An interactive walkway includes a plurality of walkway segments, each of the walkway segments being associated with a signal generator, a physical location, and an identifying indicium, and at least one receiver in communication with the signal generators, the at least one receiver being adapted to receive a transmission and activate at least one of the signal generators upon receipt of the transmission. Gaming methods that make use of the interactive walkway are also disclosed.
INTERACTIVE WALKWAY AND GAMING
METHOD EMPLOYING SAME

[0001] This application is based on U.S. Provisional Patent Application Ser. No. 60/926,366, filed Apr. 26, 2007, the disclosure of which is incorporated herein by reference.

FIELD OF THE INVENTION

[0002] The present invention relates to systems and methods for conducting games of chance. More specifically, the present invention relates to systems and methods wherein a player participates in a game of chance in which the player’s location with respect to a randomly selected location in an interactive walkway determines whether the player wins the game.

BACKGROUND OF THE INVENTION

[0003] Games of chance that involve the random selection of numbers and/or letters, such as roulette, bingo or keno, are well-known. In such games, a player wagers on one or more numbers and/or letters, and wins if the chosen numbers and/or letters are randomly selected by the game’s controller.

[0004] New games of chance are constantly being developed in order to sustain player interest, attract new players, and generate additional revenue. As new technologies, such as improved computers and advanced telecommunications, become available, opportunities for incorporating the new technologies into gaming methods present themselves.

[0005] A need exists for systems and methods for conducting games of chance that incorporate advanced technologies to afford different and exciting experiences for players.

[0006] A need also exists for systems and methods for conducting games of chance that can be implemented in a variety of environments, including areas outside of traditional gaming venues such as casinos.

SUMMARY OF THE PREFERRED EMBODIMENTS

[0007] In accordance with one aspect of the present invention, there is provided an interactive walkway that includes a plurality of walkway segments, each of the walkway segments being associated with a signal generator, a physical location, and an identifying indicium, and at least one receiver in communication with the signal generators, the at least one receiver being adapted to receive a transmission and activate at least one of the signal generators upon receipt of the transmission.

[0008] The walkway segments, in various particular embodiments, comprise boards forming a boardwalk; tiles forming at least a portion of a floor; concrete segments forming at least a portion of a sidewalk; or other discrete elements. According to alternative particular embodiments, the walkway segments are defined areas of at least partially continuous surface, such as a floor or sidewalk.

[0009] The signal generators, in particular embodiments, are affixed to the walkway segments. In other particular embodiments, they are embedded within the walkway segment. In still other embodiments, they are placed at a location remote from the walkway segments, such as in a video display unit, a billboard, etc.

[0010] Signal generators useful according to embodiments of the invention comprise lights, more particularly incandescent lights, neon lights or other lights utilizing noble gases, fluorescent lights, and solid-state devices such as light-emitting diode. Other embodiments employ signal generators that produce an audible sound. Suitable sound generators include speakers, tone generators, and the like. Still other embodiments employ signal generators that comprise a video display device, such as a "Diamond Vision"-type video display screen. Yet other embodiments employ a cellular telephone or other telecommunication device as the signal generator. In general, any device capable of alerting a game participant that he or she has won a prize is useful according to the invention.

[0011] The location of the walkway segment is defined, in particular embodiments, by GPS coordinates identifying a point within the walkway segment, or alternatively, by a set of GPS coordinates delimiting at least a portion of an area of the walkway segment. The identifying indicium typically comprises an alpha-numeric designation.

[0012] Various configurations of receivers and signal generators are utilized according to various particular embodiments. In some particular embodiments, the interactive walkway includes one receiver that is in communication with each of the signal generators. Other particular embodiments make use of a plurality of receivers, each of the receivers being in communication with a portion of the signal generators such that each signal generator is in communication with at least one receiver. Still other embodiments include a plurality of receivers, each receiver being in communication with one of the signal generators, wherein the number of signal generators equals the number of receivers. In very particular embodiments, each walkway segment is associated with a separate signal generator and a separate receiver.

[0013] Signal generators and receivers can communicate by various means, including electrical connections, i.e., hard-wired connections, or by wireless connections. The signal generators can also be powered by various means, such as connections to electrical grids, batteries, solar cells and the like.

[0014] Certain particular embodiments of the inventive walkway are substantially one-dimensional, i.e., the various walkway segments are arranged linearly. Other particular embodiments are two-dimensional and include at least three non-collinear walkway segments. Still other particular embodiments are three-dimensional, and thus include additional walkway segments that are non-coplanar with at least three non-collinear walkway segments. Such walkways can extend, for example, up and down stairways, via elevators or escalators, and can extend over or under themselves.

[0015] Interactive walkways according to the invention are useful in a variety of applications, such as advertising, provision of personalized audio or video displays, etc. Specific embodiments of the inventive walkways are particularly suitable for use in gaming methods. Thus, in accordance with another aspect of the present invention, there is provided a gaming method that includes the steps of: providing a gaming system including an interactive walkway as described herein; a transmitter adapted to communicate with the at least one receiver of the interactive walkway; and a controller adapted to communicate with the transmitter and with at least one player; randomly selecting an identifying indicium corresponding to a walkway segment; determining whether at least one player is within a preselected distance from the walkway segment to which the selected identifying indicium corresponds during at least one time within a preselected time interval; and alerting the at least one player when the player is
The location of the walkway segment is defined, in specific embodiments, by GPS coordinates identifying at least one point within the walkway segment, more specifically by a set of coordinates identifying an area within the walkway segment. In such embodiments, the GPS coordinates of at least one player are obtained and compared with the GPS coordinates identifying the at least one point within the walkway segment. The player’s GPS coordinates are provided to the control site, in particular embodiments, by a telecommunication device carried by the player, more particularly by a cellular telephone comprising a GPS locator.

The walkway segments’ identifying indicia comprise, in various embodiments, an alphanumeric designation, which can be, for example, a simple number, a combination of a letter and a number, two or more letters or numbers, or any other desired combination thereof.

A winning player is alerted by activating at least one signal generator, and if desired by two or more signal generators. This activation can be accomplished by various means. For example, in particular embodiments, the control site communicates an activation instruction to a transmitter, which communicates the activation instruction to a receiver in communication with at least one signal generator. One or more of the signal generator can be associated with the walkway segment the identifying indicium of which was randomly selected. In more particular embodiments, at least one of the activated signal generators is affixed to the walkway segment, or more particularly, embedded within the walkway segment. Alternatively, one or more activated signal generators can be remote from the walkway segment.

Signal generators of various types are employed according to particular embodiments, for example, lights, such as incandescent, neon (or other noble gas) or fluorescent lights, or light-emitting diode. Other signal generators useful according to embodiments of the invention include sound generators, such as speakers, sirens and the like, and video display devices.

Players participate in gaming methods according to the invention by directly contacting the controller, for example via telephone or by accessing a site on a network in communication with the controller, or alternatively, after being contacted by the controller and invited to participate. Such invitations can be issued as a benefit of enrollment in an organization, for example, or by previous submission of an application to participate. Whether the player contacts or is contacted by the controller, it is desirable to verify that the player is eligible to participate in the game (e.g., is of legal age). Thus, in particular embodiments, the controller verifies the player’s eligibility to participate in the gaming method, for example, when the player accepts the controller’s invitation to participate in the gaming method.

Once an identifying indicium has been randomly selected, particular embodiments of the inventive method specify a time interval during which it is determined whether a player is sufficiently near the corresponding walkway segment to win. In certain particular embodiments, the preselected time interval is calculated to commence at the time the identifying indicium is selected. In other particular embodiments, the preselected time interval is calculated to commence at a time prior to the time the identifying indicium is selected. According to these embodiments, the time interval surrounds the time the indicium is selected, allowing a player to be considered a winner if he or she is, or was, sufficiently close to the identified walkway segment when its identifying indicium is selected.

Gaming methods according to the present invention can be implemented to generate revenue from game sponsors, advertisers, and the like, and also from game players. Thus, according to particular embodiments, a player pays a premium in order to participate in the gaming method. In addition, multiple gaming rounds can be played, with the various selection, determination and notification steps being repeated sequentially, and a player can pay a premium for any desired number of rounds.

Gaming methods according to embodiments of the invention can be implemented using a single interactive walkway, or by using two or more interactive walkways, which can be connected or separated from one another.

Players can begin participating in gaming methods according to the invention at any desired time or location. In particular embodiments, the gaming method commences, and the player thus begins participation, when a player first approaches a walkway segment such that the distance between the player and the walkway segment is less than or equal to a preselected activation distance.

Other features and advantages of the present invention will become apparent to those skilled in the art from the following detailed description. It is to be understood, however, that the detailed description and specific examples, while indicating preferred embodiments of the present invention, are given by way of illustration and not limitation. Many changes and modifications within the scope of the present invention may be made without departing from the spirit thereof, and the invention includes all such modifications.

**BRIEF DESCRIPTION OF THE DRAWINGS**

The invention may be more readily understood by referring to the accompanying drawings in which

**FIG. 1** is a top plan view of a portion of an embodiment of an interactive walkway of the invention that includes a plurality of walkway segments, each with an embedded signal generator and receiver, and including alternative power sources such as solar cells and batteries.

**FIG. 2** is a top plan view of a portion of another embodiment of an interactive walkway in which a plurality of signal generators in separate walkway segments communicate with a single receiver, and are powered by a connection to an electrical grid.

**FIG. 3** is an illustration of another embodiment of an interactive walkway that includes sidewalk segments, together with stairway segments and floor segments that extend into a building, and also includes signal generators in the form of video displays mounted on several buildings as well as signal generators affixed to various of the segments, and

**FIGS. 4a-c illustrate an embodiment of a gaming method according to the invention that makes use of a user’s**
cellular telephone as well as an interactive walkway including sidewalk segments and a signal generator mounted atop a building.

[0032] In the figures, like elements are numbered alike throughout.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

[0033] Turning now to FIG. 1, interactive walkway 10 includes a plurality of interactive walkway segments 12 which are associated with signal generators 14 and receivers 16. Each interactive walkway segment 12 has a distinct physical location, which can be defined, for example, by a single set of GPS coordinates 24, or by a group of GPS coordinate sets 26 which define an area encompassing at least a portion of the interactive walkway segment. Each interactive walkway segment 12 is assigned an identifying indicium 22, which can be, for example, a number, a letter, a combination of a number and a letter, or any other desired combination. The identifying indicium 22 can be visibly displayed on interactive walkway segment 12 (as shown in FIG. 1), and in particular embodiments is stored in a storage medium accessible by a controller 60 (see FIGS. 4a-c) used to implement a gaming method employing the interactive walkway as described below.

[0034] Interactive walkway 10 can include both interactive walkway segments 12 and non-interactive walkway segments 13, or alternatively, interactive walkway 10 can be comprised solely of interactive walkway segments 12. Non-interactive walkway segments 13 are segments that are not associated with a signal generator 14 and are not assigned identifying indicia 22.

[0035] Interactive walkway segments 12 can comprise any desired material. Non-limiting examples include wooden boards or planks, concrete slabs, tiles, synthetic materials, etc. Segments can also be arranged in any desired configuration. For example, wooden boards or planks can be assembled into an interactive boardwalk; concrete slabs, into an interactive sidewalk; tiles or synthetic materials, into an interactive floor or stairway; etc. Furthermore, interactive walkway segments need not be discrete elements, but can also constitute defined areas of a continuous surface, such as a nightclub floor, a lawn, a playing field, or the like.

[0036] Signal generators 14 and receivers 16 can be associated with the interactive walkway segments 12 in a variety of ways. For example, a signal generator and a receiver can be affixed to a surface of the interactive walkway segment. Alternatively, the signal generator and/or the receiver can be embedded within the interactive walkway segment. In still other alternative embodiments, one or more signal generators can be disposed remotely from its associated interactive walkway element. For example, a video display unit associated with one or more interactive walkway elements can be mounted on a nearby building or other structure (see FIG. 3, video display units 50).

[0037] Signal generators and/or receivers can be powered in various ways. As shown in FIG. 1, individual signal generators and/or receivers can be powered by solar cells 18 or batteries 20. Alternatively, two or more signal generators and/or receivers can be connected to a common power source. As shown in FIG. 2, a plurality of signal generators 14, as well as common receiver 16, communicate with an electrical power grid 34 by means of an electrical connection 32, such as a dedicated cable.

[0038] Various types of signal generator are useful according to embodiments of the inventive walkway. Useful signal generators include, without limitation, lights, such as incandescent lights, neon lights or other lights utilizing noble gases (e.g., krypton, xenon), fluorescent lights, and light-emitting diodes or other solid-state devices; speakers, tone generators and other signal generators that produce an audible sound; and video display devices, such as a "Diamond Vision"-type video display screens, crawling displays and other animated display devices.

[0039] The signal generators need not all be fixed in one location. Thus, in particular embodiments, a cellular telephone or other telecommunication device in the possession of a player is useful as the signal generator.

[0040] Signal generators 14 and receivers 16 can be connected to each other by means of an electrical connection such as a cable or wire, or alternatively, can be in wireless communication with each other. Signal generators and receivers can, if desired, be combined into an integrated unit that performs the functions of each; for example, a solid-state device such as a light-emitting diode can be produced as part of a microchip that also includes a receiver.

[0041] Turning to FIG. 3, an interactive walkway 40 includes sidewalk interactive walkway segments 42, as well as floor segments 46 (second-floor segments are illustrated) and stairway segments 44, with associated receivers 16 and signal generators 14, including video display units 50 mounted on buildings 48 and in communication with building-mounted receivers 52. As shown, interactive walkways according to embodiments of the invention need not be confined to linear or planar configurations, but can extend throughout a three-dimensional space.

[0042] Interactive walkways according to the invention are useful in a variety of applications, including advertisement campaigns in which signal generators provide messages to individuals entering randomly selected interactive walkway segments, and in particular in implementing gaming methods that award premiums to players who are present at randomly selected segments. An exemplary gaming system, employing an interactive walkway according to the invention together with additional control elements, is illustrated in FIGS. 4a-c.

[0043] In FIG. 4a, a potential player carrying a cellular telephone 66 receives a call via cellular network 64 from controller 60 inviting him to participate in a game. Potential players can be contacted in a variety of ways. For example, a potential player can join players’ club, with or without payment of a premium. On joining the players’ club, the player provides the club with one or more contact numbers, such as cellular telephone numbers or pager numbers, at which the player can be contacted. In particular embodiments, the contact number corresponds to a cellular telephone having a GPS locator, which facilitates both contacting the potential player and ascertaining his location with respect to subsequently-selected interactive walkway segments. Alternatively, a potential player can contact the game’s controller at a publicly-accessible telephone number, website, etc. and request to participate in a game.

[0044] The player can be contacted prior to entry onto a portion of interactive walkway 40, or alternatively, after entry onto a portion thereof. In particular, the player can be contacted when his GPS coordinates are determined to be within a specified distance, such as one hundred yards, from the nearest interactive walkway segment.
It is desirable that the eligibility of a player to participate in the gaming method (such as meeting a minimum age requirement) be confirmed prior to authorizing the player to participate. Thus, more specific gaming methods of the invention require the potential player to confirm that he is in fact eligible to participate. Confirmation can be effected by, for example, providing a credit card number, driver’s licence number or other evidence of age, residency, etc. as required by the appropriate regulatory authority. Alternatively, such information can be provided by a potential player prior to contact (for example, at the time the potential player joins the players’ club mentioned above).

Controller 60 can be, in various embodiments, a site on a network, such as the Internet, that implements appropriate software controlling operation of the game; a physical location such as an office in which live operators communicate with potential players and personally operate the game; etc.

The player can, in particular embodiments, elect to participate in one or more rounds of a game. That is, the player can specify how many times an identifying indicium corresponding to a walkway segment will be selected before his participation in the game ends. Each round can include the selection of one or more identifying indicia. In more particular embodiments, the player is assessed a premium for each round or each identifying indicium. This can be carried out, for example, by billing an account associated with the game that the player maintains, by making a credit- or debit-card purchase, or in any other desired manner.

In FIG. 46, the player now proceeds along interactive walkway 40. The player’s location is periodically or continually determined, for example, by determining the player’s GPS coordinates via cellular telephone 66 and GPS satellite 68. Meanwhile, controller 60 randomly selects an identifying indicium 22a corresponding to an interactive walkway segment 42a having GPS coordinate set 24a, using any desired method for random selection of an item. The player’s location is then compared with coordinate set 24a to determine whether the player is within a predetermined distance D (for example, five feet) from interactive walkway segment 42a. In particular embodiments, it is also determined whether the player’s location is within distance D of interactive walkway segment 42a within a preselected interval of time T (the duration of the current game round). The interval of time T can be measured from the time identifying indicium 22a was selected, or alternatively, can be an interval of time beginning prior to the time of selection and measured backward from the time of selection, and extending forward to predetermined time after the time of selection. That is, the time interval during which the player must be within distance D of interactive walkway segment 42a (as measured from GPS coordinate set 24a) can have the time at which identifying indicium 22a was selected as a starting point or as a point within the time interval.

When it is determined that the player’s location is within distance D of interactive walkway segment 42a, and more particularly within the duration of the current game round, controller 60 alerts the player by activating at least one signal generator of the interactive walkway. Turning to FIG. 4c, controller 60 communicates with receiver 16a of interactive walkway segment 42a, which in turn activates signal generator 14a, for example a light embedded within interactive walkway segment 42a. The light then attracts the attention of the player, alerting him that he has won the current game round. Controller 60 also communicates with building-mounted receiver 52, which in turn activates video display unit 50 mounted on building 48. Video display unit 50 then displays a message to the player, notifying him that he has won the current game round.

Communication between controller 60 and receivers 16a and 50 can be by wireless means, or alternatively via a dedicated hard line connection.

Additionally, controller 60 contacts the player’s cellular telephone 66 and provides an audio message advising him that he has won the current game round.

Although several different signal generators are activated in FIG. 4c, it should be recalled that activation of multiple signal generators is not essential to the inventive gaming methods. Activation of a single signal generator is sufficient, with multiple activations simply providing additional notification to the player and making it more certain that the player will become aware of winning the current game round.

Once the player has been notified of winning the current game round, he then contacts controller 60, or a designated alternative contact, to claim the prize for that round.

What is claimed is:

1. An interactive walkway comprising
   a) a plurality of walkway segments, each of the walkway segments being associated with
      i) a signal generator,
      ii) a physical location, and
      iii) an identifying indicium, and
   b) at least one receiver in communication with the signal generators, the at least one receiver being adapted to receive a transmission and activate at least one of the signal generators upon receipt of the transmission.

2. The interactive walkway of claim 1 wherein the walkway segments comprise a plurality of boards forming a boardwalk.

3. The interactive walkway of claim 1 wherein the walkway segments comprise a plurality of tiles forming at least a portion of a floor.

4. The interactive walkway of claim 1 wherein the walkway segments comprise a plurality of concrete segments forming at least a portion of a sidewalk.

5. The interactive walkway of claim 1 wherein the walkway segments are defined areas of at least partially continuous surface.

6. The interactive walkway of claim 1 wherein the signal generator is affixed to the walkway segment.

7. The interactive walkway of claim 1 wherein the signal generator is embedded within the walkway segment.

8. The interactive walkway of claim 1 wherein the signal generator is remote from the walkway segment.

9. The interactive walkway of claim 1 wherein at least one signal generator comprises a light.

10. The interactive walkway of claim 1 wherein the light is selected from the group consisting of an incandescent light, a neon light, a fluorescent light and a light-emitting diode.

11. The interactive walkway of claim 1 wherein at least one signal generator comprises a sound generator.

12. The interactive walkway of claim 1 wherein at least one signal generator comprises a video display device.

13. The interactive walkway of claim 1 wherein at least one signal generator comprises a telecommunication device.
15. The interactive walkway of claim 1 wherein the physical location of the walkway segment is defined by GPS coordinates identifying a point within the walkway segment.

16. The interactive walkway of claim 1 wherein the physical location of the walkway segment is defined by a set of GPS coordinates delimiting at least a portion of an area of the walkway segment.

17. The interactive walkway of claim 1 wherein the identifying indicium comprises an alpha-numeric designation.

18. The interactive walkway of claim 1 comprising one receiver, the receiver being in communication with each of the signal generators.

19. The interactive walkway of claim 1 comprising a plurality of receivers, each of the receivers being in communication with a portion of the signal generators such that each signal generator is in communication with at least one receiver.

20. The interactive walkway of claim 1 comprising a plurality of receivers, each receiver being in communication with one of the signal generators, wherein the number of signal generators equals the number of receivers.

21. The interactive walkway of claim 20 wherein each walkway segment is associated with a separate signal generator and a separate receiver.

22. The interactive walkway of claim 1 wherein at least one signal generator communicates with at least one receiver via an electrical connection.

23. The interactive walkway of claim 1 wherein at least one signal generator communicates with at least one receiver via a wireless connection.

24. The interactive walkway of claim 1 wherein at least one signal generator is solar-powered.

25. The interactive walkway of claim 1 comprising at least three non-collinear walkway segments.

26. The interactive walkway of claim 25 further comprising at least one walkway segment that is non-coplanar with at least three non-collinear walkway segments.

27. A gaming method comprising the steps of:
   i) providing a gaming system comprising:
      a) an interactive walkway comprising
         1) a plurality of walkway segments, each of the walkway segments being associated with
            A) a signal generator,
            B) a physical location, and
            C) an identifying indicium, and
         2) at least one receiver in communication with the signal generators, the at least one receiver being adapted to receive a transmission and activate at least one of the signal generators upon receipt of the transmission,
            b) a transmitter adapted to communicate with the at least one receiver, and
            c) a controller adapted to communicate with the transmitter and with at least one player,
      ii) randomly selecting an identifying indicium corresponding to a walkway segment,
      iii) determining whether at least one player is within a preselected distance from the walkway segment to which the selected identifying indicium corresponds during at least one time within a preselected time interval, and
      iv) alerting the at least one player when the player is determined to be within the preselected distance from the walkway segment by activating at least one signal generator of the interactive walkway.
   ii) the gaming method of claim 27 wherein the controller comprises a computer in communication with a network which is accessible to a player.

29. The gaming method of claim 27 wherein the physical location of the walkway segment is defined by GPS coordinates identifying at least one point within the walkway segment, and wherein in step iii) the GPS coordinates of at least one player are obtained and compared with the GPS coordinates identifying the at least one point within the walkway segment.

30. The gaming method of claim 29 wherein the player's GPS coordinates are provided to the control site by a telecommunication device carried by the player.

31. The gaming method of claim 30 wherein the telecommunication device is a cellular telephone comprising a GPS locator.

32. The gaming method of claim 27 wherein the identifying indicium comprises an alphanumeric designation.

33. The gaming method of claim 27 wherein in step iv) the player is alerted by activating a plurality of signal generators.

34. The gaming method of claim 33 wherein the control site communicates an activation instruction to a transmitter, which communicates the activation instruction to a receiver in communication with at least one signal generator.

35. The gaming method of claim 34 wherein the at least one signal generator is associated with the walkway segment identifying indicium of which was selected in step ii).

36. The gaming method of claim 35 wherein the signal generator is affixed to the walkway segment.

37. The gaming method of claim 35 wherein the signal generator is embedded within the walkway segment.

38. The gaming method of claim 35 wherein the signal generator is remote from the walkway segment.

39. The gaming method of claim 35 wherein at least one signal generator comprises a light.

40. The gaming method of claim 39 wherein the light is selected from the group consisting of an incandescent light, a neon light, a fluorescent light and a light-emitting diode.

41. The gaming method of claim 35 wherein at least one signal generator comprises a sound generator.

42. The gaming method of claim 35 wherein at least one signal generator comprises a video display device.

43. The gaming method of claim 27 wherein, prior to step ii), the controller contacts at least one player to invite the player to participate in the gaming method.

44. The gaming method of claim 43 wherein the controller verifies the player's eligibility to participate in the gaming method when the player accepts the controller's invitation to participate in the gaming method.

45. The gaming method of claim 27 wherein in step iii) the preselected time interval is calculated to commence at the time the identifying indicium is selected.

46. The gaming method of claim 27 wherein in step iii) the preselected time interval is calculated to commence at a time prior to the time the identifying indicium is selected.

47. The gaming method of claim 27 wherein a player pays a premium in order to participate in the gaming method.

48. The gaming method of claim 27 wherein steps ii)-iv) are sequentially repeated.

49. The gaming method of claim 48 wherein a player pays a premium for each of a plurality of sequential repetitions of steps ii)-iv).
50. The gaming method of claim 27 wherein a plurality of interactive walkways are provided.

51. The gaming method of claim 27 which commences when a player first approaches a walkway segment such that the distance between the player and the walkway segment is less than or equal to a preselected activation distance.