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I, RACHEL BEASLEY, DELEGATE OF THE COMMISSIONER, hereby certify that annexed is a true copy of the complete specification in connection with Application No. 2016100425 for an Innovation Patent by KATHRYN WENDY ADAMS, DAVE WHIMPEY, NAT WHIMPEY and SAMUEL ADAMS as filed on 19 April 2016.

WITNESS my hand this FIRST day of December 2016

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LOTTERY SYSTEM

TECHNICAL FIELD

[0001] The present invention relates to lotteries.

BACKGROUND ART

[0002] Lottery players often choose their lottery numbers manually. In order to assist the player in selecting numbers, printed sheets are provided to players including all possible numbers, on which the user crosses over (or otherwise marks) the numbers which he or she wishes to play.

[0003] A problem with manual selection of numbers is that even with such printed sheets, it is still very time consuming to select lottery numbers, particularly if the player has many entries in a lottery. For example, a “regular” Oz Lotto ticket comprising 12 games with 7 numbers in each game includes in total 84 numbers. Furthermore, players often have only a limited number of favourite numbers, making it difficult and tedious for the player to manually select large numbers of combinations of numbers.

[0004] As a result, many lotteries provide random number selection tools (e.g. QuickPick on Oz Lotto) to enable users to quickly select numbers for potentially a large number of games. In particular, the player selects how many games he or she wishes to play, and the system generates random numbers for each of those games.

[0005] A problem with such random number selection tools is that players feel that they have no influence over the numbers, and thus whether or not they win, which decreases player engagement.

[0006] Accordingly, there is clearly a need for an improved lottery system.

[0007] It will be clearly understood that, if a prior art publication is referred to herein, this reference does not constitute an admission that the publication forms part of the common general knowledge in the art in Australia or in any other country.

SUMMARY OF INVENTION

[0008] The present invention is directed to lottery systems, which may at least partially overcome at least one of the abovementioned disadvantages or provide the consumer with a useful or commercial choice.
With the foregoing in view, the present invention in one form, resides broadly in a lottery method including:
receiving, from a user, one or more user preferences, the user preferences defining preferences relating to lottery numbers;
generating a set of lottery numbers at least in part according to the user preferences;
and
providing the set of numbers to the user.

The method enables players to play lotteries using numbers which the player likes, without having to manually select the numbers. This helps engage the players, which in turn provides for a more enjoyable gambling experience.

Preferably, the method comprises generating a plurality of sets of numbers for the user. Each set of numbers may be related to a different game in a lottery. The sets of numbers may relate to more than one lottery. The user may select a set of lottery numbers from the plurality of sets of numbers, and purchase a lottery ticket according to the selected set of numbers.

Preferably, the method comprises receiving payment of a lottery ticket, and issuing a lottery ticket in response to receiving the payment, wherein the lottery ticket includes the set of numbers. Suitably, the method comprises issuing multiple lottery tickets.

Preferably, the preferences are indirectly associated with numbers. Preferably, the preferences are non-numerical. Suitably, the non-numerical and/or indirect number preferences include: a shape preference (e.g. a preference for numbers having round shapes (e.g. 6, 8, 9, 0), numbers having sharp edges (e.g. 4), numbers with holes in their shape (e.g. 6, 8, 9), or symmetrical numbers (e.g. 8)), a colour preference (e.g. numbers associated with balls that are coloured red), a date preference (e.g. numbers that form part of a birthdate), a size preference (e.g. a preference for small or large numbers), a mathematical preference (e.g. powers of two, such as 2, 4, 8, 16, prime numbers, odd or even numbers, numbers divisible by 3, Fibonacci numbers) and a statistical preference (e.g. whether they prefer more commonly drawn numbers (or vice versa), whether they prefer recently drawn numbers (or vice versa)).

Preferably, the set of numbers comprises a first set of numbers generated according to the user preferences, and a second set of numbers generated randomly, or pseudo-randomly.

Preferably, an amount of numbers in the first set and/or the second set is user defined. As such, the user is able to influence a level of randomness in the numbers.
[0016] Preferably, generating a set of lottery numbers comprises: assigning a probability to each of a plurality of numbers according to the user preferences; and generating the set of lottery numbers according to the probabilities.

[0017] Preferably, assigning a probability to each of a plurality of numbers comprises: determining a first set of numbers that at least partly match the user preferences; assigning a first probability to the first set of numbers, and assigning a second probability to the remaining numbers.

[0018] Preferably, the method comprises:

receiving, from the user, a selection of a lottery from a plurality of lotteries;

wherein the set of lottery numbers is generated in part according to the selected lottery.

[0019] Preferably, the set of lottery numbers is generated according to a size of a lottery drawing in the selected lottery.

[0020] According to certain embodiments, the system is configured to receive, from the user, a selection of a draw of the selected lottery. The draw is typically associated with a date, but may be associated with a time or draw number (e.g. where multiple draws take place in a single day).

[0021] Preferably, the method comprises: generating an alert relating to a lottery according to a threshold, and providing the alert to the user. Preferably, the threshold relates to a prize pool of the lottery.

[0022] Preferably, the set of numbers are provided to the user with the alert.

[0023] Preferably, the method comprises detecting a motion gesture at a portable device of the user, and providing the set of numbers to the user in response to receiving the detected motion gesture. The motion gesture may mimic waving a magic wand, to further engage the user.

[0024] In another form, the invention resides broadly in a lottery system including:

- a plurality of user devices; and
- a lottery management server, wherein the lottery management server is configured to:

  receive, from a user device of the plurality of user devices, one or more user
preferences, the user preferences defining preferences relating lottery numbers and the user;

generate a set of lottery numbers at least in part according to the user preferences;

and

provide the set of numbers to the user device.

[0025] Any of the features described herein can be combined in any combination with any
one or more of the other features described herein within the scope of the invention.

[0026] The reference to any prior art in this specification is not, and should not be taken as
an acknowledgement or any form of suggestion that the prior art forms part of the common
general knowledge.

BRIEF DESCRIPTION OF DRAWINGS

[0027] Various embodiments of the invention will be described with reference to the
following drawings, in which:

[0028] Figure 1 illustrates a lottery system, according to an embodiment of the present
invention;

[0029] Figure 2 illustrates a screenshot of a preference screen of the system of Figure 1,
according to an embodiment of the present invention;

[0030] Figure 3 illustrates a screenshot of a favourite colour selection screen of the system
of Figure 1, according to an embodiment of the present invention;

[0031] Figure 4 illustrates a screenshot of an important date selection screen of the system
of Figure 1, according to an embodiment of the present invention;

[0032] Figure 5 illustrates a screenshot of a number selection screen of the system of Figure
1, according to an embodiment of the present invention;

[0033] Figure 6 illustrates a screenshot of a lottery selection screen of the system of Figure
1, according to an embodiment of the present invention;

[0034] Figure 7 illustrates a screenshot of a lottery numbers selection screen of the system
of Figure 1, according to an embodiment of the present invention;

[0035] Figure 8 illustrates a further screenshot of the lottery numbers selection screen of
Figure 7;
[0036] Figure 9 illustrates a screenshot of a lottery alert screen of the system of Figure 1, according to an embodiment of the present invention; and

[0037] Figure 10 illustrates a lottery method, according to an embodiment of the present invention.

[0038] Preferred features, embodiments and variations of the invention may be discerned from the following Detailed Description which provides sufficient information for those skilled in the art to perform the invention. The Detailed Description is not to be regarded as limiting the scope of the preceding Summary of the Invention in any way.

DESCRIPTION OF EMBODIMENTS

[0039] Figure 1 illustrates a lottery system 100, according to an embodiment of the present invention. The lottery system 100 provides, among other things, a simple and fun way to assist players in selecting numbers which they like in a lottery.

[0040] The system 100 includes a lottery management server 105 with which players 110 may connect using respective player devices 115. The lottery management server 105 is configured to receive preferences from the players 110 and provide assistance to the players 110 in selecting lottery numbers based upon their preferences.

[0041] In particular, the players 110 enter preferences regarding their numbers, which advantageously include non-numerical or indirect preferences, such as colour preferences, shape preferences and the like. However, as discussed below, direct and/or numerical preferences may also be used by the system. These preferences are then stored in a data store 125, such that they can be retrieved, as required.

[0042] Once numbers are generated, the player may choose to select those numbers, and thus purchase a lottery ticket including those numbers, or cause other numbers to be generated. As such, the players 110 may directly purchase lottery tickets from one or more lotteries 120 using the selected numbers, which is convenient.

[0043] Figure 2 illustrates a screenshot 200 of a preference screen of the system 100, according to an embodiment of the present invention. The preference screen enables the player 110 to enter preferences, which are ultimately used to generate lottery numbers for the player.

[0044] The preference screen includes a favourite colour button 205a, an important dates button 205b, a favourite numbers button 205c, an odd-even preference drop down menu 205d,
and a random number weighting drop down menu 205e.

[0045] The favourite colour button 205a enables the player to select favourite colours, as illustrated below. Similarly, the important dates button 205b enables the player to select important dates in a calendar, as illustrated below. Furthermore, the favourite numbers button 205c enables the player to manually enter his or her favourite numbers, as illustrated below.

[0046] The odd-even preference drop down menu 205d enables the player to enter a preference between odd and even numbers, and the random number weighting drop down menu 205e enables the player to enter a preference for random numbers. The preference for random numbers is used when generating the numbers, to define a weight between player preferences and randomness.

[0047] The preferences may be defined subjectively, for example according to how strong the preference is (e.g. strong preference towards odd numbers, weak preference towards even numbers). Alternatively, the preference may be defined objectively, for example, defining that 2 out of 6 numbers shall be generated according to the preferences, while the remaining 4 numbers are generated randomly (or pseudo randomly).

[0048] Once the player has entered all preferences, a save button 210 is selected, upon which data relating to the preferences are stored on the data store 125 for future use. The preferences are then used to generate numbers for the player.

[0049] Figure 3 illustrates a screenshot 300 of a favourite colour selection screen of the system 100, according to an embodiment of the present invention. The favourite colour selections screen enables a player to quickly enter his or her favourite colours.

[0050] The favourite colour selection screen includes a plurality of selectable colour elements 305, each relating to a different colour. The user is able to select (and deselect) favourite colours by tapping on the colour element 305 (in case of a touchscreen device), or by other means in a non-touchscreen device.

[0051] The colour elements 305 are each provided in the colour in which they represent. For example, a colour element 305 relating to the colour red is coloured red. However, in alternative embodiments, the colour elements may include a name of the colour (e.g. the word “red”).

[0052] The user may select a number of colours that he or she likes, but tapping on multiple
colour elements 305. Once the user has selected his or her favourite colours, a save button 310 is
selected, upon which the player is returned back to the preference screen to either add more
preferences, or to save the currently entered preferences. Alternatively, if the user changes his or
her mind and does not wish to enter colour preferences, a cancel button 315 may be selected.

[0053] The skilled addressee will readily appreciate that in alternative embodiments, the
favourite colour selection screen need not comprise distinct colour elements, but instead may
comprise a colour wheel or colour chart, on which the user may select a favourite colour by
selecting an area of the colour wheel or colour chart.

[0054] Figure 4 illustrates a screenshot 400 of an important date selection screen of the
system 100, according to an embodiment of the present invention. The important date selection
screen enables a player to manually select dates that he is she finds important (e.g. birthdates,
wedding anniversary and the like).

[0055] The date selection screen includes a calendar element 405 comprising a plurality of
selecting date elements 410. Similar to the colour elements 305 of Figure 3, the user may select
date elements 410 that correspond with important dates by tapping the date element 410.

[0056] The calendar element 405 includes navigation elements 415, which enable the user to
navigate between different months and/or years, which in turn enables the user to select any
important date, such as birthdays of children, anniversaries and the like.

[0057] Finally, the important date selection screen includes the save and cancel buttons 310,
315, which enables the user to save or cancel the input preferences.

[0058] Figure 5 illustrates a screenshot 500 of a number selection screen of the system 100,
according to an embodiment of the present invention.

[0059] The number selection screen includes a plurality of selectable number entries 505.
The number entries 505 are each associated with a number, and are selectable by the player in a
similar manner to the colour elements 305. This enables the player to quickly select potentially
many numbers that he or she likes.

[0060] Once the player has selected all the numbers, the save and cancel buttons 310, 315,
enable the player to save or cancel the input preferences, as discussed above.

[0061] The skilled addressee will readily appreciate that other options may be provided in
relation to the user preferences. For example, the user may be specifically prompted to enter a
shape preference (e.g. a preference for numbers having round shapes (e.g. 6, 8, 9, 0), numbers having sharp edges (e.g. 4), numbers with holes in their shape (e.g. 6, 8, 9), or symmetrical numbers (e.g. 8)), a specific date preference (e.g. numbers that form part of a birthdate), a size preference (e.g. a preference for small or large numbers), and a mathematical preference (e.g. powers of two, such as 2, 4, 8, 16, prime numbers, Fibonacci numbers), a statistical preference (e.g. whether they prefer more commonly drawn numbers (or vice versa), whether they prefer recently drawn numbers (or vice versa), a preference for numbers with a 0 in them, numbers where two digits are the same (e.g. 22), numbers divisible by 5, or numbers divisible by 3, for example.

[0062] As previously mentioned, once all of the preferences are entered, they are saved on the data store, and are later used to provide suggested numbers to the user for playing in a lottery. In order to play in a lottery, the user generally first selects the lottery he or she wishes to play.

[0063] Figure 6 illustrates a screenshot 600 of a lottery selection screen of the system 100, according to an embodiment of the present invention. The lottery selection screen includes a plurality of lottery elements 605, each of which is selectable by the user and relates to a separate lottery opportunity.

[0064] The lottery elements may relate to different lotteries (e.g. Gold Lotto and Powerball) or different draws of a lottery (e.g. this week's draw and next week's draw of Powerball). As such, the player is able to select which games or draws he or she wishes to purchase lottery tickets for.

[0065] The lottery elements 605 also include an others element 605a, which enables the user to access other lotteries. Preferably, the most popular lotteries are provided on the lottery selection screen directly, whereas less popular lotteries are provided through another screen accessible by the others element 605a. This enables the most popular lotteries to be easily selected, while retaining access to less popular lotteries.

[0066] In addition to being able to select a lottery, the system 100 may enable the user to select a specific draw (e.g. Saturday 30 April 2016) in the lotteries. This is particular advantageous when players wish to purchase lottery tickets in advance, rather than just in relation to the next available opportunity.

[0067] Furthermore, the system 100 may enable the user to select a specific number of entries in the lottery. This is particularly advantageous when a user wishes to have many draws
in some lotteries, and few draws in others. Alternatively or additionally, the system 100 may be configured to save preferences of a user regarding a preferred number of entries in each of the lotteries.

[0068] Upon selection of a lottery, a lottery numbers selection screen is provided. The lottery numbers selection screen enables the user to generate numbers for the lottery based upon the system, and select numbers in relation to a ticket.

[0069] Figure 7 illustrates a screenshot 700 of a lottery numbers selection screen of the system 100, and Figure 8 illustrates another screenshot 800 of the lottery numbers selection screen, according to an embodiment of the present invention. The numbers selection screen includes initially includes instructions 705 instructing the player to shake the player device 115 to activate generation of the numbers, as illustrated in Figure 7.

[0070] Upon shaking of the player device, the generated numbers are retrieved from the server 105, and displayed on the lottery numbers selection screen, as illustrated in Figure 8. In particular, the generated numbers are provided as sets of numbers 805, each set 805 comprising six numbers 810 and corresponding to an entry in the lottery.

[0071] The player may swipe over a set of numbers 805 to remove that set from the lottery numbers selection screen, upon which they are replaced by a new set of numbers 805. This is particularly useful if the user is happy with most of the sets of numbers, but not others. Alternatively, the player may shake the phone again to regenerate and replace all sets of numbers 805.

[0072] When the user is happy with the numbers on the lottery numbers selection screen, he or she may select to purchase a lottery ticket using the numbers using a purchase ticket button 815. Upon selection of the purchase ticket button, the user is directed to a website for purchase of the lottery ticket. Alternatively, the ticket may be purchased directly from the system 100, which is particularly advantageous in that a single account may be used to purchase tickets from several lotteries.

[0073] The different lotteries generally draw different amounts of numbers. As such, the numbers may be generated based upon the selection of the user. As an illustrative example, the system 100 will automatically generate sets of 6 numbers for lotteries with 6 number draws, and generate 7 numbers for lotteries with 7 number draws.

[0074] The sets of numbers are generated based upon the user preferences.
In one embodiment, some of the numbers in each set are generated based upon the user preferences, and some are generated randomly (or pseudo-randomly). The user may select how many numbers are selected based upon the user's preferences (e.g., 2 of 6 numbers), such that the remaining (e.g., 4 of 6 numbers) are generated randomly. In such a case, the user is able to see his or her influence on the numbers, while still seeing randomness in the numbers.

In another embodiment, the numbers are all generated in part according to the user preferences using weights. In particular, a probability is assigned to each of a plurality of numbers according to the user preferences, and the set of lottery numbers according to the probabilities.

As an illustrative example, a group of favoured numbers (e.g., 4, 10, 16, 33, 36, 43, 55, 59, 88, 99) is selected from a group of numbers (e.g., 1 to 100) based upon the user preferences. The favoured numbers may be given a weight (probability of being chosen) of 2% (double that compared to if the numbers were selected randomly), whereas the remaining numbers are given a weight of 0.89% (i.e., slightly lower than if the numbers were selected randomly). The numbers are then selected according to the weights, which results in the favoured numbers being selected a little more than twice as often as the other numbers.

In some cases a direct link may be provided between a preference and one or more numbers. For example, in a particular lottery, ball number 33 may be coloured red. In other cases, an indirect link may be provided. For example, if the balls of a lottery are not coloured, a predefined mapping may be used between numbers and colours.

Figure 8 illustrates five sets of numbers 810, and thus relates to five lottery entries. However, any suitable number of lottery entries may be present on the lottery numbers selection screen, including one set of numbers 810, ten sets of numbers, and twenty sets of numbers 810.

According to certain embodiments, the server 105 is configured to monitor lotteries, and let the players know when certain criteria is met. This criteria may be player specific, or shared across a plurality of players.

As an illustrative example, a player may configure the system such that he is alerted if the Powerball jackpot (or first division pool) goes above $10 Million. This is particularly useful for infrequent lottery players in that wish to play only on high jackpot games.

The system may automatically generate numbers based upon the user's preferences, and provide these together with the alerts. As such, the user is able to purchase a lottery ticket in
the lottery with just a single click.

[0083] Figure 9 illustrates a screenshot 900 of a lottery alert screen of the system 100, according to an embodiment of the present invention. The lottery alert screen includes a lottery details section 905 providing an indication of the lottery the alert screen relates, as well as an indication of why the alert was triggered.

[0084] The lottery alert screen also includes sets of numbers 805, as described with reference to Figure 8. As such, no further action is required by the player to obtain the lottery numbers. This enables the player to quickly purchase a lottery ticket using the purchase ticket button 815.

[0085] The user may manually select which lotteries they wish to receive alerts from, and when an alert is triggered. As such, the player is able to ensure that the alerts are only issued when relevant.

[0086] Figure 10 illustrates a lottery method 1000, according to an embodiment of the present invention. The lottery method 1000 may be implemented by the system 100.

[0087] At step 1005, one or more user preferences are received from the user, the user preferences defining preferences relating lottery numbers and the user. As discussed above, the preferences may relate to non-numerical preferences, such as shapes, dates, colours and the like.

[0088] At step 1010, a set of lottery numbers is generated at least in part according to the user preferences. For example, if the user has a preferences for round shapes, the numbers 6, 8 and 9 may be given more preference (i.e. be statistically more likely to be generated in the set) than the number 4, which includes no curves.

[0089] At step 1015, the set of numbers is provided to the user. As discussed above, the numbers can be provided on a user interface that enables the user to purchase lottery tickets relating to the numbers.

[0090] While the entry of user preferences is described above with reference to a menu system, the skilled addressee will readily appreciate that the entry of user preferences may be provided in a survey like form, where the user is sequentially presented with a series of questions.

[0091] Similarly, the user preferences may be used to save ticket purchases (e.g. a favourite ticket) to allow for users to buy tickets in later draws with the same numbers as were previously
generated by the system.

[0092] These numbers may be saved based upon explicit instructions (e.g. a user manually selects to save the numbers when they are generated), or implicit (e.g. commonly used sets of numbers are saved)

[0093] According to certain embodiments, the system 100 enables numbers to be saved in association with a loyalty card or online account, enabling the user to purchase lottery tickets using the numbers in a separate online store, or in a bricks and mortar store. For example, the system may be provided on a personal computer, from which the player may generate the numbers and/or purchase the tickets.

[0094] According to certain embodiments, the system 100 may be configured to receive preferences from a plurality of users, and generate numbers based thereon. This is particularly advantageous for lottery syndicates (e.g. at a workplace), as it enables several players to be actively involved in the game.

[0095] In the present specification and claims (if any), the word ‘comprising’ and its derivatives including ‘comprises’ and ‘comprise’ include each of the stated integers but does not exclude the inclusion of one or more further integers.

[0096] Reference throughout this specification to ‘one embodiment’ or ‘an embodiment’ means that a particular feature, structure, or characteristic described in connection with the embodiment is included in at least one embodiment of the present invention. Thus, the appearance of the phrases ‘in one embodiment’ or ‘in an embodiment’ in various places throughout this specification are not necessarily all referring to the same embodiment. Furthermore, the particular features, structures, or characteristics may be combined in any suitable manner in one or more combinations.

[0097] In compliance with the statute, the invention has been described in language more or less specific to structural or methodical features. It is to be understood that the invention is not limited to specific features shown or described since the means herein described comprises preferred forms of putting the invention into effect. The invention is, therefore, claimed in any of its forms or modifications within the proper scope of the appended claims (if any) appropriately interpreted by those skilled in the art.
CLAIMS

1. A lottery method including:
   receiving, from a user, one or more user preferences, the user preferences defining
   preferences relating to lottery numbers;
   generating a set of lottery numbers at least in part according to the user preferences; and
   providing the set of numbers to the user.

2. The method of claim 1, wherein the preferences are indirectly associated with one or
   more numbers.

3. The method of claim 1, wherein the preferences include at least one of a shape
   preference, a colour preference, a date preference, a mathematical preference and a statistical
   preference.

4. The method of claim 1, wherein the set of numbers comprises a first set of numbers
   generated according to the user preferences, and a second set of numbers generated randomly, or
   pseudo-randomly.

5. The method of claim 1, wherein generating the set of lottery numbers comprises:
   assigning a probability to each of a plurality of numbers according to the user preferences; and
   generating the set of lottery numbers according to the probabilities.
ABSTRACT

A lottery method and system is provided. The lottery method includes receiving, from a user, one or more user preferences, the user preferences defining preferences relating lottery numbers and the user; generating a set of lottery numbers at least in part according to the user preferences; and providing the set of numbers to the user.
Figure 2

Please Enter Preferences

FAVOURITE COLOURS
IMPORTANT DATES
FAVOURITE NUMBERS
ODD/EVEN?
RANDOM NUMBERS?

SAVE

LOGO

Figure 3

Please Select Your Favourite Colours

CANCEL
SAVE
Alert!
Oz Lotto Jackpot has reached $10MILLION!

Or shake to get new numbers

PURCHASE TICKET

LOGO

PURCHASE TICKET

Or shake again to get new numbers

6 10 22 32 33 55
2 12 20 28 42 49
1 20 22 25 35 50
5 18 31 39 43 48
8 10 19 32 36 53
RECEIVE USER PREFERENCES RELATING LOTTERY NUMBERS

GENERATE A SET OF LOTTERY NUMBERS ACCORDING TO USER PREFERENCES

PROVIDE THE SET OF NUMBERS TO THE USER

Figure 10