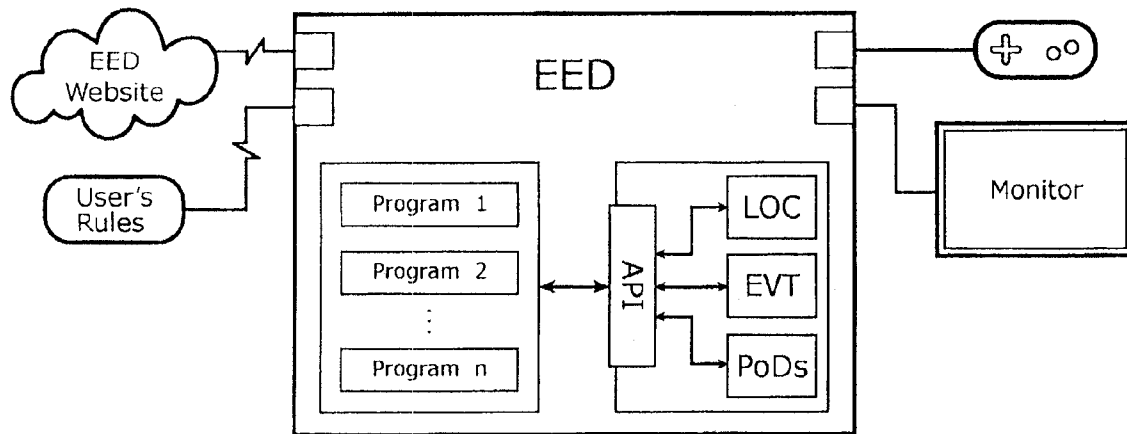




US 20110183754A1

(19) **United States**(12) **Patent Application Publication**
Alghamdi(10) **Pub. No.: US 2011/0183754 A1**(43) **Pub. Date: Jul. 28, 2011**(54) **GAME SYSTEM BASED ON REAL TIME AND
LOCATION OF USER****Publication Classification**(76) Inventor: **Mansour Ali Saleh Alghamdi,**
Jeddah (SA)(51) **Int. Cl.**
A63F 9/24 (2006.01)(21) Appl. No.: **13/007,786**(52) **U.S. Cl. 463/31**(22) Filed: **Jan. 17, 2011**(57) **ABSTRACT****Related U.S. Application Data**(60) Provisional application No. 61/297,908, filed on Jan.
25, 2010.

A gaming system is described in which a game mode, format, or other aspect(s) vary depending upon the current time and location of the user. The gaming system synchronizes the time and location of a user to the time and location of a character or environment generated by the system.



NIANTIC-1044

IPR2025-01273, IPR2025-01274

IPR2025-01275, IPR2025-01276

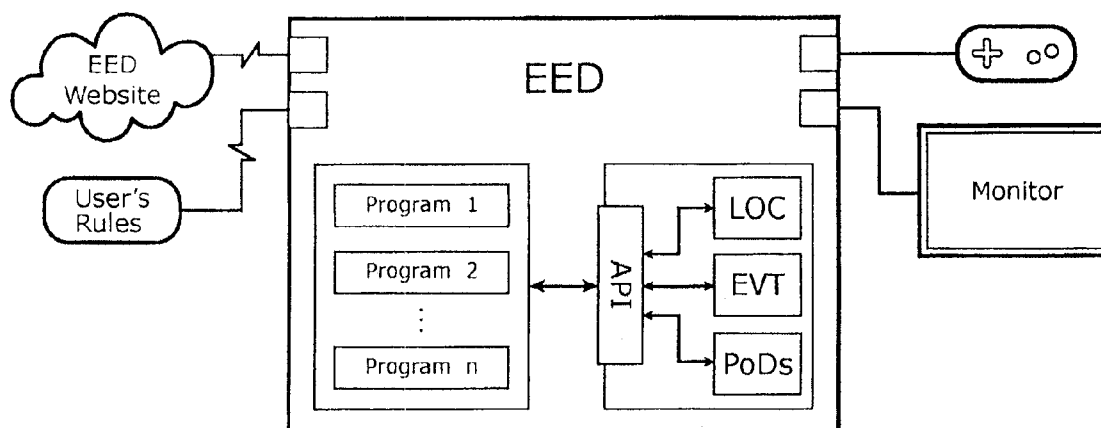


FIGURE 1

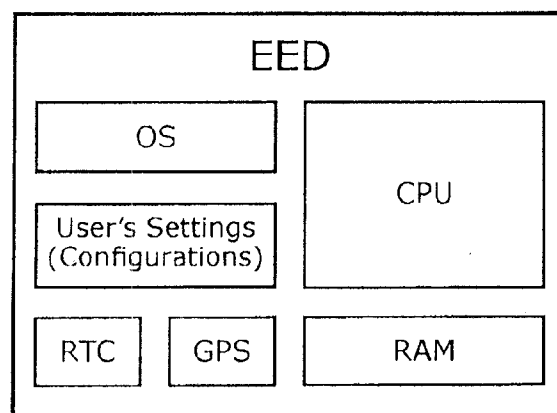


FIGURE 2

GAME SYSTEM BASED ON REAL TIME AND LOCATION OF USER

CROSS REFERENCES

[0001] The present application claims priority upon U.S. provisional application Ser. No. 61/297,908 filed on Jan. 25, 2010.

FIELD OF THE INVENTION

[0002] The present invention relates to a video game method and technology in which one or more changes in game format occur based upon when and where the game is played.

BACKGROUND OF THE INVENTION

[0003] It is known to use information as to a user's location, and incorporate that information into a video game or virtual representation of an environment presented for the user. For example, at least one gaming company is known to provide a global positioning system (GPS) attachment for many of its video games. Perhaps a more relevant example is the widespread use of vehicular GPS units that obtain and provide location information to a user. Those devices use GPS information to present and modify virtual images presented on the device screen.

[0004] The art is significantly less crowded with regard to the use of time, or more specifically, real time information, and basing video game play or format upon that time information. U.S. Pat. No. 5,267,734 describes a video game in which the play of the game is controlled, at least in part, by the current date and/or time. A calendar function interacts with the play of the game.

[0005] Other relevant prior art describes using real life information in a video game, such as U.S. Pat. Nos. 7,211,000; 6,773,350; 6,758,754; 6,726,567; and 6,080,063.

[0006] Although satisfactory in many respects, the art does not provide any type of gaming system in which the events, time and location used in the video game is "tied" or synchronized to that of the user. This feature would provide an entirely novel and unique aspect for nearly any type of video game.

SUMMARY OF THE INVENTION

[0007] The difficulties and drawbacks associated with previously known systems are overcome in the present invention for a gaming system in which a game mode, format, or other aspect(s) vary depending upon the current time and location of the user. Specifically, the present invention synchronizes or ties the time and location of a user to the time and location of the user's character or environment in a game or virtual representation. The present invention also provides game play which involves adapting a video game story or sequence of events representing game "play", based upon the user's real time, location, public and private events and other current information parameters.

[0008] In one aspect, the present invention provides a gaming system that synchronizes the time and location of a user to the time and location of a character or environment generated by the system. The system comprises time provisions for providing the current time to the system. The system also comprises location provisions for performing at least one of (i) determining a location of the user and providing the location to the system, and (ii) storing information associated with

the location of the user for subsequent use by the system. And, the system comprises event provisions for identifying and reporting events to the system.

[0009] In another aspect, the present invention provides a gaming system that synchronizes the time and location of a user to the time and location of a character or environment generated by the system. The system comprises time provisions for providing the current time to the system. The system also comprises location provisions for performing at least one of (i) determining a location of the user and providing the location to the system, and (ii) storing information associated with the location of the user for subsequent use by the system. And, the system comprises period of days provisions for simulating at least one characteristic of the user's environment, wherein the characteristic is selected from the group consisting of (i) an observable physical aspect of the current time, (ii) a religious aspect of the current time, (iii) a cultural aspect of the current time, (iv) a weather-based aspect of the current time, and (v) combinations thereof.

[0010] In still another aspect, the present invention provides an interactive play system apparatus comprising a computing means for executing program instructions relating to the play of a game. The apparatus also comprises a display means illustrating graphic images relating to the play of the game during the play of the game. The apparatus additionally comprises player input control means. The game includes (i) location provisions for performing at least one of determining a location of the user and storing information associated with the location of the user, and (ii) event provisions for identifying and reporting events.

[0011] As will be realized, the invention is capable of other and different embodiments and its several details are capable of modifications in various respects, all without departing from the invention. Accordingly, the drawings and description are to be regarded as illustrative and not restrictive.

BRIEF DESCRIPTION OF THE DRAWINGS

[0012] FIG. 1 is a schematic illustration of a preferred embodiment system in accordance with the present invention.

[0013] FIG. 2 is a schematic illustration of components of the preferred embodiment system of the invention.

DETAILED DESCRIPTION OF THE EMBODIMENTS

[0014] The present invention provides a new approach to digital entertainment, including interactive play systems also known as video game systems, allowing the systems to change their modes based on when and what happens where they are being played. This strategy is implemented through a new electronic entertainment device (EED) capable of playing games, video and sound on televisions, monitors, or on its own screen. The EED is similar to currently known set-top boxes or video game consoles with regards to processing game programs, playing video and audio, loading contents from storage media, and being controlled by a wired/wireless controller. The preferred EED in accordance with the invention additionally includes provisions for allowing programs it runs to receive, through an application programming interface (API), certain inputs, which provide information to the programs as to when, where and what events the programs are run and thus, the programs are executed accordingly. This provides users with a unique experience when they play games or watch video depending on the real time, date, events

and location information provided to the EED. These features provide new opportunities for content creators and developers to provide their customers with innovative and localized digital entertainment. In summary, the EED provides its users with simulated real life experience through video games and other contents played or executed on the EED.

[0015] The programs, run on the preferred embodiment EED, include a variety of rules governing their behavior for different times and locations. In addition to these rules, EED users, either adults or parents of minors, can impose their own rules as to how contents are executed or appear in specific events in the game or other content.

[0016] Referring to FIGS. 1 and 2, the EED utilizes a collection of information components to provide the new format as described herein. These components or provisions constitute the inputs to the EED. The first component of the new approach is the user's location (LOC). The LOC component includes information such as but not limited to, the user's country, city, longitude/altitude, and time zone possibly adjusted by DST (daylight saving time). The user can preferably select the country, city and DST in the EED's configuration screen. The EED keeps a record of longitudes, altitudes and time zones for every city in its database, so the user does not need to manually enter them. Some users may want increased detail or more precise longitude/altitude for their locations, so the option to manually enter the coordinates is preferably also provided. A portable version of the EED may also include a built-in GPS receiver for automatic location tracking while users are on the move.

[0017] Preferably, the gaming system which can be run or executed by the EED includes location provisions for performing one or both of (i) determining the location of the user, and/or (ii) storing information associated with the location of the user. The location of the user can be established or determined in several ways. A preferred technique is by use of information provided by a GPS receiver. That information can for example be in the form of latitude and longitude coordinates. The location provisions may also be configured to determine the location of the user from information provided to the system by the user. For example, the user can provide information to the gaming system by entering his or her location in the form of latitude and longitude coordinates; city, state, and/or country; or by reference to other geographical information. Most preferably, the location provisions perform both the operations of determining the location of the user and storing information associated with the location of the user.

[0018] The second information component of the new approach relates to any events that may be associated with either or both of the user's current time or location. This information is collectively referred to herein as events (EVT). The EED uses the user's location (LOC), real time and current date to automatically report, to the running program(s) through API, any special event associated with the location at which its user resides or is located, such as weekend, festival, national, religious or historical events. Public events are stored internally inside the EED for all supported places, i.e. countries and cities or downloaded from the internet. Users can also define their own private events. As most events occur in native calendars, such as Lunar, Hijri, Chinese and Saka, the EED can convert Gregorian dates into a number of supported calendars.

[0019] The user sets the local date, preferably according to the Gregorian calendar, only once in the EED configuration

screen. An internal battery powered real time chip (RTC) then keeps track of the date and time even when the EED is switched off. Reporting current date in other calendars is done automatically using conversion functions implemented in the EED.

[0020] Preferably, the gaming system which can be run or executed by the EED includes event provisions for identifying and reporting events. This can be performed in a variety of different ways. In one aspect, event provisions identify events associated with one or both of the user's location and the current time. The user's location is preferably provided or determined by the previously noted location provisions. In yet another aspect, the event provisions can identify events previously or in certain applications, concurrently with such events being defined or otherwise entered in the gaming system.

[0021] The third information component of the new approach relates to period of days (PoDs), which is used to simulate a user's environment, e.g. location and real time in the content being played. Examples of typical PoDs supported include, but are not limited to: daytime, nighttime, dawn, twilight, sunrise, morning, noon, afternoon, evening, sunset, night and midnight. A number of other PoDs which are culture-based, such as for certain middle-eastern countries include, but are not limited to: False Dawn, True Dawn, Dhua, Asr, Esha and Sahar, are also supported.

[0022] As the beginning and ending of each PoD differs throughout the year, the EED uses current date and LOC, especially longitude, altitude and time zone, to calculate the beginning and ending of each period which greatly depends upon the sun's position at the user's location. In addition, the EED includes provisions for connecting to the Internet and having LOC-specific information available. Therefore, the EED can download even more localized PoDs from a supportive website, such as school times, common work hours, etc. In addition, the EED can download weather forecast information and merge such with PoDs, for example, a rainy morning, a cloudy afternoon, a snowy night, etc.

[0023] The new EED offers many new services, functions, and aspects, through its associated API, to content developers. For example, a designer of a new game based on a virtual character's daily life story can divide the game into a series of activities and define at which EVTs and PoDs each activity is played, e.g. sunrise, morning and afternoon activities; and/or specify how a virtual girl looks, what she wears, where certain activities take place, and how the surrounding environment appears based on the user's LOC, EVT and PoDs.

[0024] When a player runs the game in the morning before going to school for example, the player will be able to interact with morning activities only, such as cooking breakfast, doing exercises, dressing for school, etc. When the player runs the same game in the afternoon, the player will be presented with afternoon activities, such as cooking lunch, washing dishes and feeding pets. When running the game during a sunny morning on weekends, the player will be presented with a new set of game activities. The new set of activities may be based upon the weather conditions being sunny and/or the day being a weekend day as compared to a week day for example.

[0025] Another designer may utilize the capabilities of the EED to mimic a user's real environment in the game's virtual environment. For example, a user playing a fighting game during a foggy afternoon will find himself playing the game in exactly the same environment. The designer can go one step farther and utilize a user's LOC to download satellite or street

pictures of the user's place and use them as battle fields or backgrounds for the game. This may also include information pertaining to locations, such as street names, and people's names appearing in the game.

[0026] Preferably, the gaming systems utilize location provisions to obtain information concerning one or more geological aspects of the location of the user. Thus, for example, the location provisions use information associated with the location of the user, to access and/or obtain information pertaining to geological features of that location. Non-limiting examples of such geological features include mountains, rivers, lakes, canyons, plains, hills, peninsulas, oceans, beaches, and deserts. The geological features may also include man-made features such as cities, farmland, buildings, structures such as bridges and dams, and the like. Information concerning geological features can be obtained from databases, maps, stored or archived information, or from real time information obtained via the internet. In a particularly preferred aspect, the gaming system uses combinations of various informational items such as one or more geological features and information from period of days provisions such as weather characteristics. As will be appreciated, the system can then simulate in game play, i.e. display on a gaming monitor, geological and weather aspects for the particular user at that time and user location.

[0027] In addition to rules set by designers and developers of content as previously noted, users can impose their own rules based upon LOC, EVT and PoDs. User's rules can be locally set on the EED itself. They also can be set via the EED supportive website. A user's rules administered either locally or online, may include remote parental controls. Each EED has its own unique identifier (ID) which is used to regularly download rules specifically set for the particular EED. For example, a parent may prevent her son from playing video games in afternoons except on weekends. She can also require at least one puzzle game every evening during the weekends in order to improve the son's logical thinking skills. She can also change game parameters such as a model's clothing or cooking recipients for her daughter's game. Each rule will automatically benefit from EED localization services, including language and timing.

[0028] Parental control can be extended to displaying reminders and alerts on screen. A reminder may appear as a pop-up window or may freeze the game until some user's action or another EVT or PoDs takes place. As an example of such reminders, a middle-eastern parent can configure the EED to display text on screen at the beginning of every PoDs to remind their child to perform religious duties, such as prayers.

[0029] More specifically, the gaming system further comprises user rule provisions for determining aspects of the user's character and/or the environment generated by the system. For example, the user can specify particular features and/or details as to the user's character, other characters, or the environment. In one aspect of this, the user rule provisions may include parental controls that prevent or at least minimize otherwise possible action by the user. For example, upon triggering a parental control, one or more alarms or on-screen reminders are generated. It is also contemplated that further operation of the gaming system may be temporarily halted or discontinued.

[0030] The new EED finds particular use and application in the fields of education and entertainment. It widely opens the

door for unthinkable possibilities for linking between players' real life and real time and what they see, hear and control on the screen.

[0031] The EED's supportive webpage can selectively feed games with their in-game stories, which are based on the latest local news or events. This will address the well known problem of games that appear old even after a few months after their release.

[0032] The present invention can also be understood and appreciated by considering a typical problem that occurs in certain games or gaming systems. For example, the sun rises on a particular day at 10:10 am in Oslo and sets at 4:40 pm. While in Jeddah, it rises at 7 am and sets at 6 pm (all local times). According to previous gaming systems, a player playing a game at 5 pm (local time) in Oslo will experience the same activities and environment in the game as a player in Jeddah playing at 5 pm (local time). This should not happen because 5 pm is nighttime at Oslo and is daytime at Jeddah. This problem is entirely avoided by use of the present invention. Moreover, the respective sunset and sunrise times of two cities may differ, and these differences will change over the course of a year such as between summer and winter. The EED can be configured to adjust the environment of its games or game play to accurately reflect such changes.

[0033] Another problematic situation is as follows. Most shops close their doors in Brussels at 6 pm, while most shops stay open till 10 pm in Dubai. The present invention makes it possible for developing a real life simulation game with game play for shopping and deploys it worldwide without raising issues or concerns regarding local time inconsistency.

[0034] Yet another example of the unique game play of the present invention is as follows. A clothing game for girls will adopt local styles and customs and will offer its players with suitable clothes at different times of the day or year, e.g. winter and summer.

[0035] Furthermore, yet another example involves the differences in the relationship in a user's time and location. Weekend days differ from one country to another. According to the present invention, a real time educational game will be able to automatically realize this and present its players with relevant content. For example, "weekend" are typically recognized in Kuwait as Fridays and Saturdays, in Saudi Arabia as Thursdays and Fridays, and in the United States as Saturdays and Sundays. The present invention EED can be configured to include such distinctions in its games or game play and thereby automatically adjust its contents and/or environment which is simulated in game play based upon the location of the user.

[0036] In addition to the synchronization of time and location, the present invention associates games to cultures or local events if desired. For example, a girl playing a cooking game during the morning in Paris may experience, in game play, preparing a French omelet for breakfast. In contrast, a girl playing the same game during the morning in Cairo will find herself cooking fava beans for breakfast. The same geographic associative aspects can be implemented for clothes, festivals, religions, etc. So, it is not only the environment that may be affected by the user's real time and location, but also the game play itself, including "story" or other sequence of events.

[0037] A typical interactive play or video game system which embodies the present invention includes a console which has a computing means, such as a microprocessor, a keyboard or input portion comprising a plurality of keys or

switches which are preferably capable of inputting the current time and date. The system preferably includes one or more player game controllers which may be of varying styles depending upon the particular game that is being played, e.g., a joystick type of controller. The system also may have a separate power supply which may be plugged into a standard electrical outlet. The system is connected to a standard television receiver or to a video monitor so that the play of the game can be viewed by the player.

[0038] In accordance with another aspect of the preferred embodiment of the present invention, the game apparatus has a source of power, preferably a battery which powers a date/calendar timer circuit, as well as memory circuitry, including random access memory circuitry (RAM), read only memory circuitry (ROM, and other memory provisions). As is typical, the program instructions for the game itself and for interacting the time and calendar functions with the play of the game is resident in the ROM circuitry, and the RAM circuitry retains the necessary data that is generated during the play of the game by the player.

[0039] An alternative embodiment can utilize a memory storage device and can include a disc storage device, or other device that is capable of storing data and program instructions. If a game is played on a console or personal computer which has an internal clock, the time and date at the conclusion of a playing session can be stored, regardless of the game mode or format. When the game is re-started, the program instructions can poll the appropriate location of the stored time and date information, compare it with the time and date information from the internal clock, update the status of the game, and the game can then be continued.

[0040] The gaming system or program is in one embodiment run on a gaming platform. The platform can in different embodiments be a personal computer (PC), a video-gaming system console such as those available from Sony, Inc., Nintendo, Inc., and Sega, Inc., as well as a stand-alone video game as found in arcades. Other embodiments include a set-top box for a television set. The invention is not so limited. The gaming system utilizes GPS data received, and in one embodiment, uses one or more informational data from the user or other sources. The gaming system is in one embodiment a computer program that runs on the platform, where the computer program includes a series of processor-executable instructions for execution by a processor of the platform.

[0041] Additional details and background information concerning video games, gaming systems, and programs or algorithms for such games are provided in one or more of the following patents: U.S. Pat. Nos. 7,850,527; 6,604,008; 6,695,694; 6,200,138; and 6,729,954.

[0042] Many other benefits will no doubt become apparent from future application and development of this technology.

[0043] All patents, published applications, and articles noted herein are hereby incorporated by reference in their entirety.

[0044] It will be understood that any one or more feature or component of one embodiment described herein can be combined with one or more other features or components of another embodiment. Thus, the present invention includes any and all combinations of components or features of the embodiments described herein.

[0045] As described hereinabove, the present invention solves many problems associated with previous type systems, processes and devices. However, it will be appreciated that various changes in the details, materials and arrangements of

parts, details, and aspects which have been herein described and illustrated in order to explain the nature of the invention, may be made by those skilled in the art without departing from the principle and scope of the invention, as described herein.

What is claimed is:

1. A gaming system that synchronizes the time and location of a user to the time and location of a character or environment generated by the system, the system comprising:

time provisions for providing the current time to the system;

location provisions for performing at least one of (i) determining a location of the user and providing the location to the system, and (ii) storing information associated with the location of the user for subsequent use by the system; and

event provisions for identifying and reporting events to the system.

2. The gaming system of claim **1** wherein the location provisions determine the location of the user by use of information provided by a global positioning system (GPS) receiver.

3. The gaming system of claim **1** wherein the location provisions determine the location of the user from information provided to the system by the user.

4. The gaming system of claim **1** wherein the location provisions perform both (i) determining the location of the user, and (ii) storing information associated with the location of the user.

5. The gaming system of claim **1** wherein the event provisions identify events associated with at least one of (i) the user's location and (ii) the current time.

6. The gaming system of claim **1** wherein the event provisions identify events by use of information provided by the location provisions.

7. The gaming system of claim **1** wherein the event provisions identify events previously defined by the user.

8. The gaming system of claim **1** further comprising:

period of days provisions for simulating at least one characteristic of the user's environment.

9. The gaming system of claim **8** wherein the characteristic is selected from the group consisting of (i) an observable physical aspect of the current time, (ii) a religious aspect of the current time, (iii) a cultural aspect of the current time, (iv) a weather-based aspect of the current time, and (v) combinations thereof.

10. The gaming system of claim **9** wherein the characteristic is an observable physical aspect of the current time selected from the group consisting of daytime, nighttime, dawn, twilight, sunrise, morning, noon, afternoon, evening, sunset, night, and midnight.

11. The gaming system of claim **9** wherein the characteristic is a religious aspect of the current time.

12. The gaming system of claim **9** wherein the characteristic is a cultural aspect of the current time selected from the group consisting of typical school time periods, typical work time periods, and combinations thereof.

13. The gaming system of claim **9** wherein the characteristic is a weather-based aspect of the current time.

14. The gaming system of claim **1** further comprising:

user rule provisions for determining aspects of at least one of the user's character and the environment generated by the system.

15. The gaming system of claim **14** wherein the user rule provisions include parental controls that prevent at least one otherwise possible action by the user.

16. The gaming system of claim **15** wherein the user rule provisions include generating at least one on-screen reminder and halting further operation of the system.

17. The gaming system of claim **1** wherein the location provisions use information associated with the location of the user and obtain information concerning geological aspects of the location of the user for use by the system.

18. A gaming system that synchronizes the time and location of a user to the time and location of a character or environment generated by the system, the system comprising:
time provisions for providing the current time to the system;

location provisions for performing at least one of (i) determining a location of the user and providing the location to the system, and (ii) storing information associated with the location of the user for subsequent use by the system; and

period of days provisions for simulating at least one characteristic of the user's environment, wherein the characteristic is selected from the group consisting of (i) an observable physical aspect of the current time, (ii) a religious aspect of the current time, (iii) a cultural aspect of the current time, (iv) a weather-based aspect of the current time, and (v) combinations thereof.

19. The gaming system of claim **18** further comprising:
user rule provisions for determining aspects of at least one of the user's character and the environment generated by the system.

20. The gaming system of claim **18** wherein the location provisions use information associated with the location of the user and obtain information concerning geological aspects of the location of the user for use by the system, and the period of days provisions simulate a weather characteristic based upon the current time and the location of the user for use by the system.

21. An interactive play system apparatus comprising:
a computing means for executing program instructions relating to the play of a game;
a display means illustrating graphic images relating to the play of the game during the play of the game;
player input control means;

wherein the interactive play system includes (i) location provisions for performing at least one of determining a location of the user and storing information associated with the location of the user, and (ii) event provisions for identifying and reporting events.

22. The interactive play system apparatus of claim **21** wherein the interactive play system further includes (iii) period of days provisions for simulating at least one characteristic of the user's environment.

* * * * *