the remote player's device, to streaming a game view showing the gaming interface of the play station. The game view showing the gaming interface may be for example grabbed from an output (e.g., display output) of the gaming machine/table 310 or of the particular play station 322; or acquired by a camera (not specifically shown) arranged to capture the particular play station 322. In an example, embodiments may determine that the field of view at the user device corresponds to a play station or part thereof (e.g., its gaming interface), and in response, stream video output from the play station to the user device.

[0069] Although a stadium configuration is illustrated, any of a plurality of gaming configuration and play station configurations may apply and utilize various features and embodiments discussed herein. Such techniques allow remote players to participate in live gaming events and choose a preferred play station, as if the player were playing at the gaming location. As such, both local and remote players may bet, watch, and participate in the same live gaming event. These techniques improve player accessibility and enable greater participation and potential profits than local or remote gaming alone.

[0070] Figures 4A and 4B illustrate interactive gaming and video stream switching techniques occurring at a remote player device 400. In Figure 4A the player device may display a gaming floor view 420 associated with video of the gaming area 300 captured by at least one camera 360 or image sensor. Figure 4B illustrates an interactive game view 430 which may be streamed following a user selection 410 of a gaming machine, or gaming station thereof at which the user wishes to play. While Figure 4A illustrates a stadium-style, live craps table environment and Figure 4B illustrates a betting layout for a roulette game, the point is that whatever is displayed in one environment can start with a broader first field of view (referred to herein as gaming floor view) showing the overall gaming environment, and switch/zoom-in to narrower second field of view (referred to herein as game view) in which a gaming interface for playing a game is displayed on the gaming screen 430. The switching from the first to the second fields of view may be based on a user selection whereby the later

can be made by specific selection 410 of the play station 340 or the gaming machine 310 by the remote user; and/or for instance by continued zoom-in until into the first field of view until a certain/significant portion of a play station 340 or of the gaming machine 310 is presented on the screen 430 of the user device.

[0071] As illustrated in Figure 4A, a first field of view 420 (gaming floor view) may be streamed to a player or user device. In various embodiments, the user device is at least one of a phone, a smartphone, a tablet, a personal computer, or a gaming device. In some examples, the first field of view 420 may be manipulated using a screen tap, voice-command, motion, selection, or other interactive device, such as a stylus, mouse, controller, or other peripheral. A player may zoom in or out of the first field of view 420 based on a pinching motion bringing two fingers together or apart to control the zoom level. In other examples, a user may tap the screen (e.g., single tap, double tap, multi-tap, short press, long press, etc.) at the desired zoom location, or draw a circle, box, or other shape around an area or object of interest. Via voice-command, the user may simply instruct the user device to zoom the first field of view 420, which then slowly zooms until the user instructs the user device to stop or a permitted maximum zoom is achieved.

[0072] As seen in Figure 4A the display may highlight a selection 410 made by any of the motions, taps, or interactions discussed herein. After the selection is confirmed, verified, or otherwise satisfies a visual threshold, the video stream switches from the first field of view (gaming floor view) 420 to a second field of view (game view) as shown in Fig. 4A. In an example, to achieve that the video stream may switch from camera 360 to another camera showing the gaming interface of the selected play station or to a video output from the play station.

[0073] In an example, a player may select a particular play station shown in scene 420 by zooming in on the player device. When the player zooms in close enough that the screen of the selected player device meets a threshold, the video stream from camera 360 is stopped, and the video output of the selected play station fills device screen 440. The video output of the selected play station may be for example a video output from the gaming machine/table 310 which correspond to the selected play station; and/or video output from the selected play station itself; and/or video output from a camera arranged to capture the selected play station.

[0074] In some embodiments, the selection threshold may be a tap selection of the chosen play station. In other embodiments, the selection threshold occurs when the selected

play station is zoomed in on to at least a certain point. For example, the camera video stream may stop and transfer to the gaming video output when the player zooms in far enough to only see the screen of the play station. In another example, the camera video stream may stop and transfer to the gaming video output when a particular section of the play station fills the user device screen 440. The particular section may be a gaming area, a screen area, a control area, or other part of the play station. In yet another example, selection threshold may occur when the gaming machine/table 310 is selected (e.g., or zoomed in at least to certain point), and in this case the camera video stream may stop gaming machine/table 310 video output when a particular section of the play station fills the user device screen 440. In this case a selected play station may be selected (e.g., randomly) by the gaming machine/table 310 from among vacant play station, or the gaming machine/table 310 may select and emulate a “virtual” play station, and stream to the user device screen 440 a video output corresponding to the selected play station using any of the above described techniques.

[0075] According to various aspects, the camera 360 may stream a default scene view indicative of a first field of view. The first field of view may be some or all of the gaming floor. The first field of view may be larger than a screen of any play station. When the scene 420 is adjusted to fill the screen 440 with the screen and/or gaming interface of a selected play station, the video stream may switch from the camera 360 to video output showing the play station or its gaming interface. In some examples, the switch may occur when an element of the play station, e.g., screen bevels, a frame, a side portion of the play station, etc., are no longer in view on screen 440. Accordingly, the video stream switch may occur when the first field of view adjusts to a second field of view within the first field of view.

[0076] Figure 4B illustrates play station video output 430 streamed to a player device 400. When the video stream switches from gaming floor view (obtained by the camera 360 or image sensor) to the game view, the player can play the game directly on their device. A player may make bets, gaming selections, interactions, and other gaming input and interaction as if play were occurring live at the play station. At any time, the player may also zoom back out sufficiently to switch back to the gaming floor view, which may allow the player to confirm that the player is seeing the live play even while zoomed in on the screen/gaming interface or other predetermined part(s) of the of the play station. The ability to switch back and forth between the gaming floor view and the play station view creates a

more secure and authentic experience for the player, as though they were truly within the live casino environment, instead of playing remotely somewhere else.

[0077] In some examples, the game may include a live dealer with an electronic table game in a pit. Similar to the layout illustrated in Figure 3, a live event may occur in a gaming region (e.g., table 310), visible to those playing at a play station. Events occurring in the gaming region may be bet on, viewed, or otherwise interacted with at the individual play stations. In some cases, the live event may be a live dealer, a dice throw, a roulette spin, or other betting event occurring in real time.

[0078] For example, players may place bets using a wallet saved on the user device. Funds may be transferred via the wallet to the gaming application or other means to place bets similar to how bets would be made at the play station.

[0079] In some examples, one or more peripherals may be connected to the user device to enhance the gaming experience. For example, a button (e.g., “bash button”) may be connected to the user device to allow players to initiate certain gaming events by activating the button. Other types of peripherals may be applicable, based on the play station and/or game type. In some examples, the peripheral may be connected through a Universal Serial Bus (USB). In another example, a card reader may be connected to the user device, to enable users to add funds, log in, or access loyalty programs, discounts, free games, and the like.

[0080] The gaming experience and gaming interactions at the player device may occur in real time, thus providing a live gaming experience to players. This also allows players who are remote or otherwise unable to play locally at a play station to play. The remote control of the play station, via any of the techniques discussed herein, enable more players to access the play stations. In addition to improving gaming access, the techniques also provide variety as to how games are played, which may also increase player interest, entertainment, and participation. Such improvements can further benefit the gaming location and its profitability since more players can access the games and play remotely, and the number of unoperated play stations at any given time will likely be reduced.

[0081] Figure 5 provides a flowchart of a live gaming operation, in accordance with various aspects. Such operations may occur using one or more computing devices, including a processor and memory. Various techniques may utilize one or more cameras, user devices (e.g., cell phone, smartphone, PC, gaming device, etc.), gaming machines (e.g., an electronic table game) and/or play stations thereof, or applications operating on a user device or other computing device. In some examples, a user device may include a downloadable application,

which provides access to a camera showing a gaming floor and to gaming machine(s) thereat, and manages one or more operations described herein. In some examples, the application may communicate with one or more remote computing devices, servers, databases, and computing elements to manage communications and operations between various devices.

[0082] At block 510, aspects may stream video output from a camera to a display associated with a user device, wherein the video output captures a first field of view (gaming floor view) showing a gaming floor comprising one or more gaming machines (or their associated play station(s)). The field of view may correspond to a viewable region provided on a display associated with the user device. As discussed herein, the first field of view may be a gaming floor (e.g., gaming area 300), at least one play station, or other live view within a gaming location. In an example, the first field of view captures one or more play stations, a gaming screen of a play station and a surrounding element of the play station. The surrounding element may be a screen bevel, a frame, a side portion of the play station, among others.

[0083] There may be one or more selectable regions within the first field of view. A selectable region may correspond to a play station, and/or a gaming interface on the play station. In some examples, the selectable region may be generated based on an identification of one or more objects, such as a play station, and/or a display associated with a play station, within the first field of view.

[0084] The first field of view may capture a gaming floor including a plurality of play stations, which may be selectable from the user device, as described herein, to initiate a remote gameplay operation. receiving, from the user device,

[0085] At block 520, aspects may receive player input at the user device indicative of a selection to initiate an action involving a certain gaming machine/play station presented in the gaming floor view. The player input may for example be in the form of instructions to update the video output to a second field of view showing more closely the certain gaming machine/play station being of interest to the user. The player instructions may include a tap, pinch, hold, or other motion or manipulation of the scene depicted in the first field of view. For example, the player instructions may enable a zoom in or out on various areas within or surrounding the first field of view. The player instructions may be a motion performed on the display, the motion indicative of a selection of a play station or gaming area on the play station. The motion may be a zooming motion, a circular motion, a screen tap, or a screen

hold. According to some aspects, the video output on the display may update in real-time, based on the player input.

[0086] In response to player input at the user device, the first field of view may update to a second field of view (game view). In some examples, player input may cause the user device to zoom in to a region, such as a player station or a display associated with the player station, within the first field of view. The region may be a selectable region within the first field of view.

[0087] Optionally, at block 530, aspects may determine that the second field of view corresponds to a gaming interface, or part thereof, on the play station. In various examples, the second field of view displays an area within the first field of view. For example, a first field of view may be a gaming area/floor, and the second field of view may be gaming interface of a play station (e.g., elements such as a screen and/or controls of the play station). In other examples, the second field of view may be an area adjacent to the first field of view. As discussed herein, the determination may be based on a threshold, such as a visual threshold or a selection threshold. The threshold may, for example, correspond to a size of an object or an area relative to a size of the display of the user device. A user may enlarge or zoom in on an object, such as a display of a player station, and when the player station display size reaches a threshold amount (e.g., 50%, 60%, 70%, 80%, 90%, 100%) of the user device display, the second field of view may be determined to be associated with the gaming area. In other examples, reaching the threshold may initiate a selection of a selectable region within the first field of view. Similar to the first field of view, the second field of view may provide a view of an area or an object in real time.

[0088] At block 540, aspects may stream the second field of view (game view) as video output from the play station (or video output of its associated gaming machine) or as video output from a camera capturing the play station, to the display associated with the user device. According to various aspects, the video stream of the first field of view may be stopped upon the determination at block 530, and the streaming of the game view (second field of view) may be started. In some examples, the streaming of the first field of view may be stopped upon determining that the user/player had selected therewithin a second field of view corresponding to a certain play station or gaming interface thereof (such as its gaming screen).

[0089] The video stream switch may further include transferring gameplay control from the play station to the user device. This may occur after a determination that the second

field of view corresponds to the gaming interface. In some examples, the play station may no longer be playable by a live player or another remote player, since its gameplay operation has been transferred to the user device.

[0090] As indicated above, the second field of view (game view) may be a video output from a camera capturing the play station (e.g., and its gaming interface), a video output of the play station itself, or may be a video output obtained from another a game module associated with the play station, such as video output from a gaming machine connected to the play station, which would otherwise be provided to the display of the play station during gameplay by a local player. In some examples, the play station video output may be provided on both the play station and on the display associated with the user device.

[0091] At block 550, aspects may operate the live game based on gaming input received at the user device. The gaming input may correspond to gameplay on the play station and enable operation of the play station from the user device. A remote player may therefore select and play a particular play station at a gaming arena/floor without being physically present at the gaming arena. Such aspects may increase player choice and entertainment by enabling players to view live streams of a gaming arena/floor, select a particular gaming machine, or play station thereof, to play and operate a live game on the gaming-machine/play-station, in real-time. Aspects may therefore simulate live gaming experiences for remote players, and provide a unique gameplay technique, which combines live, virtual, remote gameplay, with a physical gaming device. For example, the gaming input may be a selection, a command, such as a launch command, or initiation of an operation, such as a seed determination. An external controller connected to the user device may be configured to perform gameplay operations and provide gaming input. As discussed herein, the live game may be craps, roulette, blackjack, or another virtual game, or table game.

[0092] Gaming input may generate one or more commands which are communicated to the gaming machine, to operate the gaming machine in a same manner as a live player at the machine. As seen in Figures 4B live gaming output may provide a live view of a gaming screen that is reflective of the game provided to the play station of the gaming machine. A remote player may toggle between the gaming screen and a view of the play station, and/or of the gaming floor/arena, and make selections at the user device, just as a live player at the machine would. Gaming input is reflective of the particular game being played, and may include, for example, selections to deal a card, select one or more symbols on a betting layout, initiate a launch, place a bet, cash out, and the like.

[0093] In some examples, as in Figure 4B, the live gaming output reflects a gaming screen associated with the gaming machine, or a play station thereof) and selections/interactions at the user device with the live gaming output are mapped to control the gaming machine. For example, a live player could make one or more selections (e.g., bets) directly on the player machine by touching the screen. A selection at a user device may be mapped and communicated to the gaming machine, so that remote gameplay commands operate the machine similar to a live player operating the gaming machine.

[0094] To further promote a live gameplay experience, as discussed herein, a user may switch between various views, displays, and gaming output associated with the player machine. As such, as user may view the gaming floor (e.g., in the above indicated first field of view), zoom in to a particular the gaming machine/play-station, and/or view/operate a live game at a selected gaming-machine/play-station (e.g., in the above indicated second field of view), just as a player would in person.

[0095] Each of the blocks of Figure 5 may be reversed as further discussed herein, such that when player input at the user device indicates that the video input is to be updated from the second field of view to the first field of view the video output stream reverses from the game view to the gaming floor view.

[0096] Figure 6 illustrates an example play station for a gaming machine in accordance with various aspects of the present disclosure. According to some examples, the play station may include a universal cabinet. In some universal cabinet configurations, different games/gaming-machines may be connected to a top 601 of an upper section 602 of the play station 600 (e.g., to form together an integral individual gaming machine). The play station 600 may include a lower section 603 on which the upper section rests. As further illustrated in Figures 7 and 8A-8E, the play station may include a number of exterior elements that provide visual and audio effects. Such exterior elements may serve to attract attention to the game, so as to entice someone passing by to play a game offered by the universal cabinet, or to enhance the play of a game being played at the gaming machine.

[0097] The exterior elements may include soft touch gel buttons, such as buttons 604 and 606, gel arm rests 608 at the bottom of the upper section 602 where a player's arms would rest for extended periods of time, and a control button 610 that may be usable for different games. Other lighting effects that may be provided include gel LED modules 612 of different sizes and shapes and an ambient LED 614 that illuminates the bottom section 603 from underneath the upper section 602. The upper section 602 may further include a

money/credit/card receiving/payout mechanism 616 and a display 618. Speakers 620 in the lower section 603 may provide some or all of the sound, depending on the nature of the game being played. A foot rest 622 may also be built into the lower section 602.

[0098] The inside of the universal cabinet may include a controller module that may provide common connections for each of the different types of topper gaming machines and provide a USB connection to an embedded computer (not shown) in the bottom section 603. The embedded computer may be a GANLOT AMDY-7005, which is designed for gaming applications. The controller module may also provide outputs for the base cabinet lighting and buttons, which makes it possible to offer numerous gaming machine lighting designs. The controller module may also make it possible to quickly change a topper gaming machine on the game station 600. Only the upper section 602 may need to be removed to access the controller module. Connections from the existing topper may be disconnected and the topper removed from the upper section 602. The new topper may then be attached to the upper section 602 and its connections plugged into the controller module. In an embodiment, a switch in the controller module may then be switched to correspond to the new topper. In other embodiments, the new topper gaming machine can be identified by connecting or plugging one or more additional modules for that topper into the controller module or changing a program of the embedded computer. This may make it possible to quickly change the type of game that is being played on the universal cabinet of the play station 600 without have to remove the play station 600 from any row it is in and without moving other machines or forcing the other machines to be shut down. This may also make it possible to prototype and develop other toppers for new games, further reducing development and production costs.

[0099] Figure 7 further illustrates the play station 600 of a gaming machine when a seat 750 and a tall, curved display topper 740 have been connected. In some examples, the gaming machine is a slot machine. The display topper 740 may include one or more physical, visual, and/or virtual elements to provide gameplay for slots.

[00100] In addition to the speakers 620 built into the lower section 603 of the play station 600, such as a 50 Watt/4 Ohm subwoofer speaker, the seat 750 may include additional speakers 702, such as two 25 Watt/8 Ohm speakers in an upper section 703 of the seat 750. Additional speakers may be included in the topper 740, such as two 25 Watt/8 Ohm speakers 708 at the top of the topper 740 and two 25 Watt/8 Ohm speakers 710 at the bottom of the topper 740. In addition to those speakers, a 50 Watt/4 Ohm rumble speaker 704 may be

provided in the bottom section 705 of the seat 750. This many speakers may enable a variety of audio effects, especially if a range of speaker types are used, including tweeters, midranges and subwoofers or woofers.

[00101] Figures 8A-8E illustrate individual gaming machines (integrated/mounted on respective play-stations) providing different types of casino games. According to some examples, different games may be provided by gaming machines toppers added/mounted to the respective play-stations 600, as previously discussed. However, other styles of individual gaming machines, including standard player cabinets, and machines with or without removable toppers, may be usable with various aspects and embodiments discussed herein.

[00102] Figure 8A illustrates a gaming machine providing a dice game. According to some embodiments, a dice gaming machine topper 800, may enable craps, sic-bo, and other types of dice games to be played. In some examples, the gaming machine may include a random generator (not shown) for controlling the randomness of the dice roll in order to make a game fair. Even though the dice are being tossed as part of the game in the see-through section 802 of the dice topper 800, the game cycle speed may be just as fast as slot machine game cycles, thereby providing a different and more exciting form of a game with at least the same revenue potential as a slot machine being played for the same period of time. Depending on the type of game incorporated into the topper, the play station 600 may send random results for the game to the topper and in other cases the topper may send the random results to the bottom. For example, in the dice game, the resulting throw of the dice may be randomly affected by a random generator in the base, but the resulting throw cannot be predetermined so it has to be determined at the topper and then sent to the play station 600.

[00103] Figures 8B and 8C illustrate gaming machines providing card games. Although Figure 8B illustrates a baccarat game 802 and Figure 8C illustrates blackjack 804, the player stations may be configured to provide any of a variety of card games, including but not limited to poker, Texas Hold 'Em, Dai Bacc, and other card game variations. Some gaming machines providing card games may include a card mechanism 806, such as a SUZO card flipper module, that may flip physical playing cards under control of the random generator. The card decks may be varied depending on the game, such as a classic deck with or without jokers, and cards including the back sides of cards so cards can be covered.

[00104] Figures 8D and 8E illustrate gaming machines providing roulette games. Figure 8D illustrates a configuration with a vertical roulette wheel gaming machine topper 802 and signage 816 on top of the roulette wheel 814. Figure 8E illustrates a configuration

including an additional display 828, on top of which is a mounted roulette wheel 822 and signage 824. Other games that include a spinning wheel, such as Big Six, WHEEL OF FORTUNE or similar games.

[00105] Figure 9 provides an example floor plan of a casino pit 900 with a plurality of play stations 940 associated-with/connected-to one or more gaming machines. For brevity in the following play-stations together with their associated gaming-machines (e.g., which may be toppers of the stations or otherwise remote therefrom) are referred to as play machines. As discussed herein, the player machines may provide a variety of betting and casino games, including but not limited to poker, craps, roulette, blackjack, other card games, dice games, and video games, as well as a variety of slot machines. In some examples, the player machines are only remotely playable. In other examples, one or more player machines may also be played live.

[00106] According to some examples, the casino pit 900 is in a dedicated gaming area, which may be a gaming floor or a separate room in which one or more remotely accessible player machines are located. As discussed herein, a player machine may be reservable for a particular player or player account, such as a VIP player or high roller. Such players may have exclusive access to one or more machines within the casino pit 900, such that other players are unable to play the machine. The option to reserve and/or play an exclusive gaming machine may attract new players and encourage existing players to play more. According to various examples, the casino pit 900 may include any or all of the player machines 940.

[00107] One or more cameras 960a-d may provide video output of the casino pit 900. Such cameras may be positioned in different areas to provide different views of the gaming floor. In some examples, one or more cameras 960a-d may be focused on, and/or optionally directed, e.g., via a user device or other computing device, to a particular player machine. As players may not be playing the machines that are dedicated for remote play, one of the one or more cameras 960a-d may be positioned in front of a player machine, such as at the top of a seat if a seat is provided or on a stand where the seat would normally be located.

[00108] The video output may be streamed to a user device, such as a smartphone, personal computer, or other gaming device. In some examples, input at the user device may select a first camera (e.g., camera 960a), and live video output from the first camera may be viewed at a display associated with the user device, to provide the user with a gaming floor view of the pit 900. Input at the user device may also adjust the camera's video, for example,

causing a closer view or zoomed in view of an object within the casino pit 900, such as a player machine 940, or moving the camera to focus on a different area. Such user device input may also enable live video feed switching between cameras, e.g., from a first camera 960a to any other camera 960b-d. In various embodiments, input received at the user device may also adjust any or all of the cameras' fields of views, to view a desired region of interest. Changes to camera views may occur before, during, or after gaming events, to promote control and gameplay customization by a player operating a user device.

[00109] In some examples, camera(s) 960a-d may include an image sensor configured to capture image data on a continuous basis. The at least one image sensor may be configured to capture image data associated with particular game cycles of the games played at a player machine 940. Image sensor may provide the captured image data to a controller associated with the camera 960 as a video stream, a sequence of individual image frames, raw image data, and the like. In an embodiment, a controller (in the form of a computer system, see e.g., Figure 12) associated with the player machine 940 and/or user device may configure the image sensor by specifying a frame-rate, a resolution, a color value, a video stream encoding format, a subset of the image sensor's available pixels to activate and/or deactivate, and the like.

[00110] In some examples, image data captured by an image sensor may provide a live video feed, e.g., a live game view, showing operations happening at a gaming-machine/play-station 940. In an embodiment, the camera may capture image data for a predefined period of time, such as a particular game cycle. For example, such predefined periods may be associated with a dice roll, roulette ball launch, a roulette ball landing result, a slot roll, a card draw, a betting window associated with a particular game, or another event occurring at a player machine 940.

[00111] In an embodiment, the image sensor is configured to capture image data associated with a particular area of the gaming-machine/ play-station, such as the gaming interface thereof (e.g., a screen 922 or a region on a topper). For example, if a roulette wheel gaming machine were located on a topper of a play station, the image sensor may capture image data corresponding to the any or all of a launch point, an arc portion of annular track, a predefined reference point of roulette wheel, a table stop position of roulette wheel, and the like. As discussed herein, the image sensor may be remotely controlled, and the captured image data may correspond to input received at the user device.

[00112] Figures 10A-C illustrate interactive gaming and video stream switching techniques occurring at a user device 1000. In Figure 10A the player device may display a live video feed 1020 of a first field of view showing a live gaming floor view of the casino pit 900 captured by a camera (e.g., any of cameras 960a-d).

[00113] Figure 10B illustrates a switch to a different, second, field of view 1050 presenting game view of a selected play station. In some examples, input at the user device may switch between the first field of view output from a first camera (e.g., live video feed 1020) to the first field of view output from a second camera. The second camera view may show a region of interest at the selected play station. The region of interest may be a gaming interface of the selected player machine (e.g., player control area or a screen). Various embodiments enable user input to switch between different regions of interest, which may be associated with an area on the player machine, or in the casino pit. Some embodiments enable switching between live gaming floor view (e.g., live video feed 1020) and the live game view (e.g., live gaming output 1030). In any of these examples, user device input may enable zooming in and out of a view provided by a live video feed or a live gaming feed and may move the camera view so as to change the field of view.

[00114] Figure 10C illustrates live game view showing gaming output 1030 streamed from a gaming machine to an interactive gaming screen of the play station, or of the user device, or to both. The live gaming output may be streamed following a selection, e.g., selection 1010, of a player station to initiate gameplay. Although Figure 10C illustrates a betting layout for a roulette game, the live gaming output will reflect whichever game is associated with the selected play station. As discussed herein, the game may be slots, roulette, poker, or another, card, dice, or video-based game.

[00115] In various embodiments, the user device is at least one of a phone, a smartphone, a tablet, a personal computer, or a gaming device. In some examples, the live video feed 1020 (gaming floor view) may be manipulated using a screen tap, voice-command, motion, selection, or other interactive device, such as a stylus, mouse, controller, or other peripheral. A player may zoom in or out of the live video feed 1020 using a pinching motion bringing two fingers together or apart to control the zoom level. In other examples, a user may tap the screen (e.g., single tap, double tap, multi-tap, short press, long press, etc.) at the desired zoom location, or draw a circle, box, or other shape around an area or object of interest. Via voice-command, the user may simply instruct the user device to zoom into the

scene, which then slowly zooms until the user instructs the user device to stop or a permitted maximum zoom is achieved.

[00116] As seen in Figure 10A the display may highlight a selection 1010 made by any of the motions, taps, or interactions discussed herein. After the selection is confirmed, verified, or otherwise satisfies a visual threshold, the video stream may switch from camera the live video feed from a first camera to live gaming output, such as video output from a player machine.

[00117] In an example, a player may select a particular player machine shown in the gaming floor view by zooming in on the player machine via the user device. When the player zooms in close enough that the screen of the selected player machine meets a threshold, the video stream from camera 960 is stopped, and the video output from the selected player machine fills the user's device screen 1040. The player may then control the player machine by touching the user interface controls displayed on the device screen 1040. In some embodiments, the selection threshold may be a tap selection of the chosen player machine. In other embodiments, the selection threshold occurs when the selected player machine is zoomed in on to at least a certain point. For example, the camera video stream may stop and transfer to the live gaming output when the player zooms in far enough to only see the screen of the player machine. In another example, the camera video stream may stop and transfer to the live game view output when a particular section of the player machine fills the user device screen 1040. The particular section may be a gaming interface (e.g., a screen area, a control area, or other part of the player machine).

[00118] A selection 1010 may also reserve a player machine for exclusive use. The selection may associate a particular player, a player account, the user device, or other player identifier. Reservations may prevent a second player, such as either a remote player or live player, from reserving, using, or operating the machine for a period of time. The period of time may, for example, be a duration of play for one or more rounds of play, or a predetermined period of time, such as thirty minutes, one hour, two hours, and the like. Reservations may be made in advance, e.g., for a particular, date, time, and/or length. Machines/stations with reservations may not be selectable for play during the reservation period. In some examples, player machines may still be reservable for an upcoming, open time period, even while being operated by a current player.

[00119] The live video output, as seen in FIG. 10A, may provide an indication of available machines, open for play and/or reservations. In some examples, a display associated

with a player machine may provide a color, text, animation, video, or other availability indicator so that a player may easily tell the player machine status, from the video feed. Machine availability may be provided upon a selection (e.g., selection 1010) of a particular machine. A selection may provide information regarding one or more of a current status, any upcoming reservations, and other gaming details.

[00120] In some examples, player machines may provide an indication or notification regarding the reservation. For example, a machine with an upcoming, scheduled reservation may notify a current player that their game time will expire, and may provide a time or countdown until the expiration. If the current player is not associated with the upcoming reservation, their gameplay will end at the time of the next reservation. A notification, such as an alert, text, email, sound, etc., may be sent to a user device as a reminder for an upcoming reservation and/or when the reservation time arrives.

[00121] Some machines may provide a time period in which a player must initiate a game during a reservation period. For example, a reserved machine may be held for five, ten, or fifteen minutes past a reservation period before becoming available for play by another player. This may help prevent machines from being reserved, but not played, and enable other players to play the game, and thereby contribute to additional games played, player engagement, and overall profitability. VIPs, high rollers, and certain players may be excluded from such rules based on, for example, their player status or other characteristics associated with their account. This may allow gaming locations to provide a benefit to particularly valuable players, such as high-spenders, or other players who want to play on a particular machine. Such reservation features promote additional gaming and a customizable player experience.

[00122] According to various aspects, the live video feed 1020 may stream a default scene view indicative of a first field of view. The first field of view may be some or all of the gaming floor. The first field of view may be larger than a screen of any player machine. When the scene is adjusted to fill the screen 1040 with the screen or gaming area of a selected player machine, the video stream may switch from the camera to the player machine. In some examples, the switch may occur when an element of the player machine, e.g., screen bevels, a frame, a side portion of the player machine, etc., are no longer in view on screen 1040. Accordingly, the video stream switch may occur when the first field of view adjusts to a second field of view within the first field of view.

[00123] As illustrated in Figure 10C, when the live video stream switches from the camera 960 to live gaming output 1030 (e.g., player machine video), the player can play the game directly on their device. A player may make bets, gaming selections, interactions, and other gaming input and interaction as if play were occurring live at the player machine. At any time, the player may also zoom back out sufficiently to switch back to the camera video stream, which may allow the player to confirm that the player is seeing the live play even while zoomed in on the screen of the player machine. The ability to switch back and forth between the camera video stream and the player machine video stream creates a more secure and authentic experience for the player, as though they were truly within the live casino environment, instead of playing remotely somewhere else.

[00124] In some examples, players may place bets using a wallet saved on the user device. Funds may be transferred via the wallet to the gaming application or other means to place bets similar to how bets would be made at the player machine.

[00125] In some examples, one or more peripherals may be connected to the user device to enhance the gaming experience. For example, a button (e.g., “bash button”) may be connected to the user device to allow players to initiate certain gaming events by activating the button. Other types of peripherals may be applicable, based on the player machine and/or game type. In some examples, the peripheral may be connected through a Universal Serial Bus (USB). In another example, a card reader may be connected to the user device, to enable users to add funds, log in, or access loyalty programs, discounts, free games, and the like.

[00126] The gaming experience and gaming interactions at the player device may occur in real time, thus providing a live gaming experience to players. This also allows players who are remote or otherwise unable to play directly on at a player machine to play. The remote control of the player machine, via any of the techniques discussed herein, enable more players to access the player machines. In addition to improving gaming access, the techniques also provide variety as to how games are played, which may also increase player interest, entertainment, and participation. Such improvements can further benefit the gaming location and its profitability since more players can access the games and play remotely, and the number of unoperated player machines at any given time will likely be reduced.

[00127] Figure 11 provides a flowchart of a live gaming operation, in accordance with various aspects. Such operations may occur using one or more computing devices, including a processor and memory. Various techniques may utilize one or more cameras, user devices (e.g., cell phone, smartphone, PC, gaming device, etc.), player machines, or

applications operating on a user device or other computing device. In some examples, a user device may include a downloadable application, which provides access to the camera and player machine(s) and manages one or more operations described herein. In some examples, the application may communicate with one or more remote computing devices, servers, databases, and computing elements to manage communications and operations between various devices.

[00128] At block 1110, aspects may stream live video output from a camera to a display associated with a user device, wherein the video output captures a first field of view comprising a player machine. As discussed herein, the first field of view may be a gaming floor (e.g., casino pit 900), at least one player machine, or other live view within a room or gaming location. The field of view may correspond to a viewable region provided on a display associated with the user device. In an example, the first field of view captures a casino pit having one or more remotely accessible player machines. In another example, the first field of view captures a gaming screen on a player machine and a surrounding element of the player machine. The surrounding element may be a screen bevel, a frame, a side portion of the player machine, among others. There may be one or more selectable regions within the first field of view. A selectable region may correspond to a gaming area on the play station. In some examples, the selectable region may be generated based on an identification of one or more objects, such as a play station, and/or a display associated with a play station, within the first field of view.

[00129] The first field of view may capture a gaming floor including a plurality of play stations, which may be selectable from the user device, as described herein, to initiate a remote gameplay operation. In some examples, the live video output may be changed based on input received at the user device. For example, the live video stream may switch from a first video output from a first camera to a second video output from a second camera.

[00130] In various examples, the first field of view may be adjusted, via input at the user device, to a second field of view. In some examples the second field of view is an area within the first field of view. The first field of view may be a gaming area, and the second field of view may be a player machine element, such as a screen of a player machine. In other examples, the second field of view may be an area adjacent to the first field of view. As discussed herein, the determination may be based on a threshold, such as a visual threshold or a selection threshold. The threshold may, for example, correspond to a size of an object or an area relative to a size of the display of the user device. A user may enlarge or zoom in on an

object, such as a display of a player station, and when the player station display size reaches a threshold amount (e.g., 50%, 60%, 70%, 80%, 90%, 100%) of the user device display, the second field of view may be determined to be associated with the gaming area. In other examples, reaching the threshold may initiate a selection of a selectable region within the first field of view. Similar to the first field of view, the second field of view may provide a view of an area or an object in real time.

[00131] At block 1120, aspects may receive input from the user device to initiate a game at the player machine. The input may include a tap, pinch, hold, or other motion or manipulation of live video output. The selection may also identify a particular player machine, an availability, or other gaming information. In some examples, the input may enable a zoom in or out on various areas within or surrounding the first field of view. The input may also include a motion performed on the display, the motion indicative of a selection of a player machine or gaming area on the player machine. The motion may be a zooming motion, a circular motion, a screen tap, or a screen hold. According to some aspects, the video output on the display may update in real-time, based on the player input.

[00132] In response to player input at the user device, the first field of view may update to a second field of view. In some examples, player input may cause the user device to zoom in to a region, such as a player station or a display associated with the player station, within the first field of view. The region may be a selectable region within the first field of view.

[00133] At block 1130, aspects may stream live gaming output from the player machine to the user device. The live gaming output may include video output from the player machine. Such video output may be similar to video output provided on the device if it were played in-person.

[00134] In some examples, adjusting a field of view, or video stream switch may transfer gameplay control from the play station to the user device. The control transfer may occur after a determination that the second field of view corresponds to the gaming area. In some examples, the play station may no longer be playable by a live player or another remote player, since its gameplay operation has been transferred to the user device.

[00135] The play station video output may correspond to a game module associated with the play station. Such video output would otherwise be provided at the play station, such as on the display associated with the play station, during gameplay by a live, in-person

player. In some examples, the play station video output may be provided on both the play station and on the display associated with the user device.

[00136] At block 1140, aspects may operate the player machine based on gaming input received at the user device. The gaming input may correspond to gameplay on the player machine and enable operation of the play station from the user device. A remote player may therefore select and play a particular play station at a gaming location without being physically present at the gaming location. Such aspects may increase player choice and entertainment by enabling players to view live streams of a gaming location, select a particular play station, and operate a live game on the play station, in real-time. Aspects may therefore simulate live gaming experiences for remote players, and provide a unique gameplay technique, which combines live, virtual, remote gameplay, with a physical gaming device. For example, the gaming input may be a selection, a command, such as a launch command, or an initiation of an operation, such as a seed determination. An external controller connected to the user device may be configured to perform gameplay operations and provide gaming input. As discussed herein, the live game may be craps, roulette, blackjack, or another card game, dice game, video game, virtual game, or table game.

[00137] Gaming input may generate one or more commands which are communicated to the player machine, to operate the gaming machine in a same manner as a live player at the machine. As seen in Figures 10C live gaming output may provide a live view of a gaming screen that is reflective of the game provided at the player machine. A remote player may toggle between the gaming screen and a view of the player machine, and make selections at the user device, just as a live player at the machine would. Gaming input is reflective of the particular game being played, and may include, for example, selections to deal a card, select one or more symbols on a betting layout, initiate a launch, place a bet, cash out, and the like.

[00138] In some examples, as in Figure 10C, the live gaming output reflects a gaming screen associated with the player machine and selections at the user device are mapped to the player machine. For example, a live player could make one or more selections (e.g., bets) directly on the player machine by touching the screen. A selection at a user device may be mapped and communicated to the player machine, so that remote gameplay commands operate the machine similar to a live player operating the player machine.

[00139] To further promote a live gameplay experience, as discussed herein, a user may switch between various views, displays, and gaming output associated with the player

machine. As such, as user may view live game view output, the play-station/gaming-machine, the gaming floor, and operate the player machine just as a player would in person.

[00140] Each of the blocks of Figure 11 may be modified as further discussed herein, such that player input at the user device may switch, as desired, between live video output, live gaming output, and various fields of views from each.

[00141] The present disclosure describes particular embodiments and their detailed construction and operation. The embodiments described herein are set forth by way of illustration only and not limitation. Those skilled in the art will recognize, in light of the teachings herein, that there may be a range of equivalents to the exemplary embodiments described herein. Most notably, other embodiments are possible, variations can be made to the embodiments described herein, and there may be equivalents to the components, parts, or steps that make up the described embodiments. For the sake of clarity and conciseness, certain aspects of components or steps of certain embodiments are presented without undue detail where such detail would be apparent to those skilled in the art in light of the teachings herein and/or where such detail would obfuscate an understanding of more pertinent aspects of the embodiments.

[00142] The techniques described above can be implemented on a computing device associated with a gaming device (e.g., a roulette machine operating a live roulette game), a plurality of computing devices associated with a plurality of gaming devices, a controller in communication with the gaming device(s) (e.g., a controller configured to synchronize the gaming devices(s)), or a plurality of controllers in communication with the gaming device(s). Additionally, the techniques may be distributed between the computing device(s) and the controller(s). Figure 12 illustrates an exemplary block diagram of a computing system that includes hardware modules, software module, and a combination thereof and that can be implemented as the computing device and/or as the server.

[00143] In a basic configuration, the computing system may include at least a processor, a system memory, a storage device, input/output peripherals, communication peripherals, and an interface bus. Instructions stored in the memory may be executed by the processor to perform a variety of methods and operations, including the roulette wheel velocity adjustments and result detection optimization, as described above. The computing system components may be present in the gaming device, in a server or other component of a network, or distributed between some combinations of such devices.

[00144] The interface bus is configured to communicate, transmit, and transfer data, controls, and commands between the various components of the electronic device. The system memory and the storage device comprise computer readable storage media, such as RAM, ROM, EEPROM, hard-drives, CD-ROMs, optical storage devices, magnetic storage devices, flash memory, and other tangible storage media. Any of such computer readable storage medium can be configured to store instructions or program codes embodying aspects of the disclosure. Additionally, the system memory comprises an operation system and applications. The processor is configured to execute the stored instructions and can comprise, for example, a logical processing unit, a microprocessor, a digital signal processor, and the like.

[00145] The system memory and the storage device may also comprise computer readable signal media. A computer readable signal medium may include a propagated data signal with computer readable program code embodied therein. Such a propagated signal may take any of variety of forms including, but not limited to, electro-magnetic, optical, or any combination thereof. A computer readable signal medium may be any computer readable medium that is not a computer readable storage medium and that can communicate, propagate, or transport a program for use in connection with the computing system.

[00146] Further, the input and output peripherals include user interfaces such as a keyboard, screen, microphone, speaker, other input/output devices, and computing components such as digital-to-analog and analog-to-digital converters, graphical processing units, serial ports, parallel ports, and universal serial bus. The input/output peripherals may also include a variety of sensors, such as light, proximity, GPS, magnetic field, altitude, and velocity/acceleration. RSSI, and distance sensors, as well as other types of sensors. The input/output peripherals may be connected to the processor through any of the ports coupled to the interface bus.

[00147] The user interfaces can be configured to allow a user of the computing system to interact with the computing system. For example, the computing system may include instructions that, when executed, cause the computing system to generate a user interface and carry out other methods and operations that the user can use to provide input to the computing system and to receive an output from the computing system.

[00148] This user interface may be in the form of a graphical user interface that is rendered at the screen and that is coupled with audio transmitted on the speaker and microphone and input received at the keyboard. In an embodiment, the user interface can be

locally generated at the computing system. In another embodiment, the user interface may be hosted on a remote computing system and rendered at the computing system. For example, the server may generate the user interface and may transmit information related thereto to the computing device that, in turn, renders the user interface to the user. The computing device may, for example, execute a browser or an application that exposes an application program interface (API) at the server to access the user interface hosted on the server.

[00149] Finally, the communication peripherals of the computing system are configured to facilitate communication between the computing system and other computing systems (e.g., between the computing device and the server) over a communications network. The communication peripherals include, for example, a network interface controller, modem, various modulators/demodulators and encoders/decoders, wireless and wired interface cards, antenna, and the like.

[00150] The communication network includes a network of any type that is suitable for providing communications between the computing device and the server and may comprise a combination of discrete networks which may use different technologies. For example, the communications network includes a cellular network, a Wi-Fi/ broadband network, a local area network (LAN), a wide area network (WAN), a telephony network, a fiber-optic network, or combinations thereof. In an example embodiment, the communication network includes the Internet and any networks adapted to communicate with the Internet. The communications network may be also configured as a means for transmitting data between the computing device and the server.

[00151] The techniques described above may be embodied in, and fully or partially automated by, code modules executed by one or more computers or computer processors. The code modules may be stored on any type of non-transitory computer-readable medium or computer storage device, such as hard drives, solid state memory, optical disc, and/or the like. The processes and algorithms may be implemented partially or wholly in application-specific circuitry. The results of the disclosed processes and process steps may be stored, persistently or otherwise, in any type of non-transitory computer storage such as, e.g., volatile, or non-volatile storage.

[00152] An embodiment of a method for live gaming, comprising: streaming video output from a camera to a display associated with a user device, wherein the video output captures a first field of view of a gaming area comprising one or more play stations adapted for gameplay on at least one gaming machine; receiving, from the user device, a selection to

initiate an action involving the gaming machine; and in response to the selection switching from streaming the first field of view to streaming a second field of view to the user device.

[00153] In the embodiment, wherein said selection to initiate an action involving the gaming machine comprises carrying out at least one of the following at the user device: selecting a certain play station of said one or more play stations that is adapted for gameplay on said gaming machine; and zooming-in said first field of view to a certain play station of said one or more play stations that is adapted for gameplay on said gaming machine.

[00154] In the embodiment, wherein said streaming of the second field of view to the user device comprises at least one of the following: streaming live gaming output of the gaming machine which is designated for display at said certain play station; and streaming video output from a certain camera, being said camera or another camera, that is adapted to capture said second field of view such that it presents at least a part of a gaming interface of said certain play station at which live gaming output of the gaming machine at least partially appears.

[00155] In the embodiment, wherein the streaming of the second field of view comprises streaming live gaming output of the gaming machine to the user device.

[00156] In the embodiment, wherein the streaming of the live gaming output of the gaming machine comprises at least one of the following: streaming live gaming output obtained from the gaming machine; streaming video output from a certain camera, being the camera or another camera, with the second field of view at least partially capturing a live gaming output of the gaming machine and being narrower than the first field of view.

[00157] In the embodiment, wherein the second field of view includes an area of a certain play station adapted for game play on said gaming machine; and wherein said area of the certain play station includes at least part of a gaming interface suitable for gameplay on the gaming machine.

[00158] In the embodiment, wherein said area of the certain play station further includes a region of the play station in the surrounding of the gaming interface.

[00159] In the embodiment, wherein the selection to initiate an action further comprises a selection to initiate a game at the gaming machine.

[00160] In the embodiment, wherein the second field of view presents a gaming interface suitable for gameplay on the gaming machine; and wherein the method further comprises operating the gaming machine based on a second selection received from the user device within the gaming interface.

[00161] In the embodiment, further comprising receiving, from the user device, a selection to initiate a bet based on an outcome of a game played at the gaming machine by a local player operating the gaming machine in real-time.

[00162] In the embodiment, further comprising switching from streaming the second field of view to streaming the first field of view upon at least one of the following: an end of a gameplay cycle at said gaming machine; and receipt, from the user device, of a selection to quit the action involving the gaming machine.

[00163] In the embodiment, wherein at least one gaming machine comprise at least one of the following: at least one multiplayer gaming machine associated with a plurality of said play stations adapted to facilitate multiplayer gameplays at said multiplayer gaming machine; and one or more single player gaming machines each associated with one of said play stations.

[00164] An embodiment of a system, comprising: an application operating on a computer device, the application configured to at least: stream video output from a camera to a display associated with a user device, wherein the video output captures a first field of view of a gaming area comprising one or more play stations adapted for gameplay on at least one gaming machine; receive, from the user device, a selection to initiate an action involving the gaming machine; and in response to the selection switch from streaming the first field of view to streaming a second field of view to the user device.

[00165] In the embodiment, wherein the application is further configured to at least: receive, from a selection at the user device, a bet indicative of a predicted outcome of a game cycle associated with the gaming machine; and initiate the game cycle based on an action performed by a player or dealer at the gaming location.

[00166] In the embodiment, wherein the streaming of the second field of view comprises streaming live gaming output of the gaming machine to the user device.

[00167] An embodiment of a non-transitory computer-readable storage medium comprising instructions stored thereon that cause a computing device to at least: stream video output from a camera to a display associated with a user device, wherein the video output captures a first field of view of a gaming area comprising one or more play stations adapted for gameplay on at least one gaming machine; receive, from the user device, a selection to initiate an action involving the gaming machine; and in response to the selection switch from streaming the first field of view to streaming the second field of view to the user device.

[00168] In the embodiment, further comprising instructions stored thereon that cause the computing device to at least: operate the gaming machine based on input received at the user device.

[00169] In the embodiment, wherein said first field of view comprises live video output of the gaming area, and wherein said second field of view comprises live gaming output of the gaming machine.

[00170] In the embodiment, wherein the second field of view comprises a gaming interface suitable for gameplay on the gaming machine; and wherein the non-transitory computer-readable storage medium further comprises instructions to receive, from the user device, a selection within the gaming interface; and provide instructions to operate the gaming machine according to said second selection.

[00171] In an embodiment, a method for live gaming, comprises streaming video output from a camera to a display associated with a user device, wherein the video output captures a first field of view comprising a play station, receiving, at the user device, player input to update the video output to a second field of view, wherein the second field of view is within the first field of view, determining that the second field of view corresponds to a gaming area on the play station, streaming video output from the play station to the display associated with the user device, wherein the video output from the play station corresponds to a live game, and operating the live game based on gaming input received at the user device.

[00172] In an embodiment, wherein the first field of view captures a gaming screen on the play station, and a surrounding element of the play station.

[00173] In an embodiment, wherein the first field of view captures a gaming floor comprising plurality of play stations, wherein each of the plurality of play stations are selectable, from the user device, to initiate a remote gameplay operation.

[00174] In an embodiment, further comprising, after determining that the second field of view corresponds to the gaming area, transferring gameplay control from the play station to the user device.

[00175] In an embodiment, further comprising updating, in real-time, the video output on the display based on the player input.

[00176] In an embodiment, wherein the gaming input initiates at least one of a launch command and a seed determination associated with the live game on the play station.

[00177] In an embodiment, wherein the player input comprises a motion performed on the display associated with the user device, wherein the motion is indicative of a selection of the gaming area on the play station.

[00178] In an embodiment, wherein the motion is at least one of: a zooming motion, a circular motion, or a screen tap.

[00179] An embodiment, comprising: a camera capturing a gaming area comprising a play station, a play station, an application operating on a user device, the application configured to at least: stream video output from the camera to a display associated with the user device, update the video output based on a player input received at the user device, wherein the updated video output corresponds to a region within the gaming area, determine that the region corresponds to a gaming screen on the play station, stream video output from the play station to the display associated with the user device, wherein the video output from the play station corresponds to a live game, and operate the live game based on gaming input received at the user device.

[00180] In an embodiment, wherein the user device comprises at least one of a phone, a personal computer (PC), or a gaming device.

[00181] In an embodiment, wherein the play station is an electronic table game (ETG).

[00182] In an embodiment, wherein comprising an external controller connected to the user device configured to perform gameplay operations.

[00183] In an embodiment, wherein the external controller a button connectable to the user device via a Universal Serial Bus (USB).

[00184] In an embodiment, wherein the user device and the play station are remotely located.

[00185] In an embodiment, wherein the application is further configured to stop streaming video output from the camera upon determining that the region corresponds to the gaming screen.

[00186] An embodiment, comprising a non-transitory computer-readable medium comprising instructions stored thereon that cause a computing device to at least: stream video output from a camera to a display associated with a user device, wherein the camera captures a gaming area comprising a play station, update the video output based on a player input received at the user device, wherein the updated video output corresponds to a region within the gaming area, determine that the region corresponds to a gaming screen on the play station,

stream video output from the play station to the display associated with the user device, wherein the video output from the play station corresponds to a live game, and operate the live game based on gaming input received at the user device.

[00187] In an embodiment, wherein the live game is at least one of craps, roulette, blackjack, a virtual game, or a table game.

[00188] In an embodiment, wherein the player input comprises a motion performed on the display associated with the user device, wherein the motion is indicative of a selection of the gaming area on the play station.

[00189] In an embodiment, wherein the first field of view captures at least one of: the gaming screen on the play station and a surrounding element of the play station, or a gaming floor on which the play station is located.

[00190] In an embodiment, wherein the instructions further cause the computing device to: update, in real-time, the video output on the display based on the player input, and stop streaming video output from the camera upon determining that the region corresponds to the gaming screen.

[00191] In an embodiment, a method for live, remote gaming, comprises: streaming video output from a camera to a display associated with a user device, wherein the video captures a first field of view comprising a live gaming event at a gaming location; receiving, from the user device, a bet indicative of a predicted outcome of a game cycle associated with the live gaming event; initiating the game cycle based on an action performed by a player or dealer at the gaming location; streaming, in real-time, an outcome of the game cycle; and resolving the bet based on the outcome of the game cycle.

[00192] In an embodiment, further comprising, in response to input received from the user device, changing the first field of view to a second field of view, wherein the second field of view is within the first field of view.

[00193] In an embodiment, further comprising: determining that the second field of view corresponds to a gaming area on a play station; and streaming video output from the play station to the display associated with the user device, wherein the video output from the play station corresponds to the game cycle.

[00194] In an embodiment, further comprising: receiving a second bet from a second user device, and resolving the second bet based on the outcome of the game cycle.

[00195] In an embodiment, wherein the second user device is a remote user device or a local play station.

[00196] In an embodiment, wherein the action is a dice throw, a card draw, a roulette spin, or a slot spin.

[00197] In an embodiment, wherein the gaming event is at least one of a dice game, a card game, and a roulette game.

[00198] In an embodiment, further comprising: streaming live video from a second camera to the display associated with the user device, wherein the live video from the second camera captures a second field of view within the gaming location.

[00199] In an embodiment, a method for live gaming, comprises streaming live video output from a first camera to a display associated with a user device, wherein the live video output captures a first field of view comprising a player machine; receiving, from the user device, a selection to initiate a game at the player machine; switching from streaming live video output to streaming live gaming output from the player machine to the user device; and operating the player machine based on gaming input received at the user device.

[00200] In an embodiment, further comprising: reserving the player machine for exclusive use by at least one of a player, or a player account associated with the user device.

[00201] In an embodiment, wherein reserving prevents a second player from operating the player machine for a period of time.

[00202] In an embodiment, further comprising: providing a notification to the user device when the player machine is available for gameplay.

[00203] In an embodiment, wherein the first field of view comprises a plurality of player machines available for gameplay via the user device.

[00204] In an embodiment, further comprising: streaming live video output from a second camera to the display associated with the user device.

[00205] In an embodiment, further comprising: switching between the live video output from the first camera and the live video output from the second camera in response to input received at the user device.

[00206] In an embodiment, further comprising: switching between the live video output and the live gaming output.

[00207] In an embodiment, further comprising: receiving, from the user device, a selection to change the first field of view; and updating the live video output to stream a second field of view to the user device.

[00208] In an embodiment, wherein the second field of view is at least one of: a gaming area on the player machine, an alternate view of the player machine, a region within the first field of view, or a gaming floor.

[00209] In an embodiment, wherein the game is slots, poker, roulette, craps, blackjack, sic-bo, baccarat, or a casino game.

[00210] An embodiment for live gaming, comprising: a player machine; at least one camera capturing a gaming floor comprising the player machine; and an application operating on a user device, the application configured to at least: stream live video output from a first camera to a display associated with a user device, wherein the live video output captures a first field of view comprising the player machine; receive, from the user device, a selection to initiate a game at the player machine; switch from streaming live video output to streaming live gaming output from the player machine to the user device; and operate the player machine based on gaming input received at the user device.

[00211] In an embodiment, further comprising: a second camera capturing a second field of view; and the application being further configured to stream the second field of view in response to input received at the user device.

[00212] In an embodiment, wherein the second field of view is at least one of: a region within the gaming floor or a gaming area associated with the player machine.

[00213] In an embodiment, wherein the player machine is exclusively accessible by at least one of a player, or a player account associated with the user device.

[00214] In an embodiment, wherein the user device comprises at least one of a smartphone, personal computer, or a gaming device.

[00215] In an embodiment, wherein the player machine is a slot machine, a poker machine, or an individual gaming machine.

[00216] In an embodiment, wherein the player machine is located on a gaming floor comprising a plurality of player machines configured for remote gameplay.

[00217] An embodiment, comprising a non-transitory computer-readable storage medium comprising instructions stored thereon that cause a computing device to at least: stream live video output from a first camera to a display associated with a user device, wherein the live video output captures a first field of view comprising a player machine; receive, from the user device, a selection to initiate a game at the player machine; switch from streaming live video output to streaming live gaming output from the player machine to the user device; and operate the player machine based on gaming input received at the user device.

[00218] In an embodiment, wherein the instructions further cause the computing device to: update, in real time, the first field of view to a second field of view, based on player input received at the user device.

[00219] In an embodiment, wherein the second field of view is at least one of: a gaming floor, a gaming area on the player machine, or live video output from a second camera.

[00220] As previously noted, the various features and processes described above may be used independently of one another or may be combined in various ways. All possible combinations and sub-combinations are intended to fall within the scope of this disclosure. In addition, certain method or process blocks may be omitted in some implementations. The methods and processes described herein are also not limited to any particular sequence, and the blocks or states relating thereto can be performed in other sequences that are appropriate. For example, described blocks or states may be performed in an order other than that specifically disclosed, or multiple blocks or states may be combined in a single block or state. The example blocks or states may be performed in serial, in parallel, or in some other manner. Blocks or states may be added to or removed from the disclosed example embodiments. The example systems and components described herein may be configured differently than described. For example, elements may be added to, removed from, or rearranged compared to the disclosed example embodiments.

[00221] Conditional language used herein, such as, among others, "can," "could," "might," "may," "e.g.," and the like, unless specifically stated otherwise, or otherwise understood within the context as used, is generally intended to convey that certain embodiments include, while other embodiments do not include, certain features, elements, and/or steps. Thus, such conditional language is not generally intended to imply that features, elements and/or steps are in any way required for one or more embodiments or that one or more embodiments necessarily include logic for deciding, with or without author input or prompting, whether these features, elements and/or steps are included or are to be performed in any particular embodiment. The terms "comprising," "including," "having," and the like are synonymous and are used inclusively, in an open-ended fashion, and do not exclude additional elements, features, acts, operations, and so forth. Also, the term "or" is used in its inclusive sense (and not in its exclusive sense) so that when used, for example, to connect a list of elements, the term "or" means one, some, or all of the elements in the list.

[00222] The present disclosure describes particular embodiments and their detailed construction and operation. The embodiments described herein are set forth by way of

illustration only and not limitation. Those skilled in the art will recognize, in light of the teachings herein, that there may be a range of equivalents to the exemplary embodiments described herein. Most notably, other embodiments are possible, variations can be made to the embodiments described herein, and there may be equivalents to the components, parts, or steps that make up the described embodiments. For the sake of clarity and conciseness, certain aspects of components or steps of certain embodiments are presented without undue detail where such detail would be apparent to those skilled in the art in light of the teachings herein and/or where such detail would obfuscate an understanding of more pertinent aspects of the embodiments.

[00223] The terms and descriptions used above are set forth by way of illustration only and are not meant as limitations. Those skilled in the art will recognize that those and many other variations, enhancements and modifications of the concepts described herein are possible without departing from the underlying principles of the invention. The scope of the invention should therefore be determined only by the following claims and their equivalents.

What is claimed is:

1. A method for live gaming, comprising:
streaming video output from a camera to a display associated with a user device,
wherein the video output captures a first field of view of a gaming area comprising one or more play stations adapted for gameplay on at least one gaming machine;
receiving, from the user device, a selection to initiate an action involving the gaming machine; and
in response to the selection switching from streaming the first field of view to streaming a second field of view to the user device.
2. The method of claim 1 wherein said selection to initiate an action involving the gaming machine comprises carrying out at least one of the following at the user device:
selecting a certain play station of said one or more play stations that is adapted for gameplay on said gaming machine; and
zooming-in said first field of view to a certain play station of said one or more play stations that is adapted for gameplay on said gaming machine.
3. The method according to claim 2 wherein said streaming of the second field of view to the user device comprises at least one of the following:
streaming live gaming output of the gaming machine which is designated for display at said certain play station; and
streaming video output from a certain camera, being said camera or another camera, that is adapted to capture said second field of view such that it presents at least a part of a gaming interface of said certain play station at which live gaming output of the gaming machine at least partially appears.
4. The method according to claim 1, wherein the streaming of the second field of view comprises streaming live gaming output of the gaming machine to the user device.
5. The method according to claim 4, wherein the streaming of the live gaming output of the gaming machine comprises at least one of the following:
streaming live gaming output obtained from the gaming machine;

streaming video output from a certain camera, being the camera or another camera, with the second field of view at least partially capturing a live gaming output of the gaming machine and being narrower than the first field of view.

6. The method according to claim 4, wherein the second field of view includes an area of a certain play station adapted for game play on said gaming machine; and wherein said area of the certain play station includes at least part of a gaming interface suitable for gameplay on the gaming machine.

7. The method according to claim 6 wherein said area of the certain play station further includes a region of the play station in the surrounding of the gaming interface.

8. The method according to claim 1, wherein the selection to initiate an action further comprises a selection to initiate a game at the gaming machine.

9. The method according to claim 1,
wherein the second field of view presents a gaming interface suitable for gameplay on the gaming machine; and
wherein the method further comprises operating the gaming machine based on a second selection received from the user device within the gaming interface.

10. The method according to claim 1, further comprising receiving, from the user device, a selection to initiate a bet based on an outcome of a game played at the gaming machine by a local player operating the gaming machine in real-time.

11. The method according to claim 1, further comprising switching from streaming the second field of view to streaming the first field of view upon at least one of the following: an end of a gameplay cycle at said gaming machine; and receipt, from the user device, of a selection to quit the action involving the gaming machine.

12. The method of claim 1 wherein at least one gaming machine comprise at least one of the following:

at least one multiplayer gaming machine associated with a plurality of said play stations adapted to facilitate multiplayer gameplays at said multiplayer gaming machine; and one or more single player gaming machines each associated with one of said play stations.

13. A system, comprising:

an application operating on a computer device, the application configured to at least:

stream video output from a camera to a display associated with a user device, wherein the video output captures a first field of view of a gaming area comprising one or more play stations adapted for gameplay on at least one gaming machine;

receive, from the user device, a selection to initiate an action involving the gaming machine; and

in response to the selection switch from streaming the first field of view to streaming a second field of view to the user device.

14. The system of claim 13, wherein the application is further configured to at least:

receive, from a selection at the user device, a bet indicative of a predicted outcome of a game cycle associated with the gaming machine; and

initiate the game cycle based on an action performed by a player or dealer at the gaming location.

15. The system of claim 13, wherein the streaming of the second field of view comprises streaming live gaming output of the gaming machine to the user device.

16. A non-transitory computer-readable storage medium comprising instructions stored thereon that cause a computing device to at least:

stream video output from a camera to a display associated with a user device, wherein the video output captures a first field of view of a gaming area comprising one or more play stations adapted for gameplay on at least one gaming machine;

receive, from the user device, a selection to initiate an action involving the gaming machine; and

in response to the selection switch from streaming the first field of view to streaming the second field of view to the user device.

17. The non-transitory computer-readable storage medium of claim 16, further comprising instructions stored thereon that cause the computing device to at least:
operate the gaming machine based on input received at the user device.
18. The non-transitory computer-readable storage medium of claim 16,
wherein said first field of view comprises live video output of the gaming area, and
wherein said second field of view comprises live gaming output of the gaming machine.
19. The non-transitory computer-readable storage medium of claim 16,
wherein the second field of view comprises a gaming interface suitable for gameplay on the gaming machine; and
wherein the non-transitory computer-readable storage medium further comprises instructions to receive, from the user device, a selection within the gaming interface; and
provide instructions to operate the gaming machine according to said second selection.