FIGURINE TOY IN COMBINATION WITH A PORTABLE, REMOVABLE WIRELESS COMPUTER DEVICE HAVING A VISUAL DISPLAY SCREEN

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ABSTRACT

The combination of a figurine toy and a smartphone-type device, along with display-controlling software apps, the figurine toy having a receptacle, receiving pocket or mating area adapted and structured to temporarily receive and retain the smartphone-type device such that the visual display of the smartphone-type device presents animated facial features for the figurine toy, the smartphone-type device covering the static facial features of the figurine toy when received by the figurine toy.
FIGURINE TOY IN COMBINATION WITH A PORTABLE, REMOVABLE WIRELESS COMPUTER DEVICE HAVING A VISUAL DISPLAY SCREEN

[0001] This application claims the benefit of U.S. Provisional Patent Application Ser. No. 61/543,963, filed Oct. 6, 2011, the disclosure of which is incorporated herein by reference.

BACKGROUND OF THE INVENTION

[0002] This invention relates generally to the field of figurine toys representing an animal, person or animated creature having a face. The invention also relates generally to figurine toys or other objects adapted to receive and retain a portable wireless computer device having a visual display screen, wherein software applications control the visual display.

[0003] Portable, hand-held, wireless computer devices that are smaller than laptop computers are well known, such as for example tablets, smartphones, gaming devices, music players or like devices having display screens. Tablets are represented for example by devices such as the Ipad or Iphone. Smartphones are represented for example by devices such as the Iphone or Droid. Gaming devices are represented for example by devices such as PlayStation gaming systems. Music players are represented for example by devices such as Ipods or MP3 players. Tablets and smartphones, as well as some gaming devices and music devices, share certain features, such as a generally rectangular shape with a prominent display screen and no hinged cover, wireless communication ability via a global communication network (i.e., the Internet) or cell networks, and the ability to download or run a multitude of software programs or applications (commonly referred to as apps) that accomplish various tasks. For simplicity, the term “smartphone-type device” shall be used herein to reference, define and include any suitable tablet, smartphone, gaming device or music player having a visual display screen.

[0004] In similar manner, the term “figurine toy” shall be used herein to reference, define and include any type of toy that includes, normally includes or presents a face possessing facial features (e.g., eyes, nose and mouth) such as for example dolls, stuffed animals, plush animals, robots, imagined creatures or the like, wherein in a particular embodiment or status the face or facial features may be hidden upon combination with the smartphone-type device, i.e., upon insertion of the smartphone-type device into a receptacle, pocket or the like provided in the figurine toy. In addition, the figurine toy may present other anatomical features, e.g., a belly, the skull, legs, arms, etc., wherein in a particular embodiment or status the anatomical features may be hidden upon combination with the smartphone-type device.

[0005] Alternatively, the object retaining the smartphone-type device may comprise a medium to present a two-dimensional drawings of a person, animal, object or entity that includes, normally includes or presents a face having facial features, wherein in a particular embodiment or status the face or facial features, or anatomical features, are not visibly present, such as may be presented in book-form or in a single sheet.

[0006] Various temporary holders for smartphone-type devices are known, and some of these holders are provided as figurine toys. However, such figurine toys lack the improved features present in the current invention as disclosed and described herein—most particularly the presence of static facial features. The presence of static facial figures on the figurine toy allows the toy to be utilized as a complete and independent toy when the smartphone-type device is not combined with the figurine toy to present animated facial features.

SUMMARY OF THE INVENTION

[0007] In a broad sense, the invention comprises the combination of a figurine toy and a smartphone-type device, along with display-controlling software. The figurine toy comprises a receptacle, receiving pocket or mating area (provided for example with releasable fasteners, elastic straps, snaps, plastic frame or the like) adapted and structured to temporarily receive and retain the smartphone-type device such that the display screen of the smartphone-type device remains visible. In one embodiment, the receptacle is located in the head or face of the figurine toy and comprises an opening through which the display screen of the smartphone-type device is exposed for viewing when the smartphone-type device is positioned in the receptacle.

[0008] Preferably, a retention member, such as for example a releasable flap or strap, is provided to better retain the smartphone-type device within the figurine toy during use.

[0009] The display-controlling software application or app provides a visible animated display on the display screen of the smartphone-type device, the animated display comprising all or some facial features such as the eyes, nose and mouth when the receptacle is located at the face location. With the smartphone-type device properly positioned within the receptacle of the figurine toy, the animated display becomes the face or facial features of the figurine toy when viewed by the user. The animated display may be interactive or non-interactive with the user. In the non-interactive mode, predetermined facial actions and movements (e.g., smiling, wink, talking, singing, other images, etc.) will be presented to the user by the app. In the interactive mode, the facial actions and movements presented to the user by the app will be responsive to physical or verbal input from the user, such as by touching certain areas, tilting or other movement, or communication from other electronic devices. Activation of the visible animated display may require user action or may be automatically triggered upon insertion into the receptacle of the figurine toy. Most preferably, the apps will present two operational modes—one visible display being the animated facial expressions and the other being a traditional story telling, game playing mode featuring an animated character or characters, preferably matching the character presented by the figurine toy.

[0010] In a preferred embodiment, the invention is the combination of a figurine toy and a removable smartphone-type device; said smartphone-type device comprising a visual display screen and controlled by one or more software applications whereby animated facial features are presented on said visual display screen, wherein said smartphone-type device is chosen from the group of smartphone-type devices consisting of portable computer tablets, smartphones, gaming devices and music players, and wherein said one or more software applications provide a first mode presenting animated facial features on said visual display screen and a second mode presenting story telling or game playing on said visual display screen; said figurine toy comprising static facial features and a receptacle adapted to receive and retain said smartphone-type device, said receptacle comprising a...
front opening positioned such that said static facial features are visible through said front opening when said smartphone-type device is removed from said receptacle, and further wherein said receptacle is structured such that said static facial features are obscured by said smartphone-type device and said visual display screen of said smartphone-type device is visible through said front opening when said smartphone-type device is retained within said receptacle; whereby with said smartphone-type device positioned within said receptacle of said figurine toy, said animated facial features are presented in place of said static facial features. The invention may further embody a sensor mechanism positioned within said receptacle, said sensor mechanism adapted to communicate with said smartphone-type device upon insertion or removal of said smartphone-type device from said receptacle; wherein upon insertion of said smartphone-type device into said receptacle, said one or more software applications automatically provides said first mode presenting animated facial features on said visual display screen, and further wherein upon removal of said smartphone-type device from said receptacle, said one or more software applications provides said second mode presenting story telling or game playing displays on said visual display screen.

BRIEF DESCRIPTION OF THE DRAWINGS

[0011] FIG. 1 shows a representative embodiment of a figurine toy prior to combination with a smartphone-type device, the figurine toy comprising an animal body, wherein the facial features of the figurine toy are static embroidered elements present on the rear wall of the smartphone-type device receptacle.

[0012] FIG. 2 shows the figurine toy embodiment of FIG. 1 during insertion of the smartphone-type device into the receptacle, whereby the static facial features of the figurine toy will be obscured by the smartphone-type device.

[0013] FIG. 3 shows the figurine toy embodiment of FIG. 1 in combination with a smartphone-type device, the smartphone-type device being fully received in the receptacle such that the display screen of the smartphone-type device is exposed through the forward opening of the receptacle and the static embroidered elements are covered by the smartphone-type device and the facial features visible through the receptacle opening are animated images on the smartphone-type device display screen.

[0014] FIG. 4 is a top view showing the figurine toy embodiment of FIG. 3 with the retention member opened to expose the smartphone-type device as received within the receptacle of the figurine toy.

[0015] FIG. 5 shows multi-page book in combination with a smartphone-type device, the smartphone-type device positioned in a receptacle formed on the inside back cover of the book, the pages of the book each having a viewing window such that the display screen of the smartphone-type device is exposed, such that the facial features visible through the receptacle opening are images on the smartphone-type display screen.

DETAILED DESCRIPTION OF THE INVENTION

[0016] With reference to the drawings, the invention in various embodiments will now be described in detail, the illustrations being presented as non-limiting representations such that the shape and dimensions of the figurine toys and the smartphone-type devices, for example, may vary.

[0017] A preferred embodiment of the invention is depicted in FIGS. 1-4, wherein the figurine toy 10 comprises a stuffed or plush animal having a body 11, head 12, ears 42 and appendages (legs or arms) 41. The face of the figurine toy 10 as shown in FIG. 1 prior to combination with a smartphone-type device 20 comprises static facial features 18 (eyes, nose and mouth) positioned on the rear wall 14 of a receptacle 13, the static facial features 18 being visible through the front opening 15 of the receptacle 13. In this status, the figurine toy 10 visually presents itself as a complete and independent figurine toy, capable of play interaction using imagination. It is to be understood that the embodiment shown for the figurine toy 10 is but an example of a myriad of possible shapes and depictions, and the scope of the invention is not to be limited by the representative depiction shown in FIGS. 1 through 4. For example, figurine toy 10 could be presented in the shape of any animal, human figure, doll, robot, etc. having static facial features in the form of eyes, nose, mouth or the like.

[0018] The receptacle 13 is a generally rectangular void, pocket, mating configuration or other construct adapted to receive and retain a smartphone-type device 20 such that the smartphone-type device 20 is temporarily yet securely retained within the receptacle 13 with the display screen 21 of the smartphone-type device 20 visible through the front opening 15 of the receptacle 13, as shown in FIG. 3. In one embodiment, the head 12 of the figurine toy 10 is provided with compressible padding behind the rear wall 14 of the receptacle 13 such that retention pressure is applied to the smartphone-type device 20 when it is inserted into the receptacle 13. The front opening 15 of the receptacle 13 may be provided with an elastic perimeter for retention of the smartphone-type device 20. In another alternative embodiment, a releasable retention member 17, shown as a flap with releasable fasteners 19 as shown in FIGS. 2 and 4, may be provided, the retention member 17 being positioned at the top of the receptacle 13 as shown in the drawings or to the side such that an insertion opening or slot 16 is formed, the smartphone-type device 20 being inserted or removed from the receptacle 13 by opening the retention member 17, as shown in FIG. 2. It is preferred that the retention member 17 be not readily discernable once the smartphone-type device 20 has been inserted so as not to detract from the visual presentation of the figurine toy 10. Alternatively, the receptacle 13 may comprise mechanical connections or relatively rigid frame members to temporarily retain the smartphone-type device 20 within the figurine toy 10. For example, the receptacle 13 may comprise a pair of releasable or elastic strap members into which the smartphone-type device is inserted, such that the rear wall 14 of the receptacle 13 is actually the external surface of the figurine toy 10 located behind and between the strap members.

[0019] With the smartphone-type device 20 positioned in the receptacle 13 as shown in FIG. 3, animated facial features 22 (e.g., eyes, nose, mouth) produced by dedicated software apps will be visible on the display screen 21 through the front opening 15 of the receptacle 13, such that the face of the figurine toy 10 comprises the animated facial features 22 displayed by the smartphone-type device 20. The apps produce motion for the features 22 and sound effects, such as voice, animal sounds, snoring, laughing, etc., such that for example the figurine toy 10 can be made to talk, laugh, sleep, look in different directions, wink, change facial expressions, etc. The software apps may be non-interactive with pre-de-
terminated motion and sound, or may be interactive such that motion and sound is responsive to physical or verbal cues provided by the user (e.g., saying certain words, pressing an arm or a leg, petting the head, tilting, rocking, spinning, shaking or moving the figurine toy 10, etc.).

[0020] In an alternative embodiment, it is also contemplated to provide sensing or recognition mechanisms 23 to communicate or control the smartphone-type device 20 such that the smartphone-type device 20 is aware of its status upon being inserted into the receptacle 13 of the figurine toy 10 or upon being separated from the figurine toy 10, such that the differing visual displays and programs are automatically activated. For example, upon insertion into the figurine toy 10, the smartphone-type device 20 app may automatically shift into the animated facial feature mode. Upon removal of the smartphone-type device 20 from the figurine toy 10, the smartphone-type device 20 app shifts to a traditional story telling or game playing mode, preferably related in content to the figurine toy 10. Any suitable sensor or mechanism 23 may be utilized to present the proper command to the smartphone-type device 20 app upon insertion or removal, such as for example physical contacts detectable by the display screen through pressure, magnetism, electronic signal or the like.

[0021] Another smartphone-type device receiving object is shown in FIG. 5, wherein a multi-page book 30 is shown that comprises multiple two-dimensional drawings, paintings or other representations of animals, entities, dolls, robots, etc. 100 having or expected to have facial features. The pages 31 of the book 30 are provided with a viewing window 32 to collectively define or expose a receptacle 33 formed in the inside back cover of the book 30. The back of the receptacle is provided with static facial features. As shown in FIG. 5, the smartphone-type device 20 is positioned in the receptacle 33 with the display screen 21 exposed through the front viewing window 32. In this manner the animated facial features 22 appear to form the face of the two dimensional drawing 100. As before, the dedicated software applications produce motion for the features 22 and sound effects, such as voice, animal sounds, snoring, laughing, etc., such that for example the drawing 100 can be made to talk, laugh, sleep, look in different directions, wink, change facial expressions, etc. The software applications may be non-interactive with pre-determined motion and sound, or may be interactive such that motion and sound is responsive to physical or verbal cues provided by the user (e.g., saying certain words, turning a page, etc.). In this embodiment, the software applications may allow the book 30 to be read aloud by the animated facial features 22 as the pages are turned, for example.

[0022] The dedicated software applications in effect create a virtual facial pet, i.e., a figurine toy 10 with animated facial features, or enhance the overall story with audio content or commands, when the smartphone-type device 20 is combined with the figurine toy 10, with an infinite number of possible story lines, character presentations and interactive communications and actions. In addition, the dedicated software applications will also allow the smartphone-type device 20 to present animated video presentations of a virtual pet when separated from the figurine toy 10, such as the type normally seen on a DVD player, computer screen, television or the like, such that episodic stories, detailed character information, etc. can be presented to the user.

[0023] Whether interactive or non-interactive, the software applications provide for a multitude of story lines, characters, actions and the like. For example, a software application for a virtual facial pet with the smartphone-type device combined with the figurine toy 10 may operate in the following manner:

[0024] The user places the smartphone-type device 20 into the receptacle 13 of the figurine toy 10, then presses a facial icon to initiate the animated facial features 22, such as big eyes, jowl and mouth. The user “greetings” the figurine character, such as a puppy character for example, and the puppy responds with happy barks. The user spins the figurine toy 10 around and the puppy’s eyes spin around and graphics of birds flying around in circles are shown. The user asks the figurine toy 10 if he/she can “color” the puppy. The puppy responds and a color palette appears on one side of screen. Touch the pink color and the facial fur background changes from creme to pink. Touch the blue icon and the eyes change from brown to blue. The user says you need a bath, puppy. Scrub brush icon appears and the user gives the puppy a scrub. Bubbles appear on screen and water droplets. Once scrubbing is done, puppy blows several bubbles which the user can pop. User can “shake” the figurine toy 10 back and forth and the animated facial features 22 shake from side to side quickly to shake off the bubbles and water. The user can “blow” puppy a kiss via the smartphone-type device 20 microphone and a large heart appears on the puppy’s jowl. The user can press a silly facial icon and the puppy can go through a series of funny facial looks and sounds. The user can select a song from a music playlist. The song will play and the puppy will sing to it with appropriate graphics on the display screen 21. The user can select a movie file and click into the “bubble” (what is puppy thinking of) mode and the movie file will appear on screen. The user lays the puppy on its back and says it is time to go to sleep. Puppy’s eyes begin to get sleepy, yawns, and begins to sleep. Snoring sounds are heard, “zzzz” dance across the screen, and the “dream” bubble appears showing what the puppy is dreaming about.

[0025] Software applications that provide for a virtual pet when the smartphone-type device 20 is not combined with the figurine toy 10 may operate in the following manner:

[0026] The user touches the display screen 21 and the software application opens. The user “names” the figurine toy 10, e.g., a puppy, and inputs the user’s name. The software responds to both inputs. The user selects one of several icons on the screen. Examples of the icons:

[0027] a. Biscuit Bone—When the puppy behaves or does a trick, the user can give the puppy a treat.

[0028] b. Ball—the user can select ball and throw it by putting a finger on the ball icon and “licking it”. Puppy chases after it and retrieves it.

[0029] c. Doghouse—User can press the doghouse icon and it is time for puppy to go to sleep in doghouse.

[0030] d. Heart—the puppy can receive kisses/love by user touching the heart icon and hearts appear on screen as puppy chases after and “eats” the hearts on the display screen 21. Happy barks. Puppy can also receive a “kiss” by user “blowing” (i.e., making sound) into the microphone and then seeing a heart appear on screen and fly into the puppy’s jowl.

[0031] e. Pet Face—user can touch the icon and another puppy can appear on screen and interact with the user’s puppy. The user can “pick up” rope from bottom of
display screen 21 and both puppies can play tug of war. Tilt screen to watch the puppies slide from one side to the other.

[0032] It is understood that equivalents and substitutions for certain elements and structures set forth above may be obvious to those of ordinary skill in the art, and therefore the true scope and definition of the invention is to be as set forth in the following claims. We claim:

1. A figurine toy comprising static facial features and a receptacle adapted to receive and retain a smartphone-type device having a visual display screen, said receptacle comprising a front opening positioned such that said static facial features are visible through said front opening, and further wherein said receptacle is structured such that said static facial features are obscured by said smartphone-type device and said visual display screen of said smartphone-type device is visible through said front opening when said smartphone-type device is retained within said receptacle.

2. The figurine toy of claim 1, further comprising a retention member adapted to secure said smartphone-type device within said receptacle.

3. The figurine toy of claim 2, wherein said retention member comprises a flap member secured by a releasable fastener.

4. The figurine toy of claim 1, further comprising a sensor mechanism positioned within said receptacle, said sensor mechanism adapted to communicate with said smartphone-type device upon insertion or removal of said smartphone-type device from said receptacle.

5. The combination of a figurine toy and a removable smartphone-type device; said smartphone-type device comprising a visual display screen and controlled by one or more software applications whereby animated facial features are presented on said visual display screen;

6. The combination of claim 5, wherein said one or more software applications provide a first mode presenting animated facial features on said visual display screen and a second mode presenting story telling or game playing displays on said visual display screen.

7. The combination of claim 6, wherein said figurine toy further comprises a sensor mechanism positioned within said receptacle, said sensor mechanism adapted to communicate with said smartphone-type device upon insertion or removal of said smartphone-type device from said receptacle.

8. The combination of claim 7, wherein upon insertion of said smartphone-type device into said receptacle, said one or more software applications automatically provides said first mode presenting animated facial features on said visual display screen, and further wherein upon removal of said smartphone-type device from said receptacle, said one or more software applications provides said second mode presenting story telling or game playing displays on said visual display screen.

9. The figurine toy of claim 5, further comprising a retention member adapted to secure said smartphone-type device within said receptacle.

10. The figurine toy of claim 9, wherein said retention member comprises a flap member secured by a releasable fastener.

11. The combination of a figurine toy and a removable smartphone-type device;

said smartphone-type device comprising a visual display screen and controlled by one or more software applications whereby animated facial features are presented on said visual display screen, wherein said smartphone-type device is chosen from the group of smartphone-type devices consisting of portable computer tablets, smartphones, gaming devices and music players, and wherein said one or more software applications provide a first mode presenting animated facial features on said visual display screen and a second mode presenting story telling or game playing displays on said visual display screen;

said figurine toy comprising static facial features and a receptacle adapted to receive and retain said smartphone-type device, said receptacle comprising a front opening positioned such that said static facial features are visible through said front opening when said smartphone-type device is removed from said receptacle, and further wherein said receptacle is structured such that said static facial features are obscured by said smartphone-type device and said visual display screen of said smartphone-type device is visible through said front opening when said smartphone-type device is retained within said receptacle;

whereby with said smartphone-type device positioned within said receptacle of said figurine toy, said animated facial features are presented in place of said static facial features.

12. The combination of claim 11, wherein said figurine toy further comprises a sensor mechanism positioned within said receptacle, said sensor mechanism adapted to communicate with said smartphone-type device upon insertion or removal of said smartphone-type device from said receptacle;

wherein upon insertion of said smartphone-type device into said receptacle, said one or more software applications automatically provides said first mode presenting animated facial features on said visual display screen, and further wherein upon removal of said smartphone-type device from said receptacle, said one or more software applications provides said second mode presenting story telling or game playing displays on said visual display screen.

13. The figurine toy of claim 12, further comprising a retention member adapted to secure said smartphone-type device within said receptacle.

14. The figurine toy of claim 13, wherein said retention member comprises a flap member secured by a releasable fastener.

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