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PULLTAB GAMING

Abstract

A prize-redemption device is configured to: receive, from a remote computing system, a set of game data for a pulltab game comprising a plurality of pulltab cards to exclusively pair the pulltab game with the prize-redemption device; scan a scannable prize-verification code on one of the plurality of pulltab cards; verify the pulltab card as a winning card by determining, based on the prize-verification code and the game data, that the pulltab game is paired with the prize-redemption device and/or activated for redemption on the device, and that the pulltab card has not already been redeemed; and, in response to verifying the pulltab card, dispensing a cash prize associated with the pulltab card.

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Background/Summary

PRIORITY CLAIM [0001] This U.S. Non-Provisional Utility Patent Application is a continuation-in-part of: [0002] U.S. Non-Provisional Utility patent application Ser. No. 18/774,631, filed on Jul. 16, 2024, and entitled “PULLTAB GAMING,” which is a continuation-in-part of: [0003] U.S. Non-Provisional Utility patent application Ser. No. 18/605,766, filed on Mar. 14, 2024, and entitled “PULLTAB GAMING,” which claims the priority benefit of: [0004] U.S. Provisional Patent Application No. 63/554,909, filed on Feb. 16, 2024, and entitled “PULLTAB GAMING,” to which: [0005] U.S. Non-Provisional Design patent application Ser. No. 29/934,702, filed on Mar. 27, 2024, and entitled “PULLTAB CARDS” also claims priority.
The entire contents of each of these applications are hereby incorporated by reference.

FIELD OF TECHNOLOGY
[0006] The present disclosure generally relates to card-based games and lottery-type games, including collectible trading cards and pulltab games.
BACKGROUND
[0007] “Pulltabs” (or “pull-tabs”) is an incredibly popular lottery-type game played in bars, pubs, breweries, and restaurants throughout the world. Known also by the names “pop-opens,” “break-opens,” and “pickle cards,” pulltabs involves a set of small cardboard cards (or “tickets”) available for purchase by customers of the hosting establishment. Often, a ticket booth staffed by a designated vendor (or “game operator”) manages sales of the cards, however, bartenders or other employees of the establishment can run the game as well. Typical pulltab cards include two or more cardboard layers coupled together-a bottom layer, featuring one or more randomized gaming entries; and a perforated top layer adhered overtop of the bottom layer to initially conceal the gaming entries. After purchase, the player can rip open a set of perforated strips (or “tabs”) on the top layer of the card in order to reveal the gaming entry concealed underneath. Upon revealing a “winning” gaming entry, the player can return the opened card to the vendor in exchange for a cash prize.
SUMMARY OF THE INVENTION
[0008] Disclosed herein are various example systems, devices, and methods for automating certain aspects of a pulltab game, including enhanced security measures to help preserve the integrity of the game.
[0009] In some examples, a pulltab-game system includes: a vending machine configured to retain and dispense a set of pulltab cards of a pulltab game; and a prize-redemption device configured to: scan a scannable code displayed on a pulltab card from the set of pulltab cards; determine, based on the scannable code, a prize-verification code for the pulltab card; verify, based on the prize-verification code, that the pulltab game to which the pulltab card belongs is paired with the prize-redemption device and/or activated for redemption on the prize-redemption device; identify, based on the prize-verification code, the pulltab card as a winning card; confirm, based on the prize-verification code, that the winning card has not already been redeemed; and output, based on the prize-verification code, a cash prize associated with the pulltab card or an indication of the cash prize. In some such examples, the prize-redemption device is further configured to collect and retain the pulltab card.
[0010] In some examples, a prize-redemption device of a pulltab-game system includes: a scanner

configured to scan a scannable code printed under a perforated tab on a pulltab card of a pulltab game; and processing circuitry configured to: determine, based on the scannable code, a prize-verification code for the pulltab card; verify, based on the prize-verification code, that the pulltab game is paired with the prize-redemption device and/or activated for redemption on the prize-redemption device; identify, based on the prize-verification code, the pulltab card as a winning card; confirm, based on the prize-verification code, that the winning card has not already been redeemed; and cause the prize-redemption device to output, based on the prize-verification code, a cash prize associated with the pulltab card or an indication of the cash prize. In some such examples, the processing circuitry is further configured to cause the prize-redemption device to collect and retain the pulltab card.

[0011] In some examples, a non-transitory, computer-readable medium encodes program instructions that, when executed by a processor of a prize-redemption device, cause the processor to: receive scan data indicative of a scannable code printed on a pulltab card of a pulltab game; determine, based on the scan data, a prize-verification code for the pulltab card; verify, based on the prize-verification code, that the pulltab game to which the pulltab card belongs is paired with the prize-redemption device and/or activated for redemption on the prize-verification device; identify, based on the prize-verification code, the pulltab card as a winning card; confirm, based on the prize-verification code, that the winning card has not already been redeemed; and cause the prize-redemption device to output, based on the prize-verification code, a cash prize associated with the pulltab card or an indication of the cash prize. In some such examples, the instructions further cause the processor to cause the prize-redemption device to collect and retain the pulltab card.

[0012] The aspects, features, advantages, benefits, and objects of the invention will become clear to those skilled in the art by reference to the following description, claims and drawings.

Description

BRIEF DESCRIPTION OF THE DRAWINGS

[0013] FIG. **1** is a conceptual diagram of an automated pulltab-game system, in accordance with techniques of this disclosure.

[0014] FIG. **2** is a conceptual diagram of a portion of the pulltab-game system of FIG. **1**, showing some example components thereof.

[0015] FIG. **3** is a perspective view of an example pulltab-card vending machine of the system of FIG. **2**.

[0016] FIG. **4**A is a front view of an example collectible pulltab card from the system of FIGS. **1** and **2**.

[0017] FIG. **4**B is a back view or rear view of the collectible pulltab card of FIG. **4**A, having a set of perforated tabs in a “sealed” or “closed” configuration.

[0018] FIG. **4**C is a back view of the pulltab card of FIGS. **4**A and **4**B, with its perforated tabs in an “unsealed” or “open” configuration.

[0019] FIG. **5**A is a front view of a first example prize-redemption device for the system of FIG. **2**.

[0020] FIG. **5**B is a front view of another example of the prize-redemption device of FIG. **5**A.

[0021] FIG. **6** is a front view or proximal-end view of an example ticket collector for the prize-redemption device of FIG. **5**B.

[0022] FIG. **7** is a perspective view of a second example prize-redemption device for the system of FIG. **2**.

[0023] FIG. **8** is a front view of a third example prize-redemption device for the system of FIG. **2**.

[0024] FIG. **9**A is a spreadsheet depicting a first example set of pulltab-game data for the system of FIG. **2**.

[0025] FIG. **9**B is a spreadsheet depicting a second example set of pulltab-game data for the system of FIG. **2**.
[0026] FIG. **10** is a conceptual block diagram of an example central computing system of the pulltab-game system of FIG. **2**.
[0027] FIG. **11**A is a screenshot of an example graphical user interface (GUI) of a website run by the central computing system of FIGS. **2** and **10**.
[0028] FIG. **11**B is a screenshot of an example GUI of a customized Customer-Relationship Management ("CRM") software application run by the central computer of FIGS. **2** and **10**.
[0029] FIGS. **12**A-**12**L are screenshots of example GUIs of the CRM application of FIG. **11**B.
[0030] FIG. **13** is a screenshot of another example GUI of the CRM application of FIG. **11**B.
[0031] FIG. **14** is a flowchart illustrating a method of running an automatic pulltab game.

DETAILED DESCRIPTION

[0032] In general, the present disclosure is directed to systems, devices, and techniques for automating one or more aspects of a pulltab game and, by extension, managing an expanded network of pulltab games all running concurrently, thereby enabling the games to be played significantly faster, cheaper, more accurately, more securely, and efficiently scaled to a wider audience. For instance, FIG. **1** is a conceptual diagram of an example automatic pulltab-game system **100**, in accordance with the techniques of this disclosure. As illustrated in FIG. **1**, system **100** includes a central manager **102**, and a plurality of game-hosting establishments **104**A . . . **104**N, such as bars, pubs, restaurants, gas stations, grocery stores, and the like.
[0033] Upon request by operators of the hosting establishments **104**, central manager **102** provides the establishments **104** with sets of specialized, collectible pulltab cards **106** such that the operators may host the pulltab games within their establishments **104**.
[0034] As described herein, central manager **102** manages one or more additional aspects of the pulltab games, such that, from the perspective of the hosting establishments **104**, the games are at least partially (and in some examples, fully) automated. Of particular note among the novel features detailed below is the integration of additional security features to ensure the integrity of the game.
[0035] FIG. **2** is a conceptual diagram of a portion of system **100** of FIG. **1**, specifically, illustrating an example relationship between central manager **102** and a hosting establishment **204** (e.g., any one of establishments **104** of FIG. **1**). As illustrated in FIG. **2**, central manager **102** includes a computer network **208** (or simply, "computer **208**") configured to execute a uniquely tailored Customer-Relationship Management ("CRM") software application **210**. System **100** further includes a card-vending machine **212** and a prize-redemption device **214**, both located within the premises of the hosting establishment **204**. In some examples (but not all examples), the vending machine **212** and the prize-redemption device **214** may be integrated within a shared housing, i.e., a single machine is configured with the functionality of both devices.
[0036] One example implementation of system **100** is as follows. An operator **205** associated with hosting establishment **204** uses CRM **210** to order a desired number of new pulltab games from central manager **102**. For instance, the operator **205** can use a personal computing device, such as a smartphone, personal computer, laptop, tablet, or in some examples, the prize-redemption device **214**, to remotely log into a secure portal with their private credentials to access CRM **210**. Through CRM **210**, the operator **205** can select from among a plurality of different "themes" categories of pulltab games, and order a desired number of games from each.
[0037] Upon receiving the order from operator **205**, central computer **208** runs or executes a game-generator module **211** to generate the requested games. Specifically, for each new pulltab game within the order from operator **205**, game-generator module **211** generates a set of graphical card images **216** and a counterpart set of game data **218**. As detailed further below, graphical card images **216** and game data **218** collectively include a number of unique security features that enable players to enjoy the game with little-to-no intervention from operator **205**, while simultaneously enhancing the game's integrity well beyond the current standard practices.

[0038] For instance, as detailed further below, game data **218** can include, for each winning pulltab card: a “game serial number” that indicates which pulltab game (which set of cards) the winning card belongs to; a “denomination code” that indicates an amount of prize money associated with the winning card; and either a “prize-verification code” or a “winning ticket ID,” both of which are used to distinguish between individual winning cards within the same gameset, through slightly different mechanisms (see FIGS. **9**A & **9**B).

[0039] After generating the graphical card images **216** and the counterpart game data **218**, the central computer **208** transmits the graphical card images **216** to a pulltab-card printer **220** via any suitable data-communication conduit, whether wired (e.g., via a local-area network (LAN)) or wireless (e.g., email transmitted via Wi-Fi). Card printer **220** can range from a suitable single-printer device (e.g., a standard inkjet/toner printer), up to a designated mass-printing facility, capable of generating a complete set of physical pulltab cards **106** based on the graphical card images **216**. In accordance with certain aspects of this disclosure, and as detailed further below, pulltab cards **106** may be constructed to provide dual gaming functionality, wherein a front side of each card corresponds to, for instance: a collectible trading-card game, a collectible game piece, or a coupon, and a back side of each card corresponds to the pulltab game. The set(s) of physical pulltab cards **106** are then shipped from the card printer **220** to the game-hosting establishment **204**. Upon delivery to the game-hosting establishment **204**, the operator **205** securely deposits the cards **106** within the pulltab-card vending machine **212**.

[0040] In accordance with the techniques of this disclosure, prize-redemption device **214** is fitted with a custom operating system (OS) **215**—i.e., program instructions stored in local memory and executed by a hard drive of the prize-redemption device **214**—configured to securely interface with CRM **210** of computing system **208**. Specifically, CRM **210** and OS **215** are configured to securely exchange data in order to “pair” a particular pulltab game (i.e., set of pulltab cards) with prize-redemption device **214**, and/or to “activate” the pulltab game for redemption of prizes via device **214**.

[0041] For instance, upon delivery of the pulltab cards **106** to the hosting establishment **204**, CRM **210** receives an indication (from the game operator **205** and/or the shipping company) that delivery is complete (equivalently, that the cards' order is designated as “delivered”). In response, CRM **210** generates and displays a game-activation link. The game operator **205** can log-in to CRM **210** and access the game-activation link to “pair” the new sets of pulltab cards **106** with the prize-redemption device **214** located at establishment **204**. That is, by using the game-activation link for a set of pulltab cards, the unique game serial number for that set of cards becomes eligible for redemption at just a single location **204**, preventing that set's winning cards from being fraudulently redeemed multiple times at different locations.

[0042] In some such examples, the game-activation link comprises a clickable “Push Game Data to Prize-Redemption Device” button. In response to game operator **205** clicking this link, the CRM software **210** securely transmits game data **218**, via an API call, to prize-redemption device **214**. Prize-redemption device **214** receives the game data **218** and stores the data in a local digital memory (e.g., its hard drive).

[0043] In other examples in which the operator **205** uses a mobile computing device (e.g., smartphone) to access CRM **210** and click the game-activation link, CRM **210** then displays a unique, scannable game-activation code, such as a quick-response (QR) code or barcode (see FIG. **13**). The scannable activation code encodes: (1) a URL or API endpoint; (2) a unique game serial number for each new pulltab game (i.e., for each new set of cards); and (3) an authentication token or other secure credentials. The operator **205** can use an external optical code scanner of prize-redemption device **214** (detailed further below) to scan the activation code displayed on their mobile device. The prize-redemption device **214** extracts the URL and credentials from the activation code, and then makes a secure API request to the specified URL. CRM **210** receives the API request, and in response, securely transmits game data **218** via another API call, to prize-

redemption device **214**. Prize-redemption device **214** receives the game data **218** and stores the data in a local digital memory (e.g., its hard drive).

[0044] In other examples, operator **205** uses a personal computing device or point-of-sale (POS) terminal to access CRM **210** and click the game-activation link, CRM **210** then displays the unique scannable activation code, which the operator **205** can then print onto ticket-size paper or "sales receipt" paper (see FIG. **7**). The operator **205** can then insert this paper ticket into an integrated ticket-collector-and-code-scanner of prize-redemption device **214** (detailed further below) to scan the activation code displayed on the paper. The prize-redemption device **214** extracts the URL and credentials from the activation code, and then makes a secure API request to the specified URL to download the game data **218** to a digital memory (e.g., hard drive) within the prize-redemption device **214**.

[0045] In addition to, or instead of, pairing a pulltab game with a redemption device via wireless data transfer, in some cases, the operator **205** can manually upload the game data **218** into prize-redemption device **214**, such as by inserting a USB flash drive, SD card, or other suitable removable digital storage volume, into the device **214**, and copying the contents into the device's local memory.

[0046] In some examples, the newly "paired" pulltab game automatically becomes ready for active play (i.e., for redemption of prizes) immediately upon successful transfer of the game data **218** into the local memory of the prize-redemption device **214**. In other examples, even after pairing the new pulltab game(s) with a particular prize-redemption device **214** (i.e., storing game data **218** within the local memory), the game(s) remain in a "dormant" status by default, until manually "activated" by the game operator **205**. For instance, in some examples, upon pairing the game data **218** with the prize-redemption device **214**, the graphical user interface (GUI) of the prize-redemption device **214** may then display a "Complete Activation," "Confirm Activation," or "Finalize Activation" prompt for the operator **205**, thereby ensuring end-user control over the game-activation process with multiple layers of security integrated directly into the game.

[0047] In other examples, some or all of game data **218** is not stored locally within the digital memory of prize-redemption device **214** in advance of gameplay. Instead, prize-redemption device **214** can be configured to make on-demand calls to computing system **208** so that CRM **210** can remotely verify winning pulltab cards and transmit the results back to prize-verification **214** device to award the associated prizes. In some such examples, the game serial number may be paired with the prize-redemption device **214** for an initial verification check, while the rest of game data **218** is stored remotely in computing network **208**.

[0048] With the physical cards **106** secured within card-vending machine **212**, with game data **218** (e.g., game serial numbers) paired with prize-redemption device **214**, and (where applicable) with the game manually "activated" by the operator **205**, players **222** can begin playing the pulltab games by interacting with card-vending machine **212**. FIG. **3** shows an example implementation of vending machine **212** that includes a lockable card safe **324**, a cash-deposit slot **326**, a plurality of selectable buttons **328**A-**328**E, and a pulltab-card-output slot **330**.

[0049] In the illustrative, non-limiting example depicted in FIG. **3**, lockable card safe **324** contains four columns or stacks **332**A-**332**D of pulltab cards, as viewed through transparent window **334**. Each column or stack **332** corresponds to one of four different pulltab games running simultaneously. For instance, stack **332**A includes pulltab cards available for $1 each, as indicated by button **328**A. Stack **332**B includes pulltab cards available for $2 each, as indicated by button **328**B. Stack **332**C includes pulltab cards available for $5 each, as indicated by button **328**C. And stack **332**D includes pulltab cards available for $10 each, as indicated by button **328**D. In other examples, lockable card safe **324** can retain pulltab cards from more, fewer, or different games. For instance, in a different example, columns **332**A and **332**B could include pulltab cards from the same game, in which case buttons **328**A and **328**B would display the same dollar amount for purchase.

[0050] During use, a player **222** (FIG. **2**) initiates a transaction by depositing cash into the cash-deposit slot **326**. Upon receiving cash through cash-deposit slot **326**, one or more of buttons **328**A-**328**D may be configured to illuminate, indicating which stacks **332** of pulltab cards the player **222** can select from. For instance, if the player **222** deposited $5, then buttons **328**A, **328**B, and **328**C would illuminate, but not button **328**D, as the player **222** did not deposit enough cash to purchase a $10 pulltab card from stack **332**D. In that case, the player **222** can select from any combination of buttons **328**A-**328**C to purchase a number of pulltab cards collectively adding up to $5. As a few examples, the player **222** could select button **328**A five times; or the player could select button **328**A three times and button **328**B one time; or the player **222** could select button **328**C one time.
[0051] Vending machine **212** also includes an “ALL” button **328**E. By selecting this button, the player **222** indicates to vending machine **212** that they would like to select “all” of their cards from a common stack **332**. For instance, rather than pressing button **328**A five times in a row, the player **222** could press the “ALL” button **328**E, and then press button **328**A, and vending machine **212** will automatically begin grabbing pulltab cards drawn from stack **332**A, and dispensing each pulltab card **336** outward through card-output slot **330**, until either (1) the player's cash deposit is spent, or (2) the player **222** aborts the dispensing by pressing a different button **328**. Other examples of vending machine **212** can include additional and/or different types of user-input devices other than pressable buttons **328**, such as a digital touchscreen, a joystick, a scroll wheel, or any other suitable mechanism for indicating the player's card-stack selection to vending machine **212**.
[0052] FIGS. **4**A-**4**C depict an illustrative, non-limiting example of a pulltab card **336** (FIG. **3**) that may be dispensed from vending machine **212**. Pulltab card **336** of FIGS. **4**A-**4**C is one example of such a card belonging to a larger set of pulltab cards **106** (FIG. **1**) associated with a common pulltab game.
[0053] As referenced above, pulltab cards of the present disclosure can provide dual gaming functionality. For instance, as shown in FIG. **4**A, a front side (or “first” side) **438**A of pulltab card **336** corresponds to a collectible trading-card game, e.g., featuring graphical imagery associated with an athlete, an anime character, or any other suitable object that belongs to a larger collection of similar (but non-identical) objects.
[0054] Concurrently, as shown in FIGS. **4**B and **4**C, a back side (or “second” side) **438**B of pulltab card **336** corresponds to a pulltab game, in accordance with system **100** described throughout this disclosure. Accordingly, in some examples of the present disclosure, each pulltab card **336** is formed from two layers of material (e.g., cardboard, or the functional equivalent). During manufacture of each card **336**, printer **220** (FIG. **2**) prints graphical imagery onto both surfaces **440**A, **440**B of a first cardboard layer, and onto just one surface **440**C of the second cardboard layer, and then the two cardboard layers are adhesively assembled into the card **336**. For instance, as depicted in FIG. **4**A, a first printed surface **440**A of a first cardboard layer constitutes the “collectible” front side **438**A of the assembled pulltab card **336**. As depicted in FIGS. **4**B and **4**C, the second surface **440**B of the first cardboard layer, and the first surface **440**C of the second cardboard layer, collectively form the “pulltab-game” back side **438**B of the assembled card **336**.
[0055] As shown in FIGS. **4**B and **4**C, the outer surface **440**C of the second cardboard layer of pulltab card **336** defines one or more perforated tabs **442**A-**442**E. In this non-limiting example, back-outer surface **440**C defines five vertically aligned perforated tabs **442**; other examples of pulltab card **336** can include more than five tabs or fewer than five tabs **442**, as desired. As detailed further below, the back-outer surface **440**C further includes an outer scannable code **444**, such as a quick-response (“QR”) code, a barcode, or the like.
[0056] The second cardboard layer is adhered onto the back surface **440**B of the first cardboard layer, such that back-inner surface **440**B of the first cardboard layer and the back-outer surface **440**C of the second cardboard layer face the same direction, i.e., opposite from the direction of the front surface **440**A of the first cardboard layer.

[0057] In the example shown in FIG. **4**C, the player **222** (FIG. **2**) has ripped open all five perforated tabs **442**A-**442**E of the second cardboard layer, thereby revealing certain portions of the printed back surface **440**B of the first cardboard layer thereunder. Specifically, the printed back surface **440**B of the first cardboard layer includes one or more pulltab-game entries **446**A-**446**D, with each game entry **446** strategically positioned underneath a respective perforated tab **442**A-**442**D of the second cardboard layer.

[0058] For instance, upon tearing open the first perforated tab **442**A, the player **222** discovers that the game entry **446**A concealed underneath the tab **442**A includes a particular sequence of icons **448** (depicted here as three consecutive football-shaped icons **448**), which, under the rules of the corresponding pulltab game, constitutes a winning game entry **446**—thus, pulltab card **336** is a winning card.

[0059] At the time each pulltab game is originally generated, central computer **208** (FIG. **2**) automatically identifies all of the winning game entries for that game, and graphically marks the winning game entries with a horizontal line **450** (which printer **220** prints onto the back surface **440**B of the first cardboard layer), in order to simplify and expedite the game for player **222**.

[0060] Additionally, upon generating a winning game entry **446**A, computing device **208** determines a cash prize associated with the winning sequence of icons **448**, and generates a numerical cash-prize indicator **452** (or "denomination indicator") overtop of the winning game entry **446**A (or, in other examples, overtop of a different (non-winning) game entry **446**B-**446**D on the same card **336**).

[0061] Even further, in accordance with the techniques of this disclosure, computing device **208**, upon generating a winning game entry **446**A, is configured to designate the winning card **336** with a unique identifier—a "prize-verification code"—thereby enabling automation of a subsequent portion of the game in which player **222** collects their cash prize. In FIG. **4**C, the prize-verification code is printed onto the back surface **440**B of the first cardboard layer and strategically concealed beneath the fifth perforated tab **442**E, and includes both a numeric (or alphanumeric) prize-verification code **454**, and an (inner) machine-scannable code **456**, such as a barcode, QR code, etc., that digitally encodes the prize-verification code **454**.

[0062] In the example shown, numeric prize-verification code **454** and scannable prize-verification code **456** occupy the space on the printed back surface **440**B of the first cardboard layer that would otherwise be occupied by a fifth game entry. But since pulltab card **336** is already a winning card, game entries other than the winning game entry **446**A are not necessary to be included on the same card.

[0063] Prize-verification code **454** is shown in FIG. **4**C as an eleven-digit numeric sequence, although other sequences are also contemplated, such as a twelve-digit numeric sequence or a six-or-seven character alphanumeric sequence (as just three examples). In some examples, the prize-verification code **454** is mapped, within game data **218** (FIG. **2**), to a distinct "game serial number" **458** (FIG. **4**A) that indicates which pulltab game the card **336** belongs to upon generation of game data **218** by central computer **208** (see FIG. **9**A).

[0064] In other examples, the prize-verification code **454** encoded by the scannable code **456** is a fourteen-digit numeric sequence in which game data **218** is represented by groups of adjacent digits. For instance, the first (i.e., left-most) six digits of the prize-verification code **454** can be the "game serial number" **458**; the next (i.e., middle) four digits of the prize-verification code can be the "denomination code" indicating an amount of prize money; and the last (i.e., right-most) four digits of the prize-verification code **454** can be a "winning-ticket ID" used to distinguish between cards from the same gameset that also share the same denomination code (see FIG. **9**B). That is, a single gameset may include multiple winning cards that award the same amount of prize money. Within each of these same-game-same-prize subsets, every winning card is assigned a different winning ticket ID (e.g., 0001, 0002, 0003, 0004, . . .) to identify and track individual cards as they are redeemed, thereby preventing the same card from being redeemed more than once.

[0065] After tearing open the fifth perforated tab **442**E to reveal the inner scannable code **456**, the winning player **222** can then bring the winning card **336** to the local prize-redemption device **214** to verify the winning card **336** and claim their prize. FIGS. **5**A, **5**B, **7**, and **8** depict some example implementations of prize-redemption device **214**.

[0066] For instance, FIG. **5**A is a front view of a first example prize-redemption device **514**A in the form of a "kiosk" machine. As shown in FIG. **5**A, prize-redemption kiosk **514**A includes an integrated, exterior-facing (or "external") code scanner **562**A (i.e., an optical scanner, or the functional equivalent). As referenced above, the same external code scanner **562**A can perform two separate functions. First, the game operator **205** can use the external code scanner **562**A to scan an activation code that causes the kiosk **514**A to wirelessly download the set of game data **218** for the current pulltab game, after which the operator **205** can manually "activate" or finalize activation of the game via the user interface **564**. Second, the player **222** can use the external code scanner **562**A to scan the scannable verification code **456** on their winning pulltab card **336**.

[0067] Upon detecting a valid scannable code **456** (FIG. **4**C) placed in front of the scanner **562**A, prize-redemption kiosk **514**A is configured to extract the numeric prize-verification code **454** encoded by the scannable code **456**, and either (1) perform card verification locally by comparing the prize-verification code **454** to the game data **218** stored in its internal digital memory, or (2) transmit the prize-verification code **454** via the Internet to central computer network **208** (FIG. **2**), whereby CRM **210** compares the code **454** to game data **218** and replies with a "valid" or "invalid" indication.

[0068] In accordance with the techniques of this disclosure, this advanced-security card-verification process includes the following steps: (1) identifying the pulltab card **336** as a "winning" card by locating the prize-verification code **454** (or winning-ticket ID) within the set of game data **218**; (2) determining, based on the prize-verification code **454** and the game data **218**, that the winning card has not already been redeemed (i.e., the associated cash prize has not already been awarded); and (3) determining, based on the game serial number **458**, that the pulltab game (i.e., the set of pulltab cards) to which this card belongs is paired with this particular prize-redemption device kiosk **514**A at this location and/or that the game operator **205** has manually activated (i.e., confirmed, completed, or finalized activation of) this set of pulltab cards for active play.

[0069] If every step of the verification process completes successfully, the prize-redemption kiosk **514**A can identify the corresponding denomination code within game data **218** and then automatically dispense the indicated amount of prize money from cash dispenser **566**.

[0070] Additionally, the prize-redemption device **514**A (and/or CRM **210**) then automatically modifies the game data **218** to prevent the same pulltab card **336** from being redeemed a second time. In some examples, the prize-redemption device **514**A can add a "REDEEMED" indicator next to the relevant entry within game data **218**, such that step (2) of the verification process will fail in the future. Equivalently, the prize-redemption device **514**A can change an existing "UNREDEEMED" indicator within the game data **218** into a "REDEEMED" indicator. Alternatively, the prize-redemption device **514**A can delete the winning card's entire entry from the game data **218**, such that step (1) of the verification process will fail in the future. In these examples, step (2) of the verification process is the same as step (1), and thus, is performed simultaneously.

[0071] In some examples, the prize-redemption kiosk **514**A (or any other prize-redemption device **214** of this disclosure) is configured to automatically log every prize-verification attempt (whether successful or unsuccessful) for subsequent auditing, reporting, and/or analysis. Similarly, the prize-redemption devices **214** of this disclosure may be configured to log every prize-redemption transaction (i.e., prize dispensing) for subsequent auditing, reporting, and/or analysis.

[0072] In some examples, prize-redemption kiosk **514**A can include dual (or even higher-order) functionality. For instance, prize-redemption kiosk **514**A can be fully functional as an automated

teller machine (ATM), and/or a prize-redemption kiosk for other types of games, such as poker and other games of chance.

[0073] FIG. **5**B depicts another prize-redemption kiosk **514**B, which is an example of prize-redemption kiosk **514**A of FIG. **5**A, apart from any differences explicitly noted herein. In particular, unlike the external code scanner **562**A of prize-redemption kiosk **514**A, the optical code scanner **562**B of prize-redemption kiosk **514**B is an integral component of a mechanical ticket-collector-and-scanner **568** (for brevity, ticket collector **568**) contained entirely within the housing of the kiosk **514**B. A non-limiting example of ticket collector **568** is shown in FIG. **6**A.

[0074] In general, ticket collector **568** is configured to intake, scan, and securely retain pulltab cards that have been purchased and played (i.e., that have had their tabs **442** opened). For instance, player **222** can insert their pulltab card **336** into the proximal (or "input") slot **570**A, whereby the internal code scanner **562**B reads the scannable code **456** and and transmits the scan data to the primary hard drive of the kiosk **514**B (or other relevant computing device) to determine the corresponding prize-verification code **454** for the pulltab card **336**, and for subsequent verification based on the prize-verification code **454**, as described above.

[0075] If the pulltab card **336** is successfully verified by the hard drive of the kiosk **514**B, ticket collector **568** receives a corresponding digital acknowledgement signal from the hard drive and, in response, ticket collector **568** ejects the pulltab card **336** out the distal (or "rear") output slot **570**B, whereby the pulltab card **336** is securely retained within a receptacle fully interior to the kiosk **514**B, i.e., where it cannot be retrieved by the player **222**. Conversely, if the pulltab card **336** fails any step of the verification process described above, ticket collector **568** "rejects" the pulltab card by ejecting the card backward out through the proximal slot **570**A.

[0076] FIG. **7** is a front perspective view of a third example prize-redemption device **214** in the form of a "point-of-sale" ("POS") terminal **714**. As shown in FIG. **7**, POS **714** includes an integrated and/or handheld code scanner **762** (i.e., an optical scanner, or the functional equivalent). Upon detecting a valid scannable code **456** (FIG. **4**C) placed in front of the scanner **762**, POS **714** is configured to extract the prize-verification code **454** encoded by the scannable code **456**, and either (1) verify the pulltab card locally using its internal processing circuitry (as described above), or (2) transmit the prize-verification code **454** via the Internet to central computer network **208** (FIG. **2**), whereby CRM **210** verifies the card and replies with a "valid" or "invalid" indication.

[0077] Additionally or alternatively, POS **714** can include a user interface **764**, such as a digital touchscreen displaying a graphical user interface (GUI), that enables player **222** to manually enter the prize-verification code **454** from the winning card **336**. In some examples, when POS **714** identifies a match between the prize-verification code **454** and game data **218**, POS **714** can indicate on display **764** an amount of prize money for the operator **205** to dispense from cash register **766**. In other examples, POS **714** may print, from ticket printer **772**, a paper ticket **773** with a scannable code **771** indicating an amount of prize money, in which case the player **222** can then use a separate machine (such as prize-redemption kiosks **514**A/**514**B) to scan the paper ticket **773** and automatically dispense the corresponding cash prize. In either case, POS **714** is configured to automatically modify the game data **218** to prevent the same pulltab card from being redeemed a second time, as described above.

[0078] FIG. **8** is a front perspective view of a fourth example prize-redemption device **214** in the form of a mobile (or "handheld") scanner device **814**. Two non-limiting examples of such a device are the "Sonim Scan XP8" and the "Sonim Scan XP10" manufactured by Sonim Technologies, Inc., of San Diego, California.

[0079] As shown in FIG. **8**, mobile scanner **814** includes an integrated code scanner **862** (i.e., an optical scanner, or the functional equivalent). Upon detecting a valid scannable code **456** (FIG. **4**C) placed in front of the scanner **862**, mobile scanner **814** is configured to extract the prize-verification code **454** encoded by the scannable code **456**, and either (1) verify the pulltab card locally by comparing the prize-verification code **454** to game data **218** stored in the internal digital memory of

mobile scanner **514**C, or (2) transmit the prize-verification code **454** via the Internet to central computer network **208** (FIG. **2**), whereby CRM **210** verifies the card and replies with a "valid" or "invalid" indication. Additionally or alternatively, mobile scanner **814** can include a user interface **864**, such as a digital touchscreen displaying a graphical user interface (GUI), that enables an authorized game host to manually enter the prize-verification code **454** from the winning card **336**.

[0080] In some examples, when mobile scanner **814** identifies a match between the prize-verification code **454** and game data **218**, mobile scanner **814** can indicate on display **864** an amount of prize money for the authorized game host to provide to the player **222**, such as from cash register **766** of FIG. **7**. In other examples, mobile scanner **814** may print, from an integrated ticket printer (not shown) or from a physically distinct ticket printer **772** (FIG. **7**), a paper ticket **773** with a scannable code indicating an amount of prize money, in which case the player **222** can then use a separate machine (such as prize-redemption kiosks **514**A/**514**B) to scan the ticket **773** and automatically dispense the corresponding cash prize. In any case, upon redemption, mobile scanner **814** is configured to automatically modify the game data **218** to prevent the same pulltab card from being redeemed a second time, as described above.

[0081] FIG. **9**A is a spreadsheet **974**A illustrating a first example set of game data **918**A (e.g., game data **218** of FIG. **2**) that could be generated by game generator **211** running on computing system **208** and, in some examples, uploaded to the local memory of a prize-redemption device **214** to pair the associated set of pulltab cards **106** with that device, and/or to activate the set of cards for redemption via that device **214**. In this example, game data **918**A is formatted as a Comma-Separated Values (".csv") file with at least four distinct data parameters (i.e., columns) for each entry (i.e., row), wherein each entry/row represents a different winning pulltab card.

[0082] In this particular example, column "A" contains the unique game serial number **458** (FIG. **4**A) assigned to each pulltab game (i.e., set of pulltab cards), which, in this example, is "888888." Column "B" contains a "denomination code" **952**A (e.g., prize-amount indicator **452** of FIG. **4**C), i.e., a monetary value, in units of U.S. dollars, of the cash prize for the winning pulltab card represented by that particular row. For instance, in the value "0001D.pdf," the number "0001" represents a prize amount of $1, and the letter "D" indicates which game entry **446** (e.g., the fourth game entry **446**D concealed underneath the fourth perforated tab **442**D) was the winning game entry on the card **336**.

[0083] Column "C" contains the prize-verification code **954**A (e.g., the prize-verification code **454** of FIG. **4**C) for a winning pulltab card **336** (which is also encoded by the inner scannable code **456**), in order to associate the other three columns with one particular winning card. Finally, column "D" encodes the artwork-template ID **460** (FIG. **4**A), which is used by printer **220** (FIG. **2**) when printing physical cards **106**.

[0084] As referenced above, when a winning player **222** collects a cash prize by scanning the inner scannable code **456** on the code scanner **562**A/**562**B/**762**/**862** of an appropriate prize-redemption device **214**, the prize-redemption device **214** and or CRM **210** can be configured to automatically store an indication that the associated winning card has been redeemed so that the same prize cannot be collected multiple times. For instance, in some examples, game data **918**A can include a fifth column "E" (not shown) that includes a "REDEEMED" indicator or an "UNREDEEMED" indicator for each entry, which the prize-redemption device **214** automatically updates upon redemption. Additionally or alternatively, upon redemption of a winning pulltab card, the prize-redemption device **214** and/or CRM **210** can modify the relevant entry in some way, such as by truncating or deleting the prize-verification code **954**A, or even the entire row, such that subsequent queries for the prize-verification code **454** will fail.

[0085] FIG. **9**B is a spreadsheet **974**B illustrating a second example set of game data **918**B (e.g., game data **218** of FIG. **2**) that could be generated by game generator **211** running on computing system **208**, and, in some examples (but not all examples) uploaded to local memory of a prize-redemption device **214** to pair the associated set of pulltab cards **106** with that device and/or to

activate the cards for redemption on that device. In this example, game data **918**B is formatted as a .csv file with just one single data parameter (i.e., column "A") for each entry (i.e., row), wherein each entry/row represents a different winning pulltab card.

[0086] In the example of FIG. **9**B, each entry/row within game data **918**B contains the prize-verification code **954**B (e.g., prize-verification code **454** of FIG. **4**C) encoded by the inner scannable code **456** printed on the respective winning pulltab card. Specifically, each prize-verification code **954**A is a fourteen-digit number, wherein: (1) the first six digits (e.g., "888888") are the game serial number **458**; (2) the next four digits are the denomination code **952**B (e.g., prize-amount indicator **452** of FIG. **4**C) indicating an amount of prize money in units of U.S. dollars; and (3) the last four digits are the winning-ticket ID **955** used to distinguish between individual cards with the same game serial number and the same denomination code.

[0087] FIG. **10** is a conceptual block diagram of an example implementation of central computer **208** of FIG. **2**. Although depicted in FIG. **10** as a single functional unit, in practice, central computer **208** can be, or can include, multiple communicatively-connected computing devices, e.g., each having a unique processor (or "processing circuitry") **1076** and/or a digital memory **1078**. For instance, central computer **208** can be, or can include, a cloud-based server and/or one or more "local" devices. Memory **1078** encodes one or more software applications ("apps" or "modules") for generating and managing pulltab games for a network of customers or clients, such as hosting establishments **104**A-**104**N of FIG. **1**.

[0088] For instance, as shown in FIG. **10**, central computer **208** is configured to run or execute a pulltab-game generator module **211**. When executed, game generator **211** is configured to automatically generate a new pulltab game that includes a set of game data **218** (e.g. a .csv file **974**A/**974**B), and corresponding digital, graphical pulltab-card images **216** (e.g., a .jpg, .bmp, .webp file etc.), each featuring randomized sets of game entries **446** (FIG. **4**C).

[0089] Central computer **208** is further configured to host (e.g., store in memory **1078**) and run (e.g., execute) a public-facing website **1088**, accessible via the Internet. Players **222** can access website **1088** with, for instance, a personal computer, laptop, smartphone, smartwatch, or tablet, in order to learn more information about a pulltab game, or in some cases, to enroll in an additional bonus game.

[0090] As one example, a winning player **222** can use their smartphone to scan the outer scannable code **444** (FIG. **4**B) on the backside **438**B of their winning pulltab card **336**. The outer scannable code **444** will direct their smartphone's mobile browser to website **1088**, where player **222** can enter a "second-chance" drawing to win an additional prize.

[0091] FIG. **11**A is a screenshot of an example graphical user interface (GUI) **1190**A of public-facing website **1088** of FIG. **10**, and FIG. **11**B is a screenshot of an example GUI **1190**B of a corresponding page of a uniquely tailored Customer-Relationship-Management (CRM) software application **210** run by central computer **208** of FIGS. **2** and **10**. As shown in FIG. **11**A, GUI **1190**A enables a winning player **222** to submit their name, contact info, and the prize-verification code **454** from their winning card **336** in order to be entered into a periodic, randomized "second-chance" drawing to win an additional prize. The drawing can occur weekly, monthly, semi-annually, or annually, as a few illustrative examples.

[0092] The public-facing website **1088** is configured to interface with CRM **210**. For instance, as shown in FIG. **11**B, CRM **210** is configured to receive, via website **1088**, the second-chance drawing entry data from winning player **222**. Additionally, CRM **210** can retrieve and consult game data **218** in order to verify the winning player's prize-verification code **454** and confirm their entry into the next drawing. Equivalently, game generator **211** can automatically transmit game data **218** to CRM **210** every time it generates a new pulltab game. In some examples, CRM **210** is configured to run all drawing entries through a validation process by matching each player's entry (e.g., game serial number **458**, theme name of pulltab game, and prize-verification code **454**) with game data **218** stored in memory **1078**. If CRM **210** validates a player's entry, the player's entry

receives a positive-validation indicator within GUI **1190**B, such as by displaying that player's entry in green.

[0093] In one non-limiting, illustrative example, CRM **210** can be configured to help run the drawing annually by randomly selecting among all the player entries submitted during the previous calendar year (i.e., January 1.sup.st through December 31.sup.st). The winner of the drawing can be contacted directly using the player's entry data, and announced publicly on website **1088**. Through CRM **210**, every drawing entry is assigned a drawing date to help differentiate between different promotions (e.g., subsequent years' drawings).

[0094] In some examples, CRM **210** can also use the player's drawing-entry data to keep track of the number of redeemed winning pulltab cards for each game, as they are purchased and opened over time. Such data can help inform pulltab-game inventory management, another function performed by CRM **210**. For instance, central game manager(s) **102** (FIG. **1**) can use CRM **210** to help decide whether to either increase or decrease the rate at which new pulltab games are automatically generated under a subscription service (rather than on-demand, by purchase order), based on the rate at which winning cards **336** are purchased and redeemed.

[0095] FIGS. **12**A-**12**L are a series of screenshots **1292**A-**1292**L, respectively, showing an example process for how an authorized user (e.g., a game operator **205** associated with a hosting establishment **104**/**204**) with an appropriate prize-redemption device **214** (e.g., POS **714** of FIG. **7** and/or mobile scanner **814** of FIG. **8**) can access CRM **210** (via website **1088**) to redeem a winning pulltab card **336** on behalf of a player **222**. For instance, the operator **205** can open a web browser on the prize-redemption device **214** and use their personalized login credentials to access an instance of CRM **210**, an example of which is shown in FIG. **12**A. As shown in FIG. **12**B, the operator **205** can navigate to “Winner Reporting” and select “Redeem Ticket.” Once the GUI **1292**C of FIG. **12**C is displayed on the electronic display **764**/**864**, the operator **205** can use the optical scanner **762**/**862** to scan the scannable code **456** on the winning pulltab card **336** (FIG. **12**D), and then select “Check” on the electronic display **764**/**864** to verify the corresponding prize-verification code **454**. In the case of multiple scannable codes, the operator **205** can scan all of the codes prior to selecting “Check” (FIG. **12**E) in order to verify the validity of all of the pulltab cards simultaneously (FIG. **12**F).

[0096] Once the validity of the pulltab cards has been checked, the operator **205** can select “Redeem” in order to redeem the winner(s) and pay out the corresponding cash prize(s) to the player(s) **222**, as shown in FIG. **12**G. As shown in FIG. **12**H, CRM **210** is configured to automatically generate a redemption record for each redeemed pulltab card—that is, the corresponding prize-verification codes **454** will be marked as “redeemed” within the records of CRM **210**. In this way, CRM **210** prevents unscrupulous players from attempting to redeem the same winning pulltab card more than once. As shown in FIG. **12**I, by selecting “View,” the operator **205** can review additional details for all of the winning pulltab cards redeemed up to that point.

[0097] As shown in FIG. **12**J, CRM **210** enables the game operator **205** to calculate an amount of profit generated through sales of the pulltab cards for a particular period. For instance, the operator **205** can navigate to “Deal Profit” and select “Add New.” The operator **205** can then select a particular pulltab game for which to record profit. CRM **210** will automatically generate a corresponding profit record, which the operator **205** can then use to periodically record income generated from sales of the cards. That is, CRM **210** enables the operator **205** to determine the amount of profit, either by manually entering prize redemptions (i.e., cash payouts for winning pulltab cards) when the prize-redemption device **214**/**514**A/**514**B/**714**/**814** verifies the ticket using game data **218** stored in local memory, and/or by computing total prizes redeemed online through CRM **210** via the process shown in FIGS. **12**A-**12**H.

[0098] As shown in FIGS. **12**K and **12**L, the operator **205** can further use CRM **210** to determine the income/profit from pulltab-card sales for a particular period of time. For instance, the operator **205** can select “Add New Period” and then choose a redemption period, input the UPC of the game

to display, and then manually enter the number of pulltab cards sold (CRM **210** will then automatically calculate the gross sales as the number of cards sold times the price per card). Upon clicking "Save," CRM **210** will calculate and display the profit for the selected time period. Through CRM **210**, the operator **205** is able to select and view as many profit-and-loss periods as desired—the system will continue aggregating total winning-card redemptions (YTD vs. selected period) and total card sales (YTD vs. selected period) until all of the pulltab cards for the selected game have been sold and/or all of the winning pulltab cards from that game have been redeemed.

[0099] FIG. **13** is a screenshot of another example GUI **1392** of CRM **210**, showing an implementation of the game-activation links **1394**, as described above with respect to FIG. **2**. In this example, clicking each game-activation link **1394** either displays or downloads (for subsequent display) a unique, scannable game-activation QR code. The game-activation QR code encodes: (1) a URL or API endpoint; (2) the unique game serial number **458** for each new pulltab game (i.e., for each new set of cards); and (3) an authentication token or other secure credentials. A game operator **205** can use the external scanner **562**A/**762**/**862** of a prize-redemption device **214** to scan the game-activation code displayed on their mobile device. The prize-redemption device **214** extracts the URL and credentials from the activation code, and then makes a secure API request to the specified URL to download the game data **218** to a digital memory (e.g., hard drive) within the prize-redemption device **214**.

[0100] FIG. **14** is a flowchart illustrating a method or process **1400** for automating one or more aspects of a pulltab game. Process **1400** is described from the perspective of prize-redemption kiosk **514**A of FIG. **5**A.

[0101] At Step **1402**, prize kiosk **514**A receives a set of game data **218** for a new pulltab game, either locally, e.g., from a removable digital storage inserted into the kiosk, or remotely, e.g., via the Internet from a central computer **208**. For instance, in a first example, after an order of one or more pulltab games is designated as "delivered" to a particular hosting establishment **204**, an authorized game operator **205** associated with the establishment **204** can log in to the CRM software **210** and click an activation link, such as a "Push Game Data to Prize-Redemption Kiosk" button. In response, the CRM software **210** securely transmits game data **218**, via an API call, to a digital memory (e.g., hard drive) within the prize-redemption kiosk **514**A. Upon receipt of the game data **218** at the kiosk **514**A (Step **1404**), the operator **205** can then manually "activate" the particular pulltab game via a user interface of the kiosk **514**A, thereby ensuring end-user control over the game-activation process.

[0102] In a second example, clicking the activation link **1394** (FIG. **13**) displays a unique scannable activation code (e.g., QR code) that encodes: (1) a URL or API endpoint; (2) a unique game serial number **458**; and (3) an authentication token (or other secure credentials). After an order of one or more pulltab games is designated as "delivered" to a particular hosting establishment **204**, the game operator **205** can log in to the CRM software **210** (e.g., on a mobile device) to view the unique QR code, and then scan the QR code using the external optical code scanner **562**A of the prize kiosk **514**A. The prize kiosk **514**A reads the URL and credentials from the QR code, and then makes a secure API request to the specified URL to download the game data **218** to a digital memory (e.g., hard drive) within the prize kiosk **514**A. Upon receipt of the game data **218** at the device **514**A (Step **1404**), the operator **205** can then manually "activate" the particular pulltab game via a user interface of the device **514**A, thereby ensuring end-user control over the game-activation process.

[0103] At Step **1406**, prize kiosk **514**A detects a scannable verification code **456**, such as a barcode or QR code, printed on a pulltab card **336** placed in front of its integrated optical scanner **562**A. Optical scanner **562**A scans the code **456**, and at Step **1408**, extracts the prize-verification code **454** encoded thereby. At Step **1410**, prize kiosk **514**A compares the prize-verification code **454** to the complete set of prize-verification codes included in game data **218** stored in local memory. At Step **1412**, prize kiosk **514**A identifies a matching number, and also verifies that prize-verification code

454 has not already been redeemed, thereby confirming that pulltab card **336** is a valid, winning card. In some examples, prize kiosk **514**A is further configured to verify that the pulltab card **336** belongs to a gameset that is paired for redemption on this particular kiosk **514**A, and not a different prize-redemption device **214** located elsewhere, based on a game serial number associated with the card **336**, and/or that the card's gameset was confirmed for active play (or "activated") by the operator **205**.

[0104] Upon successfully completing every step of the verification process, at Step **1414**, prize kiosk **514**A retrieves, from within game data **218**, a prize denomination corresponding to prize-verification code **454**, and at Step **1416**, automatically dispenses a cash prize from prize dispenser **566**, in an amount corresponding to the prize denomination. In some examples, prize kiosk **514**A also modifies the game data to prevent fraudulent redemption of the same pulltab card in the future.

[0105] Although the systems, devices, and methods of the invention have been described in connection with the field of trading cards, card-based games, and chance-based gaming, it can readily be appreciated that the invention is not limited solely to such fields, and can be used in other fields.

[0106] For simplicity and clarity of illustration, the drawing figures illustrate the general manner of construction, and descriptions and details of well-known features and techniques may be omitted to avoid unnecessarily obscuring the present disclosure. Additionally, elements in the drawing figures are not necessarily drawn to scale. For example, the dimensions of some of the elements in the figures may be exaggerated relative to other elements to help improve understanding of embodiments of the present disclosure. The same reference numerals in different figures denote the same elements.

[0107] The terms "first," "second," "third," "fourth," and the like in the description and in the claims, if any, are used for distinguishing between similar elements and not necessarily for describing a particular sequential or chronological order. It is to be understood that the terms so used are interchangeable under appropriate circumstances such that the embodiments described herein are, for example, capable of operation in sequences other than those illustrated or otherwise described herein. Furthermore, the terms "include," and "have," and any variations thereof, are intended to cover a non-exclusive inclusion, such that a process, method, system, article, device, or apparatus that comprises a list of elements is not necessarily limited to those elements, but may include other elements not expressly listed or inherent to such process, method, system, article, device, or apparatus.

[0108] The terms "left," "right," "front," "back," "top," "bottom," "over," "under," and the like in the description and in the claims, if any, are used for descriptive purposes and not necessarily for describing permanent relative positions. It is to be understood that the terms so used are interchangeable under appropriate circumstances such that the embodiments of the apparatus, methods, and/or articles of manufacture described herein are, for example, capable of operation in other orientations than those illustrated or otherwise described herein.

[0109] Although the invention or elements thereof may by described in terms of vertical, horizontal, transverse (lateral), longitudinal, and the like, it should be understood that variations from the absolute vertical, horizontal, transverse, and longitudinal are also deemed to be within the scope of the invention.

[0110] The terms "couple," "coupled," "couples," "coupling," and the like should be broadly understood and refer to connecting two or more elements mechanically and/or otherwise. Two or more electrical elements may be electrically coupled together, but not be mechanically or otherwise coupled together. Coupling may be for any length of time, e.g., permanent or semi-permanent or only for an instant. "Electrical coupling" and the like should be broadly understood and include electrical coupling of all types. The absence of the word "removably," "removable," and the like near the word "coupled," and the like does not mean that the coupling, etc., in question is (or is not) removable.

[0111] As defined herein, “approximately” can, in some embodiments, mean within plus or minus ten percent of the stated value. In other embodiments, “approximately” can mean within plus or minus five percent of the stated value. In further embodiments, “approximately” can mean within plus or minus three percent of the stated value. In yet other embodiments, “approximately” can mean within plus or minus one percent of the stated value.
[0112] The embodiments above are chosen, described and illustrated so that persons skilled in the art will be able to understand the invention and the manner and process of making and using it. The descriptions and the accompanying drawings should be interpreted in the illustrative and not the exhaustive or limited sense. The invention is not intended to be limited to the exact forms disclosed. While the application attempts to disclose all of the embodiments of the invention that are reasonably foreseeable, there may be unforeseeable insubstantial modifications that remain as equivalents. It should be understood by persons skilled in the art that there may be other embodiments than those disclosed which fall within the scope of the invention as defined by the claims. Where a claim, if any, is expressed as a means or step for performing a specified function it is intended that such claim be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof, including both structural equivalents and equivalent structures, material-based equivalents and equivalent materials, and act-based equivalents and equivalent acts.

Claims

1. A non-transitory, computer-readable medium comprising program instructions that, when executed by processing circuitry of a prize-redemption device, cause the processing circuitry to: receive scan data indicative of a scannable verification code printed on a pulltab card of a pulltab game; determine, based on the scan data, a prize-verification code for the pulltab card; verify the pulltab card by: determining, based on a game serial number associated with the prize-verification code, that the pulltab game is paired with the prize-redemption device or activated for redemption on the prize-redemption device; determining, based on the prize-verification code, that the pulltab card is a winning card; and determining, based on the prize-verification code, that the winning card has not already been redeemed; and in response to verifying the pulltab card, cause the prize-redemption device to dispense a cash prize associated with the winning card or an indication of the cash prize.
2. The non-transitory, computer-readable medium of claim 1, wherein the processing circuitry is configured to determine that the pulltab card is a winning card by comparing the prize-verification code to a set of game data stored in a local memory of the prize-redemption device.
3. The non-transitory, computer-readable medium of claim 2, wherein the game data comprises a comma-separated values (.csv) file comprising, for each of a plurality of winning cards of the pulltab game comprising the winning card: the game serial number for the pulltab game; and a denomination code indicating an amount of prize money associated with the winning card.
4. The non-transitory, computer-readable medium of claim 3, wherein the prize-verification code for the pulltab card comprises a fourteen-digit number in which: a first group of six digits encodes the game serial number a second group of four digits encodes the denomination code; and a third group of four digits encodes a winning ticket ID.
5. The non-transitory, computer-readable medium of claim 3, wherein the prize-verification code comprises an eleven-digit numeric code, and wherein the .csv file further comprises the eleven-digit numeric code.
6. The non-transitory, computer-readable medium of claim 2, wherein the processing circuitry is further configured to wirelessly receive the game data from a remote computing system to exclusively pair the game serial number with the prize-redemption device.
7. The non-transitory, computer-readable medium of claim 6, wherein: the scan data comprises first

scan data; and the processing circuitry is further configured to: receive second scan data indicative of a quick-response (QR) code generated by the remote computing system; determine, based on the second scan data, a URL and an authentication code; transmit an API request comprising the authentication code to the URL; and in response to transmitting the API request, wirelessly receive the game data.

8. The non-transitory, computer-readable medium of claim 1, wherein, in response to verifying the pulltab card, the processing circuitry is further configured to cause a ticket collector of the prize-redemption device to eject the pulltab card into a secure receptacle of the prize-redemption device.

9. The non-transitory, computer-readable medium of claim 1, wherein, in response to verifying the pulltab card, the processing circuitry is further configured to update a log of prize-redemption transactions stored in digital memory.

10. A method comprising: wirelessly receiving, by a prize-redemption device from a remote computing system, a set of game data for a pulltab game comprising a plurality of pulltab cards to exclusively pair the pulltab game with the prize-redemption device, wherein the game data comprises: a game serial number for the pulltab game; a prize-verification code for each of a plurality of winning cards within the plurality of pulltab cards; and a denomination code indicating an amount of prize money for each of the plurality of winning cards; and verifying a winning card from the plurality of winning cards by: determining, based on the game serial number, that the pulltab game is paired with the prize-redemption device or activated for redemption on the prize-redemption device; and determining, based on the respective prize-verification code, that the winning card has not already been redeemed.

11. The method of claim 10, wherein wirelessly receiving the game data comprises: scanning, by an optical scanner of the prize-redemption device, a quick-response (QR) code generated by the remote computing system; determining, based on the scanned QR code, a URL and an authentication code; transmitting an API request comprising the authentication code to the URL; and in response to transmitting the API request, wirelessly receiving the game data.

12. The method of claim 10, further comprising, in response to verifying the winning card, ejecting, by a ticket collector of the prize-redemption device, the winning card into a secure receptacle of the prize-redemption device.

13. The method of claim 10, further comprising, in response to verifying the winning card, updating a log of prize-redemption transactions stored in a digital memory of the prize-redemption device.

14. The method of claim 10, further comprising: scanning, by the optical scanner, a scannable verification code printed on the winning card; and determining, by the prize-redemption kiosk based on the scannable verification code, the prize-verification code for the winning card.

15. A system comprising: a computing device configured to generate a pulltab game comprising: a set of game data; and a set of graphical card images comprising at least one scannable verification code associated with the game data; and a prize-redemption device configured to: wirelessly receive the game data from the computing device via an API request to exclusively pair the pulltab game with the prize-redemption device; scan the at least one scannable verification code printed on a pulltab card belonging to the pulltab game to determine a prize-verification code for the pulltab card; verify the pulltab card as a winning card based on the prize-verification code and the game data; and dispense a cash prize associated with the pulltab card in response to verifying the pulltab card as the winning card.

16. The system of claim 15, wherein the prize-redemption device is configured to wirelessly receive the game data by: scanning a quick-response (QR) code generated by the remote computing system; determining, based on the scanned QR code, a URL and an authentication code; transmitting an API request comprising the authentication code to the URL; and wirelessly receiving the game data in response to transmitting the API request.

17. The system of claim 15, wherein the prize-redemption device comprises an integrated ticket

collector configured to: intake the pulltab card; scan the scannable verification code; and in response to the prize-redemption device verifying the pulltab card as the winning card, eject the pulltab card into a secure receptacle of the prize-redemption device.

18. The system of claim 15, wherein the prize-redemption device comprises a non-transitory, computer-readable memory configured to store the game data and a log of prize-redemption transactions; and wherein the prize-redemption device is further configured to, in response to verifying the pulltab card as the winning card, update the log of prize-redemption transactions.

19. The system of claim 15, wherein the game data comprises, for each of a plurality of winning cards including the winning card: a game serial number for the pulltab game; and a denomination code indicating an amount of prize money.

20. The system of claim 15, wherein the prize-redemption device is configured to verify the pulltab card as the winning card by: determining, based on a game serial number within the game data, that the pulltab game is paired with the prize-redemption device or activated for redemption on the prize-redemption device; and determining, based on the prize-verification code, that the winning card has not already been redeemed.