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(54) Title: ELECTRONIC ENTERTAINMENT DEVICE

(57) Abstract: An electronic device comprises means (2) for acquiring at least one unique data item. The device also comprises means for deriving from the or each data item at least one attribute of a respective character in a game, and means for comparing the respective attributes of two or more characters to determine a winner.

Electronic Entertainment Device

The present invention relates to an electronic entertainment device.

5 More particularly, in certain aspects, the invention relates to an electronic game in which two characters having different respective attributes compete against one another.

10 It is known to provide a deck of cards, wherein each card is printed with the image of a respective character, along with a plurality of attributes associated with that character.

In use, the cards are dealt out amongst two or more players and a first player then calls out one or other of the attributes of the character printed on the top card of his respective hand.

15 Should the attribute called out by the first player better the corresponding attributes of the characters printed on the top cards of the hands of the or each other player, then the first player places all of those cards on the bottom of his hand. If, however, the corresponding attribute of the character printed on the top card of another player's hand betters that of the first player and that of any remaining player(s), then the
20 cards are instead placed on the bottom of said other player's hand.

For example, the cards may display a plurality of robots, having different respective attributes. The attributes of a first robot may comprise a relatively high degree of strength but limited agility and speed. If that robot were to be played against a
25 second robot having limited strength but relatively high agility and speed, then the first robot would "beat" the second robot, if the first robot's strength was called out, but would "lose" to the second robot, if either its agility or speed were to be called out instead.

30 Play continues until one or other of the players has acquired all of the cards in the deck or until a pre-determined period of time has expired, when the winning player is the one having the most cards in his hand.

35 It is a first object of the present invention to provide an electronic adaptation of the game described above.

In other respects, the invention relates to methods for presenting selected combinations of audio and/or video data via a cellular phone.

- 5 According to a first aspect of the present invention, there is provided an electronic device comprising means for acquiring at least one unique data item, means for deriving from the or each data item at least one attribute of a respective character, and means for comparing the respective attributes of two or more characters to determine a winner.

10

Preferably said electronic device comprises a hand-held electronic device.

The data acquiring means may, for example, comprise a keypad, a port for receiving an electronic memory card, a camera or a biometric sensor.

15

In the first case, the device may comprise a cellular phone, into which the keypad is incorporated, the or each data item comprising a respective phone number or other contact data entered into the phone via the keypad.

- 20 In the second case, the port may be arranged to receive the SIM card of a cellular phone, the device comprising either a cellular phone or a dedicated game playing handset, the or each data item comprising a respective phone number or other contact data stored in the SIM card.

- 25 In the third case, the device may comprise a cellular phone into which the camera is incorporated, the or each data item comprising the digital representation of an image obtained by the camera.

- 30 In the fourth case, the biometric sensor may comprise a fingerprint scanner or means for extracting one or more parameters of a spoken voice, the device comprising either a cellular phone or a dedicated game playing handset, the or each data item comprising a digital representation of said fingerprint or voice.

- 35 The device preferably comprises means for exchanging character attribute-defining data items with a second electronic device, preferably via a wireless communications

link. For example the communications link may comprise a "direct" infra-red or radio-frequency (e.g. Bluetooth) link, or an "indirect" link via a telecommunications network, whereby a data item is preferably exchanged by means of one or more SMS, MMS or email messages. In this case, the device is preferably arranged to store the character attribute-defining data item associated with a losing character.

Preferably the device is arranged to derive a plurality of attributes for the or each character, means being provided whereby a user may select one or other of those attributes for comparison with the corresponding attribute of a second character.

Preferably the device comprises means for displaying either a still or an animated image of the or each character and/or a graphical representation of the or each attribute of the or each character.

Preferably the or each attribute comprises, a respective, relative measure of a physical characteristic of a fighting character, such as a measure of the character's strength, skill, stamina, cunning, or expertise in exercising a fighting manoeuvre, such as a punch, a kick, a slam or a head-butt.

The or each data item may provide at least one relative measure or may instead provide at least one address for retrieving a pre-determined measure from a memory of the device.

According to a second aspect of the present invention, there is provided a game playing apparatus comprising a plurality of electronic devices, each device comprising means for acquiring at least one unique data item, means for deriving from the or each data item at least one attribute of a respective character, and means for comparing the respective attributes of two or more characters to determine a winner.

According to a third aspect of the present invention, there is provided a method for playing a game comprising providing an electronic device, and operating said device to store at least one unique data item in a memory thereof, to derive from the or each stored data item at least one attribute of a respective character, and to compare the respective attributes of two or more characters to determine a winner.

According to a fourth aspect of the present invention, there is provided software for operating an electronic device to acquire at least one unique data item, to derive from the or each data item at least one attribute of a respective character, and to compare
5 the respective attributes of two or more characters to determine a winner.

According to a fifth aspect of the present invention, there is provided an apparatus arranged to associate at least 2 items of data (e.g. text and/or graphics and/or audio data) with stored contact data for at least one person.
10

Said stored contact data may comprise a telephone number, with which said at least 2 items of data are associated according to the values of respective subsets of the component digits of that number, or with a person's name, address, email address, etc., or a combination of each of the aforesaid.
15

Preferably said apparatus comprises a cellular phone arranged to store a plurality of images (e.g. graphical or textual images) and/or sound clips, and to select at least one image for display and/or at least one sound clip to be played, according to respective portions of a person's telephone number and/or name, for example when
20 a call is received from that person.

Where a person's telephone number is used, said respective portions preferably comprise numbers drawn from a tail portion of the telephone number, as such numbers can be shown to be more randomly distributed, in general, than those at the
25 start of a telephone number.

For example, the last 4 digits of a person's telephone number might be processed, to respectively determine which of 10 possible background images, 10 possible foreground images, 10 possible textual messages and 10 possible sound clips are to
30 be combined to provide a composite audio-visual output. Thus, a call from a person having the telephone number *****2116 might give rise to an image being displayed comprising background image number 2, foreground image number 1 and textual message number 1, along with sound clip number 6.

Alternatively, the last 4 characters of a person's name might, for example, be processed, to respectively determine which of 26 possible background images, 26 possible foreground images, 26 possible textual messages and 26 possible sound clips are to be combined to provide a composite audio-visual output. Thus, a call
5 from a person having the stored name DAVID might give rise to an image being displayed comprising background image number 1 (A), foreground image number 22 (V) and textual message number 9 (I), along with sound clip number 4 (D).

Preferably said cellular phone is arranged to download said plurality of images and/or
10 said plurality of sound clips from a remote server, preferably by providing the remote server with a unique identification code, e.g. obtained from a scratch-card.

Preferably, said at least 2 items of data are associated with said stored contact data according to at least one value which changes in use of the phone, for example said
15 at least one value may comprise a time or date and/or a location value or may be derived from the contents of a dynamic call or message log.

According to a sixth aspect of the present invention, there is provided a method comprising associating at least 2 items of data (e.g. text and/or graphics and/or audio
20 data) with stored contact data for at least one person.

According to a seventh aspect of the present invention, there is provided software for operating an apparatus to associate at least 2 items of data (e.g. text and/or graphics and/or audio data) with stored contact data for at least one person.
25

According to an eighth aspect of the present invention, there is provided a cellular phone arranged to present a selected visual image or audio clip to a user, according to at least one value, stored in the phone, which changes in use of the phone.

30 For example, the phone may be arranged to present images or audio clips which differ from one another according to the prevailing time or date and/or geographical location of the phone.

According to a ninth aspect of the present invention, there is provided a method comprising presenting a selected image or audio clip via a cellular phone, according to at least one value, stored in the phone, which changes in use of the phone.

- 5 According to a tenth aspect of the present invention, there is provided software for operating a cellular phone to present a selected image or audio clip according to at least one value, stored in the phone, which changes in use of the phone.

Embodiments of the present invention will now be described, by way of examples
10 only and with reference to the accompanying drawings, of which:

Figure 1 is a perspective view of a first embodiment of hand-held electronic device in accordance with the present invention;

- 15 Figure 2 is a plan view of a pair of first embodiment devices arranged for the exchange of data therebetween;

Figure 3 is a perspective view of a second embodiment of hand-held electronic device in accordance with the present invention;

20

Figure 4 to 7 are a series of screen displays illustrating the derivation of character attributes; and

- 25 Figure 8 is a series of drawings illustrating how selected text, visual and audio assets might be combined to provide a substantially unique audio-visual display for a cellular phone.

Referring to Figure 1 of the drawings, a hand-held electronic device is shown comprising a fingerprint scanner 2 for acquiring a unique digital representation of a
30 fingerprint, from which a plurality of attributes may then be derived for a unique character associated with that fingerprint.

A plurality of fingerprints may be scanned to derive the respective attributes of a corresponding number of characters, each set of attributes comprising measures of a

character's expertise in the fighting techniques of punching, kicking, slamming, head-butting and long-range fighting.

Two games may be played using the handset of Figure 1. The first game requires a user to twist a handle 4 of the handset to select one or other of the characters for which a set of attributes have been derived (an image of the selected character being displayed in a first display window 6), to then select one of the attributes associated with that character by scrolling upwards or downwards through a list of attributes displayed in a second window 8 by operating a toggle button 10 and to then confirm both selections by pressing an "attack" button 12.

The selected attribute is then automatically compared with the corresponding attribute of a character generated either in sequence or at random by the device, to determine which of the selected attributes of the two characters betters the other.

The second game, selected by the pressing of a "two-player" button 14, requires the users of two identical handsets to select respective characters and to then exchange the data defining the various attributes of those characters with one another's handsets, via an infra-red communications link, as illustrated in Figure 2.

In this case, the pressing of a first player's "attack" button 12 will result in a selected attribute of that player's character being compared with the corresponding attribute of the other player. If the character attribute selected by the first player betters the corresponding attribute of the second player's character, then the data defining the attributes of the second player's character is stored in the first player's handset and the first player may then select a further character and attribute combination. However, if the character attribute selected by the first player does not better the corresponding attribute of the second player, then the data defining the attributes of the first player's character is stored in the handset of the second player and play passes to the second player.

Referring to Figure 2 of the drawings, an electronic handset in the form of a cellular phone is shown comprising a display screen 16 and an alphanumeric keypad 18. Software downloaded to the phone from a remote server or pre-installed on the phone, associates a unique character with each of the telephone numbers stored in a

memory of the phone (which may comprise a SIM card), each of those characters having a respective set of attributes derived from its associated phone number, according to the prevailing time or geographical location of the phone. For example, the "Diznemba" character associated with the phone number 07799648712 may
5 have levels of strength, skill, stamina and cunning derived from its first three, second three, third three and final two numbers respectively, as illustrated in Figures 4 to 7.

As with the handset of Figure 1, either a single player or a two player game may be played using the cellular phone handset, the latter game being enabled either by the
10 use of a "direct" infra-red or Bluetooth communications link between two cellular phones or by the use of an "indirect" telecommunication link, via a server.

With reference to Figure 8, a further embodiment of the present invention is illustrated, wherein a plurality of audio and visual assets, downloaded from a server,
15 are combined according to the values which make up respective subsets of a telephone number stored in a cellular phone, to provide a substantially unique audio-visual display for each number stored in the phone, either when a particular stored contact is selected by a user from the memory of the phone or of a SIM-card fitted thereto and/or automatically, when a call is received from a new or pre-stored
20 contact.

Thus, the example phone number 07736 684352, when broken down into its various numerical components, as shown in Figure 8, would cause a melody "2" (of up to 10 possible melodies) to be played in combination with the text, foreground and
25 background images numbered "5", "3" and "4", respectively.

The devices thus described, with reference to Figures 1 to 7, provide convenient means whereby the respective attributes of a number of characters may be derived and compared with one another to provide a competitive game and, with reference to
30 Figure 8, a convenient means for associated a substantially unique audio/visual presentation with each of a plurality of different callers.

Claims

- 1) An electronic device comprising means for acquiring at least one unique data item, means for deriving from the or each data item at least one attribute of a
5 respective character in a game, and means for comparing the respective attributes of two or more characters to determine a winner.
- 2) An electronic device as claimed in Claim 1, wherein said data acquiring means comprise a keypad.
10
- 3) An electronic device as claimed in Claim 2, comprising a cellular phone, into which the keypad is incorporated, the or each data item comprising a respective phone number entered into the phone via the keypad.
- 15 4) An electronic device as claimed in Claim 1, wherein said data acquiring means comprise a port for receiving an electronic memory card
- 5) An electronic device as claimed in Claim 4, wherein said port is arranged to receive the SIM card of a cellular phone, the or each data item comprising a
20 respective phone number stored in said SIM card.
- 6) An electronic device as claimed in Claim 5, comprising a cellular phone into which said port is incorporated.
- 25 7) An electronic device as claimed in Claim 1, wherein said data acquiring means comprise a camera, the or each data item comprising the digital representation of an image obtained by said camera.
- 8) An electronic device as claimed in Claim 7, comprising a cellular phone into
30 which said camera is incorporated.
- 9) An electronic device as claimed in Claim 1, wherein said data acquiring means comprise a biometric sensor.

- 10) An electronic device as claimed in Claim 9, wherein said biometric sensor comprises a fingerprint scanner, the or each data item comprising a digital representation of a fingerprint.
- 5 11) An electronic device as claimed in Claim 9, wherein said biometric sensor comprises means for extracting one or more parameters of a spoken voice, the or each data item comprising a digital representation of said voice.
- 12) An electronic device as claimed in any of claims 9 to 11, comprising a cellular
10 phone, into which said biometric sensor is incorporated.
- 13) An electronic device as claimed in any preceding claim, comprising means for exchanging character attribute-defining data items with a second electronic device.
- 15 14) An electronic device as claimed in Claim 13, wherein said exchanging means comprise a wireless communications link.
- 15) An electronic device as claimed in Claim 14, wherein said wireless
communications link comprises an infra-red link.
20
- 16) An electronic device as claimed in Claim 14, wherein said wireless
communications link comprises a radio-frequency link.
- 17) An electronic device as claimed in Claim 14, wherein said wireless
25 communications link comprises a link via a telecommunications network.
- 18) An electronic device as claimed in Claim 17, wherein a data item is
exchanged by means of one or more SMS, MMS or email messages.
- 30 19) An electronic device as claimed in any of Claims 13 to 19, arranged to store
the character attribute-defining data item associated with a losing character.
- 20) An electronic device as claimed in any preceding claim, arranged to derive a
plurality of attributes for the or each character, means being provided whereby a user

may select one or other of those attributes for comparison with the corresponding attribute of a second character.

21) An electronic device as claimed in any preceding claim, comprising means for
5 displaying either a still or an animated image of the or each character.

22) An electronic device as claimed in any preceding claim, comprising means for displaying a graphical representation of the or each attribute of the or each character.

10 23) An electronic device as claimed in any preceding claim, wherein the or each attribute comprises a respective, relative measure of a physical characteristic of a fighting character.

24) An electronic device as claimed in Claim 23, wherein the or each data item
15 provides at least one relative measure.

24) An electronic device as claimed in Claim 23, wherein the or each data item provides at least one address for retrieving a pre-determined measure from a memory of the device.
20

25) An electronic device as claimed in any preceding claim, comprising a hand-held electronic device.

26) An electronic device as claimed in any preceding claim, wherein said at least
25 one data item comprises a data item which changes in use of the device.

27) An electronic device as claimed in Claim 26, wherein said at least one data item comprises time or date data.

30 28) An electronic device as claimed in Claim 26, wherein said at least one data item comprises location data.

29) An electronic device as claimed in Claim 26, wherein said at least one data item is derived from the contents of a dynamic call or message log.
35

30) A game playing apparatus comprising a plurality of electronic devices, each device comprising means for acquiring at least one unique data item, means for deriving from the or each data item at least one attribute of a respective character in a game, and means for comparing the respective attributes of two or more characters
5 to determine a winner.

31) A method for playing a game comprising providing an electronic device, and operating said device to store at least one unique data item in a memory thereof, to derive from the or each stored data item at least one attribute of a respective
10 character, and to compare the respective attributes of two or more characters to determine a winner.

32) Software for operating an electronic device to acquire at least one unique data item, to derive from the or each data item at least one attribute of a respective
15 character in a game, and to compare the respective attributes of two or more characters to determine a winner.

33) An apparatus arranged to associate at least 2 items of data with stored contact information for at least one person.
20

34) An apparatus arranged to associate at least 2 items of data with a telephone number according to the values of respective subsets of the component digits of that number.

25 35) An apparatus arranged to associate at least 2 items of data with a name according to the values of respective subsets of the component characters of that name.

36) An apparatus as claimed in any of Claims 33 to 35, wherein said data are
30 selected from text and/or graphics and/or audio data.

37) An apparatus as claimed in Claim 34, comprising a cellular phone arranged to store a plurality of images and/or sound clips, and to select at least one image for display and/or at least one sound clip to be played, according to respective portions
35 of a person's telephone number.

- 38) An apparatus as claimed in Claim 37, wherein said respective portions comprise numbers drawn from a tail portion of a person's telephone number.
- 5 39) An apparatus as claimed in Claim 35, comprising a cellular phone arranged to store a plurality of images and/or sound clips, and to select at least one image for display and/or at least one sound clip to be played, according to respective portions of a person's name.
- 10 40) An apparatus as claimed in any of Claims 33 to 39, arranged to download said plurality of images and/or said plurality of sound clips from a remote server.
- 41) An apparatus as claimed in Claim 40, arranged to download said plurality of images and/or said plurality of sound clips from a remote server, by providing the
15 remote server with a unique identification code.
- 42) An apparatus as claimed in any of Claims 33 to 41, wherein said at least 2 items of data are associated with a telephone number according to at least one value which changes in use of the apparatus.
20
- 43) An apparatus as claimed in Claim 42, wherein said at least one value comprises a time or date value.
- 44) An apparatus as claimed in Claim 42, wherein said at least one value
25 comprises a location value.
- 45) An apparatus as claimed in Claim 42, wherein said at least one value is derived from the contents of a dynamic call or message log.
- 30 46) A method comprising associating at least 2 items of data with stored contact data for at least one person.
- 47) Software for operating an apparatus to associate at least 2 items of data with stored contact data for at least one person.
35

- 48) A cellular phone arranged to present a selected visual image or audio clip to a user, according to at least one value, stored in the phone, which changes in use of the phone.
- 5 49) A cellular phone as claimed in Claim 48, arranged to present images or audio clips which differ from one another according to the prevailing time or date.
- 50) A cellular phone as claimed in Claim 48, arranged to present images or audio clips which differ from one another according to the prevailing geographical location
10 of the phone.
- 51) A method comprising presenting a selected image or audio clip via a cellular phone, according to at least one value, stored in the phone, which changes in use of the phone.
- 15 52) Software for operating a cellular phone to present a selected image or audio clip according to at least one value, stored in the phone, which changes in use of the phone.

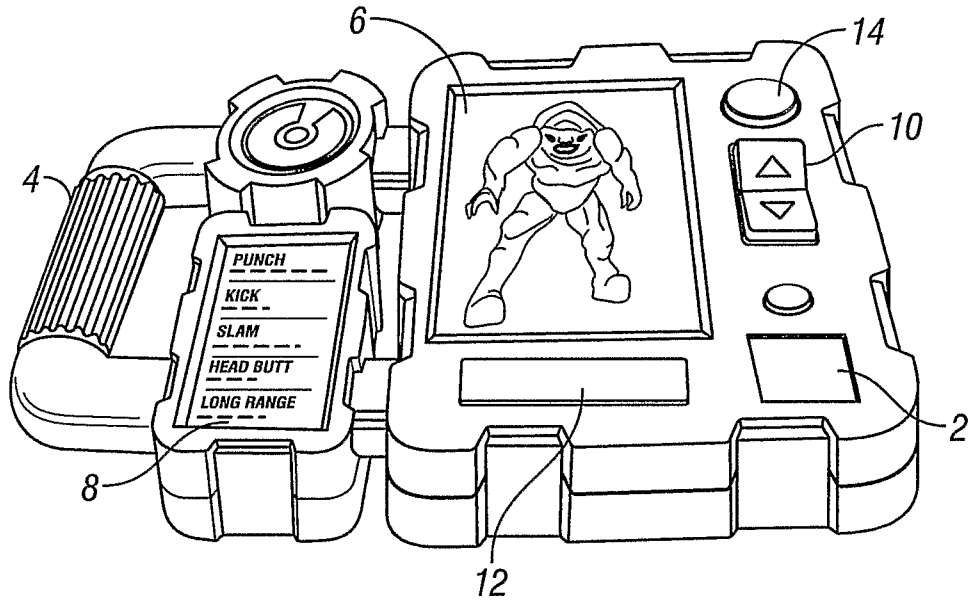


FIG. 1

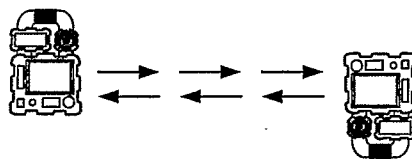


FIG. 2

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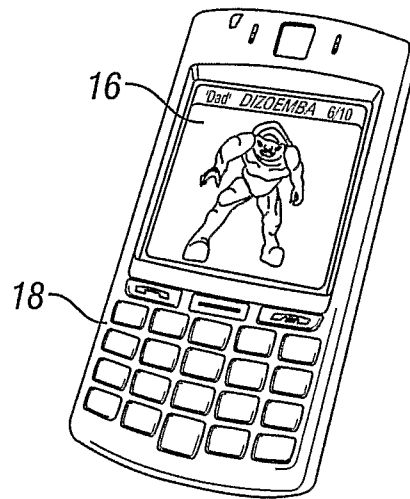


FIG. 3

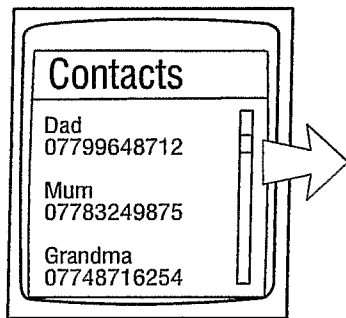


FIG. 4

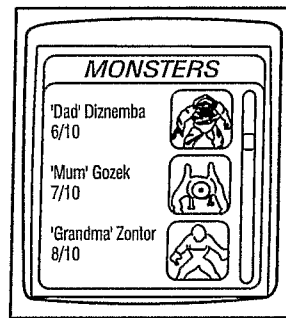


FIG. 5

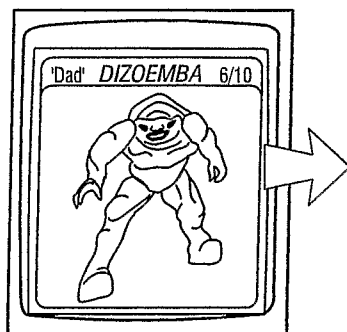


FIG. 6

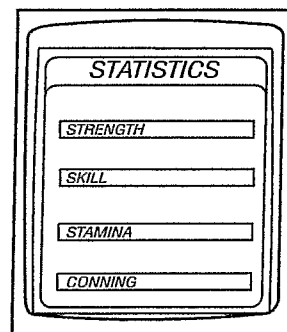


FIG. 7

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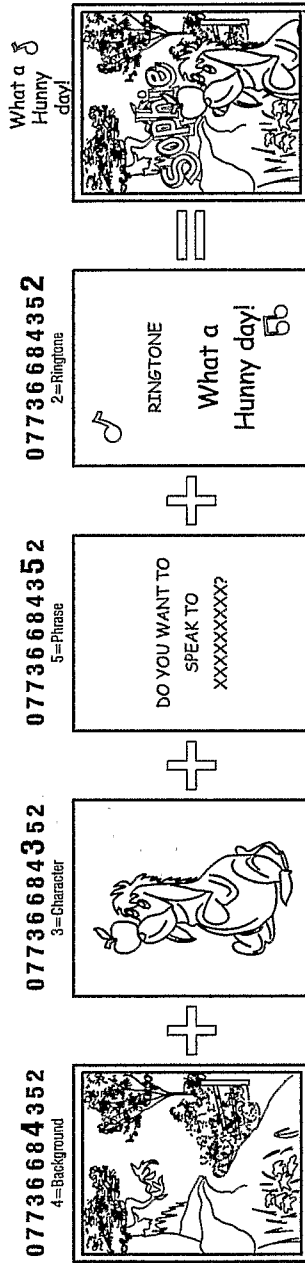


FIG. 8