Title: A SYSTEM FOR MARKETING TO CUSTOMERS BELONGING TO A COMMON INTEREST GROUP

Abstract: An improvement to the operation and management of an online community Web site on the global computer network to enhance its value as a marketing tool is disclosed. In order to increase traffic to a merchant’s Web site and also to increase interest in the merchant’s business in general, the merchant provides a pass-key device (55, 155, 255, 355, 455, 555) that can interactively link to the merchant’s Web site. The pass-key device preferably has attributes closely related to the theme of the merchant’s business so that its attributes and the interactive nature provides an incentive for the members of the merchant’s online virtual community to obtain a pass-key device and surf the merchant’s Web site. The pass-key device’s interactive functions may include, such things as, automatically providing a unique password to gain access to the Web site’s limited-access features and downloading music or stories related to the theme of the merchant’s business or the Web site.
A SYSTEM FOR MARKETING TO CUSTOMERS BEARING TO A COMMON INTEREST GROUP

BACKGROUND OF THE INVENTION

With the proliferation of the use of Internet Web sites as a medium for marketing goods and services, many businesses are using their Internet Web sites as a gathering place for their customers. These special interest Web sites (a.k.a. community Web sites) function as online virtual communities for people with common interests. These community Web sites provide their community members with information and services related to the particular business of the Web site hosting merchant.

For example, a fan of the NASCAR® (National Association for Stock Car Auto Racing) may log on to the NASCAR®'s Web site www.nascar.com to access NASCAR® related news, services, and merchandise. From the main Web site, a fan can access the NASCAR online store where merchandise, such as replicas of NASCAR® race cars, NASCAR® related apparel, logo baseball caps, collectibles, toys, books, etc. is offered for sale. From the NASCAR® Web site, a fan can also obtain the latest information on upcoming races, subscribe to an online newsletter, and download various audio clips.

Many other types of organizations and entities also maintain Web sites with contents of a similar nature for the benefit of their fans or customers. On the Web site maintained by the singing group Metallica™, their fans can send e-mails to the members of the singing group, listen to audio clips of sample songs from the group’s various music CDs, purchase CDs, or shop from a selection of Metallica™ related merchandise.

Such community Web sites function as a valuable marketing tool for the Web site hosting merchant’s business because it helps retain customer loyalty by providing an alternative and interactive means of obtaining information on the merchant’s business beyond the traditional advertisement methods. Also by regularly improving and updating the contents of the Web site, the merchant is able to maintain and heighten the customers’ interests. In other words, through the use of its Web site, the hosting merchant can create a virtual community on the Internet for its customers who share a common interest in the products and or services provided by the hosting merchant.

Sometimes, a Web site hosting merchant will provide premium content materials available only to select customers or fans through a limited-access Web site or a Web site
with a limited-access portion. The premium content may be a selection of certain products and services that are only available to “members” only. A customer or a fan can become a “member” by establishing a membership with a particular Web site, usually through a registration process during which he or she will be asked to select a unique user ID and a unique password. The Web site’s host server system will typically store the user ID and password information in a database that functions as a look-up table. When the customer subsequently logs onto the Web site and wants to access the limited-access portion of the Web site, he or she will be required to provide the user ID and password. Typically, this is done by presenting the customer with a log on screen with input fields for entering a user ID and a password. The Web site’s host server system verifies that the customer is a registered member by comparing the user ID and password provided by the user with the user ID and password saved in the database. Once logged on, the customer may derive the benefits of the premium content products or services available on the limited-access Web site.

An example of such limited-access Web site is “The Members Only” section of the www.metallica.com Web site. Some of the premium content available on this members only Web site are: the “Club Forum” service where the members can talk to other members in chat rooms and see messages posted by the members of the Metallica™ band on message boards; the “Photo Gallery” service where an archive of photos are available for downloading; the “Member Store” where the members can purchase generally available Metallica™ merchandise at a discounted price and also purchase exclusive items only available to the registered members; and the “Tickets” service where the members can purchase special “Metallica Club” tickets to upcoming concerts.

With the growing number of people logging on to the Internet, there is a need for new and improved marketing methods for the Web site hosting merchants to reach this growing population of consumers.

**SUMMARY OF THE INVENTION**

The present invention relates to an improvement to a system of marketing to customers belonging to a common interest group where the group’s interest either stems from or is closely related to the merchant’s business. The common interest group would typically be a group of fans, loyal customers, or followers of the merchant’s business and/or activities.
Generally, a merchant’s marketing activities may include activities with a theme related to the interests of the common interest group. As used herein, the term “merchant” may mean any business, governmental, group, association, or entity involved in activities, for profit or non-profit, that provide products and/or services to members of the public or private sector.

According to one embodiment of the present invention, the merchant’s marketing plan may provide limited-access products and services in addition to its main products and services. The limited-access products and services preferably have themes related to the interests of the common interest group. In conjunction with the limited-access products and services, the merchant may sell or provide as give-aways or promotional merchandise a pass-key device which provides the owner of the pass-key device access to the limited-access products and services. The pass-key device is preferably configured to have physical attributes closely related to the theme of the interests of the common interest group and the merchant’s business. Its physical attributes and the ability to provide access to the limited-access products and services are the desirable features of the pass-key device and provides the basis for the customers’ incentive to purchase or obtain the pass-key device. Thus, through the use of the pass-key device, a merchant may retain and/or enhance its customers’ interest and loyalty to its business and may even attract new customers.

One area of the consumer market place where the present invention may be beneficially implemented is in electronic commerce, otherwise known as e-commerce. In particular, an embodiment of the present invention may be applied to the operation and management of a community Web site to enhance its value as a marketing tool. In this embodiment, the benefits are enhanced by the affinity of the computer-savvy segment of the population to surf the Internet and participate in online virtual communities and the interactive nature of the Internet experience. By combining these factors into a marketing plan, a merchant may promote a community Web site and pass-key device closely related to the merchant’s business where the merchandise can provide the consumers with interactive links to the merchant’s community Web site. The pass-key device’s interactive function may include, such things as, automatically providing a unique password to gain access to the Web site’s limited-access features and downloading music or stories related to the merchant’s business, the Web site, the pass-key device, etc.

The merchandise preferably has attributes relating to the theme of the merchant’s
business and its online community Web site so that the merchandise appeals to its target customers and provides further incentive to obtain the merchandise. Thus, a merchant may sell the merchandise to the customers or distribute them as promotional items in order to increase Internet surfing traffic to its Web site and to increase and/or enhance general interest in its business.

The interactive nature of the merchandise enhances the consumer’s online experience on the merchant’s community Web site. The merchandise’s theme-oriented attributes related to the merchant’s business further provide the incentive for the consumer to obtain the merchandise and interactively surf the merchant’s online community Web site. Thus, the merchandise helps to increase the traffic to the merchant’s Web site and should lead to increases in the general consumer population’s awareness and interest in the merchant’s business. Alternatively, the ability of the merchandise to provide access to limited-access events, Web site features, and other merchandise adds value and purchasing incentive to the customer, thus, allowing the merchant to charge a premium for the pass-key device.

According to one embodiment of the invention, a Web site hosting merchant creates a limited-access Web site which is typically accessible with a user ID and a password. In a preferred embodiment of the invention, the community Web site hosting merchant markets merchandise that is configured to provide the password necessary to access the limited-access Web site when connected to the user’s Internet accessing device such as a PC. The merchandise preferably is configured with a data storage device which is encoded with a password and functions as a pass-key to the limited-access Web site. In a preferred embodiment, the pass-key device is configured with community specific features. In other words, the pass-key device would be an item that has physical features closely associated with the Web site hosting merchant’s business and the theme of the merchant’s Web site so that the pass-key device’s value as a marketing tool is maximized.

In another embodiment, the community specific theme-oriented pass-key device may further comprise an e-mail notification device. Such a device may be communicatively connected to the user’s Internet accessing device and provides notification that an e-mail has been received in the customer’s e-mail account in addition to being a pass-key device which allows access to the limited-access Web site.

The invention will now be illustrated in some specific embodiments in accordance
with the invention. It will be appreciated by those skilled in that art that the same principle is also applicable in other applications and areas where a marketing system is desired for providing a merchant’s customers with a theme oriented merchandise that will function to provide access to the merchant’s certain limited-access products and services.

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BRIEF DESCRIPTION OF DRAWINGS

Figure 1 is a block diagram of the components of an embodiment of a pass-key device of the present invention where the pass-key device is configured with a data storage device encoded with a log-in password.

10 Figure 2 is a flow diagram illustrating the operation of the pass-key device configured with automatic password entry feature.

Figure 3 is a block diagram of the components of an embodiment of the invention where the pass-key device is an e-mail notification device;

Figure 3a is a flow diagram illustrating the operation of the pass-key device of Figure 3;

15 Figure 4 is a block diagram of the components of another embodiment of the pass-key device configured as an e-mail notification device;

Figure 4a is a flow diagram illustrating the operation of the pass-key device of Figure 4;

Figure 5 is a block diagram of the components of another embodiment of the pass-key device configured as an e-mail notification device;

Figure 5a is a flow diagram illustrating the operation of the pass-key device of Figure 5;

Figure 6 is a block diagram of the components of another embodiment of the pass-key device configured as an e-mail notification device;

Figure 6a is a flow diagram illustrating the operation of the pass-key device of Figure 6;

Figure 7 is a block diagram of the components of another embodiment of the pass-key device configured as an e-mail notification device;

Figure 7a is a flow diagram illustrating the operation of the pass-key device of Figure 7;
Figure 8 is a block diagram of a variation of the pass-key device of Figure 7;
Figure 9 illustrates an embodiment of the pass-key device in the form of a stuffed teddy bear;
Figure 10 illustrates an embodiment of the pass-key device in the form of a toy police car; and
Figure 11 illustrates another embodiment of the pass-key device wherein user input devices are provided.

DETAILED DESCRIPTION OF THE INVENTION

According to one aspect of the invention, a merchant sets up a Web site to serve the interests of an online community of its customers. The community Web site is preferably structured so that it has a limited-access Web page which is preferably one of a number of pages accessible from the Web site's main page (e.g., a home page). The home page is thus generally accessible to the online community, whereas the limited-access Web page is only accessible to select members of the online community, such as, for example, members or customers. This allows the Web site to serve both the general population of the common interest group and the membership population, rather than the whole Web site being a limited-access site. It can be appreciated that, alternatively, the whole Web site can be a limited-access site.

The merchant may then market the community Web site to its customers with a pass-key device that corresponds to the theme of the Web site. The Web site hosting merchant may market the pass-key device to the customers in a variety of ways. For example, they may be marketed as merchandise for sale or distributed as promotional items. The pass-key device may be configured to provide the password necessary to log onto the limited-access Web page and any customer who wishes to access the limited-access Web page would have to obtain a pass-key device.

The community Web site may be configured so that the link to the limited-access Web page from the Web site's home page is typically shown as a hyperlink or an icon. When a customer selects this link by clicking a mouse (or by using some other data input device), the customer is presented with a log-in screen. The log-in screen may have data entry fields for a user ID and a password. If the customer is a first time visitor to the limited-access Web page,
he or she would not have a user ID and may be instructed to go through an online registration process. The customer may be allowed to choose a unique user ID during the online registration process. Alternatively, the user ID may be assigned to the member by the Web site server computer during the registration process.

According to a preferred embodiment of the invention, the community specific pass-key device should preferably be a theme-oriented item that would clearly and readily convey its relationship to the community Web site maintained by the hosting merchant as well as the merchant's business. In other words, the theme of the item corresponds to and conveys the common interest shared by the members of the virtual community of that particular Web site.

Thus the combination of the physical features and the relationship to the community Web site, including its ability to provide access to the limited-access Web site, create a desire for and interest in the pass-key device. As an example, for the NASCAR®'s community Web site discussed above, a miniature replica of a NASCAR® racing car would be a desirable pass-key device. A variety of race cars each depicting a particular NASCAR® racing team's number and colors would be provided to satisfy the interests of the fans. Another example would be a Bugs Bunny™ character doll as a potential pass-key device for the cartoon related limited-access Web pages in the www.wb.com Web site's Looney Tunes™ community Web Page maintained by the Warner Brothers Corporation.

As can be seen in Fig. 1, in a preferred embodiment of the invention, pass-key device is provided with appropriate communications link hardware to be communicatively connected to the user's Internet accessing device (typically a PC or stripped down version of PCs that are primarily intended to be used for Internet accessing and e-mailing). The communications link may be via a cable or wireless connection devices (e.g., infrared transmitter/receiver). The pass-key device may be configured to connect to any one of the various communication ports (e.g., I/O ports) that may be available on the Internet accessing device. Examples of communication ports available on a typical Internet accessing device, would be a serial port, a USB port, a parallel port, etc.

The pass-key device may be provided with a unique password which allows the customer to access the limited-access Web site and become a member of that Web site's virtual community. The password may be provided with the pass-key device in a variety of ways. It could be simply provided in a printed form, behind a peel-off sticker, for example, in
which case the member will be required to enter the password at the log-in page for the
limited-access Web site. In a preferred embodiment, the password is incorporated into the
pass-key device electronically in a suitable memory device so that the pass-key device can
automatically provide the password without the member manually entering the password.

The unique password may be encoded within a data storage device 565 provided in
the pass-key device. The data storage device could be any one of different varieties of ROM
(Read Only Memory) chips such as a PROM (Programmable Read Only Memory), an
EPROM (Erasable Programmable Read Only Memory), CD-ROM, or any other type of data
storage device which is suitable for retaining the log-in password information.

Fig. 2 shows a flowchart showing how the automatic password entry feature of a
preferred embodiment of the pass-key device may operate. Typically, the pass-key device
would be provided with a control program which is installed on the Internet accessing
device. Once installed on the Internet accessing device, the control program may be enabled
at any time (either before the member gets to the limited-access Web page’s log-in screen or
after the member reaches the log-in screen). When enabled, the control program reads the
log-in password data from the pass-key device’s data storage device and passes it to the
Internet browser program (e.g., Netscape Communicator®, Microsoft Internet Explorer®)
running on the member’s Internet accessing device which will then transmit to the Web site
server preferably using TCP/IP protocol.

The limited-access Web page’s log-in screen may include a data entry field for the
password. In which case, when the control program passes the log-in password data to the
Internet browser program, the appropriate data field on the limited-access Web page’s log-in
screen will be filled in with the log-in password. The control program may achieve this by
taking the password data and converting it to keyboard scan codes, representing each character
of the password, that can be read by the Internet accessing device’s BIOS. The BIOS then
translates the scan code into ASCII codes. The Internet browser then retrieves the ASCII
codes and fills in the password entry field as if the user had typed the password using a
keyboard.

Alternatively, the Internet accessing device may be configured to automatically enable
the control program when the Internet accessing device is turned on (i.e., where the Internet
accessing device is a PC, the control program may be added to the automatic boot up
sequence). Once the Internet accessing device is on and the control program is enabled, the control program may automatically poll the communication ports available on the Internet accessing device to see whether a pass-key device is connected to one of the communication ports. In this embodiment, the pass-key device would be provided with a data processing unit which is preprogrammed to respond to the polling signal from the Internet accessing device with a response signal identifying itself as a pass-key device. The control program will then read the log-in password encoded in the data storage device and monitor the Internet browser to see whether the customer is at a particular limited-access Web page’s log-in screen. The control program may monitor the Uniform Resource Locator (URL) address of the site being browsed in order to accomplish this. Once the control software determines that the customer has reached the appropriate log-in screen, the log-in password may be sent to the Web site server preferably using TCP/IP protocol. This eliminates the need for the customer to manually enable the control software in order to enter the log-in password at the limited-access Web page’s log-in screen.

In the automatic password entry embodiment described above, the limited-access Web page’s log-in screen need not provide the traditional password data entry field. The Web page screen may display a message reminding the customer to check that the pass-key device is connected to the Internet accessing device, or the screen may have a visual indicator signaling to the member that the log-in password has been received by the Web site server. The visual indication may be accomplished in many different ways, such as a text message or an image shown on the screen.

Once the Web site server verifies the log-in password to be a correct one, the customer is allowed to go beyond the log-in screen and access the services and information available in the limited-access Web page. In other words, the customer has become a member of the select group within the online community with access to the particular limited access Web page.

In another embodiment of the present invention, the community Web site host server may be configured so that when the customer goes to the limited-access Web page’s log-in screen using an Internet browser program, the Web site server sends data packets containing application codes to the customer’s Internet accessing device. The application codes may comprise a set of program or programs that will run on the Internet accessing device and
automatically look for a pass-key device connected to the Internet accessing device. The application code may look for the pass-key device by polling the communication ports on the Internet accessing device as discussed above. If a pass-key device is found, the control program automatically reads the log-in password encoded in the data storage device of the pass-key device and send it to the Web site server preferably using TCP/IP protocol.

There are a number of ways such application codes may be sent to the customer’s Internet accessing device from the Web site’s server which would be familiar to anyone knowledgeable in the workings of an Internet accessing device such as a PC, communications protocol over the Internet (i.e., TCP/IP), and Internet application programming utilizing such protocols. One possible method of sending data packets containing application codes over the Internet is using Java™ applets.

The Web site host server would typically store the customer’s user ID and password information in the server’s database so that the customer can be recognized in subsequent visits to the limited-access Web site. This ensures that the person attempting to access the limited-access Web page is authorized to access the Web page. The registration process may be designed to give the customer an option to volunteer additional personal information which will be stored in the Web site server’s database along with the user ID and password. This information may be updated and augmented by the server with such information as the customer’s preferred goods or services offered on the limited-access Web page. Such personalized data may be used to customize and personalize the limited-access Web page to each customer in future visits to the Web page.

Furthermore, the data encoded on the pass-key device’s data storage device may contain additional information identifying the particular character or an entity (e.g., a cartoon figure, a racing car, a celebrity figure) depicted by the pass-key device. This identification information can be passed to the Web site server during the log-in process along with the password information. Alternatively, the identification information may be passed to the Web site host server after the customer has logged onto the limited-access Web page. The Web site host server may then be configured to utilize the identification information to customize the contents of the limited-access Web page to the particular pass-key device. For example, a community Web site that was created for the fans of a particular TV cartoon series may be set up with a special limited-access “fan club members only” Web page. The Web
site hosting merchant then may sell pass-key device dolls made in the shape of the various characters in the cartoon series.

The “fan club members only” Web page may be configured so that it is only accessible from the home page with the pass-key device. In addition to the log-in password, each of these dolls may be provided with a ROM chip that is also encoded with information identifying the particular cartoon character depicted by that particular doll. The Web site host computer may access this information and present a Web page that is customized to provide a set of information and services relating to the particular character depicted by the customer’s pass-key device. By having separate and different Web sites for each different character and different pass-key devices corresponding to each Web site, additional demand for goods such as the pass-key device, and services may be developed.

If the data storage device provided in the pass-key device has sufficiently large storage capacity, the pass-key device may also be configured to include additional interactive functions. For example, the pass-key device may be configured to allow the user to download stories, music, or other data files. The downloaded data may be stored in the pass-key device’s data storage device to be played back at a later time. The limited-access Web site may provide downloadable stories and/or music that are preferably related to the theme of the Web site or the character depicted by the pass-key device. Once the data is downloaded, the customer may use the pass-key device as a standalone music or story playback device. This embodiment would require the pass-key device to include a data processing unit (not shown in Fig. 1) to coordinate the storage and playback of the downloaded multi-media data.

The pass-key device may also be configured to automatically provide the limited-access Web site’s address information, the URL, to the customer’s Internet browser so that the function may be used as an alternative to the traditional methods of accessing the limited-access Web site, such as, typing in the URL address, use search engines available on Internet, or use the bookmarking feature of the Internet browsers. For example, the URL information may be encoded into the pass-key device’s data storage device along with the log-in password so that the control program running on the Internet accessing device may access the information and pass it to the Internet browser.

In another embodiment, the community specific theme-oriented pass-key device may further comprise an e-mail notification device. An e-mail notification device may be
communicatively connected to the Internet accessing device and provides notification that an e-mail has been received in the customer’s e-mail account. Fig. 3 illustrates this embodiment of the invention where the e-mail notification device is equipped with data storage device 65, such as a ROM chip or any other suitable types of data storage device, that is capable of retaining the log-in password information that can be passed on to the limited-access Web site’s server computer when the e-mail notification device is connected to the user’s Internet accessing device.

In this embodiment, the control software which may be provided with the pass-key device will read not only the log-in password data from the pass-key device’s data storage device and pass it to the Internet browser but it also monitors the user’s e-mail server for receipt of e-mails. The control software may be provided in any medium such as a diskette, a compact disc, etc. which can then be installed onto the Internet accessing device. It can be appreciated that the control software may be provided in the data storage device within the pass-key device and installed onto the Internet accessing device when the pass-key device is connected to a communication port provided in the Internet accessing device. The control software may also be downloadable over the Internet.

The control software may be configured to check the user’s e-mail server automatically at predetermined or user defined time intervals. The control software may detect the receipt of new e-mail by looking for the particular e-mail alerting message employed by the particular e-mail accessing software already being utilized by the user. The control software may also directly check the user’s electronic mailbox rather than relying on the e-mail accessing software’s own notification program to do the checking. In addition, the control software may be configured to override the e-mail accessing software’s e-mail alerting message.

Once the control software detects the receipt of new e-mails, it generates an appropriate control signal and transmits it to at least one communication port provided in the Internet accessing device which is linked to a communication port provided in the pass-key device. Where the Internet accessing device is a personal computer, the communication port may be one of a variety of Input/Output interfaces available on a typical personal computer systems, such as a serial port, parallel port, universal serial bus (USB) port, etc. The pass-key device may be provided with one or more communication ports, at least one of which
receives the control signal transmitted by the communication port in the Internet accessing device. The communication port of the pass-key device should be configured to receive and process, if necessary, the control signal received from the Internet accessing device. The control signal causes the pass-key device to respond in a manner which notifies the user of the arrival or existence of e-mails in the user's electronic mailbox.

The control signal from the Internet accessing device may be transmitted to the pass-key device either by wireless technology or by a connecting cable. In a wired embodiment, the communication ports of the pass-key device and the Internet accessing device are connected by some form of hard wire or cable (electrical conductor, optical fiber, or both) capable of carrying the control signal. In a wireless embodiment, at least one of the Internet accessing device's communication port may be provided with a wireless transmitter such as infrared or a radio transmitter and the communication port of the e-mail notification device may be provided with a corresponding receiver.

In accordance with the invention, the transmission of the control signal from the Internet accessing device to the pass-key device will result in a response or action by the pass-key device to notify the user of the existence of e-mails. The response or action of the pass-key device may be in a variety of forms such as turning a light on or off, producing an audio output, animated motion, or any combination of these responses. The response or action may also incorporate information such as the number of unopened e-mails in the user's electronic mail box.

The control signal transmitted from the Internet accessing device to the pass-key device may take many forms. In one embodiment, the control signal may be a data signal containing control command information which may then be processed by a data processing device provided within the pass-key device to execute the response or actions directed by the control command. For example, in addition to notifying of the receipt of new e-mails, the control software may retrieve the contents of the e-mails and transmit the data to the pass-key device, then the data processing device provided within the pass-key device may read the e-mail messages to the user using character recognition software and a voice synthesizer.

The control signal may also be an output signal or a trigger signal to directly activate one or more output devices provided in the pass-key device. For example, these output devices may be light sources or action mechanisms provided in the pass-key device which can
be activated without a data processing device in the pass-key device. The control signal may also be a sound signal which can enable directly one or more sound output devices, such as speakers, provided in the pass-key device thus eliminating the need for a data processing device in the pass-key device. The signal transmitted to the pass-key device may provide sufficient power to the output devices such that the pass-key device may not need a separate power supply. Alternatively, the e-mail notification device may require a power supply, such as a battery which can be housed in the device. The power supply may also comprise an AC adapter which can be housed in the device or alternatively be inserted into a household or an office wall outlet and connected to an input socket in the device.

The pass-key device may also be equipped with one or more light sources such as small light bulbs or LEDs (light emitting diodes). In response to the control signal from the Internet accessing device, the light sources may be turned on or off, or made to blink to notify the user that an e-mail has been received. Where the control signal is already in an output signal form, the light sources may be enabled directly without the need for a data processing device provided in the pass-key device. Where the control signal from the Internet accessing device is in a control command data form, the data processing device provided in the pass-key device may convert the data into appropriate output signals to drive the light sources appropriately, such as turning them on or off in a pattern or lighting a number of lights to correspond to the number of e-mails.

In another embodiment, the pass-key device may be provided with one or more sound output devices. The sound output devices may comprise at least one speaker. The sound output devices may be enabled directly to produce sound output without the need for a data processing device or amplifier provided in the pass-key device. In another embodiment, the sound output devices may include one or more amplifiers. In still another embodiment, the control signal may act as an electrical trigger or switch where the pass-key device plays a prerecorded message in response to the control signal. The prerecorded message may be a simple phrase notifying the user that an e-mail has been received, or a well-known phrase associated with the particular theme or character depicted by the pass-key device. The prerecorded message also may be in the well-recognized voice associated with the particular character depicted by the pass-key device, e.g., Mickey Mouse®, Bugs Bunny®, etc.

Where the control signal from the Internet accessing device is in a control command
data form, the data processing device provided in the pass-key device may generate an audio output signal to enable one or more sound output devices. The audio output signal generated by the data processing device may be synthesized or just played back from a selection of audio data prerecorded on a data storage device provided in the pass-key device. In this embodiment, the data storage device may be read-only type storage devices such as ROM chips, or read-only compact disc players.

In another embodiment, the data storage device may be a re-writeable storage medium capable of storing music, stories, or video data such as cassette tape cartridges, magnetic diskettes, digital tape cartridges, re-writeable compact discs, memory chips (e.g., RAM), memory cards, Memory Sticks™, or MP3 format players. The user may download audio data such as music or stories from the Internet or online service sites into the pass-key device so that the data can be played back at a later time without the need for the pass-key device to be connected to or in close proximity to the Internet accessing device.

In another embodiment of the invention, the pass-key device may be provided with actuators for moving one or more parts of the pass-key device and the movement notifies the user that new e-mail has been received. The actuator comprises mechanisms which will move parts of the pass-key device in response to the control signal.

Where the control signal from the Internet accessing device is in control command data form, the data processing device provided in the pass-key device processes the data carried by the control signal and generates an appropriate output signal to enable the appropriate actuators. The data processing device may also direct power from a power source to actuate the appropriate actuators. Where the control signal from the Internet accessing device is already in an output signal form, the mechanisms may be directly actuated when a signal is received without the need for a data processing device provided in the pass-key device.

The entire pass-key device or only parts of the pass-key device may be moved. Examples of such movement are: a punch thrown by a toy figure depicting a famous boxer; a swing of a baseball bat by a toy figure depicting a famous baseball player, a swing of a golf club by a toy figure depicting a famous golfer, etc.

Of course, the pass-key device may be equipped to perform combinations of these responses, such as providing a visible signal such as a light along with an audio output, or an
audio output in conjunction with movement, or any combination of the three.

The pass-key device may also be provided with a display device, such as, for example, an LCD (liquid crystal display), so that a message can be displayed. The message may simply inform the user of the existence of unopened e-mails in the user's electronic mailbox or the number of e-mails. The display device may also display the text or contents of the e-mails. The pass-key device may also be provided with a data storage device so that the contents of the e-mails can be stored and subsequently displayed allowing the pass-key device to function as an e-mail reader and the user may read the e-mails independent of the Internet accessing device.

In addition, the control software provided with the pass-key device may be adapted to cause the Internet accessing device to automatically access the user’s electronic mail box and determine whether new e-mail has been received. The time interval for automatically accessing the user’s electronic mailbox may be predetermined or defined by the user. In the automatic mode, if new e-mail has been received, the dial-up connection to the e-mail server may be maintained for a longer period of time, in order to allow the person receiving the e-mail time to view the e-mail and respond. The length of this time period may also be definable by the user.

The pass-key device may also be provided with a user input device such as buttons, keys, touch pads, dials, turning knobs, or the like, which may allow the user to select or change the list of output signals that can be generated by the pass-key device's data processing device. Thus, where the pass-key device is provided with a data storage device containing prerecorded audio data to be played back by the pass-key device’s audio output device, the user input device may be configured to allow the user to choose from a selection or variety of prerecorded audio data to be played back by the audio output device.

A user input device may also be provided in the Internet accessing device to allow the user to input data to the control software and manipulate parameters for the control signal or the command data embedded in the control signal. Where the control software is further capable of accessing remote computer systems accessible through the Internet or intra-network link to gather additional input data and/or input files for use with the pass-key device, the user input device may allow the user to download new files and program information from a remote source maintained and periodically updated by the manufacturer of
the pass-key device. The control software can then utilize these new files by themselves, or
in conjunction with other existing files to further enhance the pass-key device's capabilities.

The community Web site may be configured so that the members of the limited-access
Web page can send e-mails to other members by sending an e-mail to a designated e-mail
account. The designated e-mail account will then forward the e-mail to all currently
registered members of the limited-access Web page. The designated e-mail account provides
the Web site hosting merchant with an ability to send mass e-mails to its customers. For
example, the Web site hosting merchant may use the designated e-mail account to send a
special promotional messages to its member customers. Furthermore, the e-mail notifying
pass-key device may be configured to recognize the incoming e-mail from the designated e-
mail account and produce a special notification message. The control software for the e-mail
notifying pass-key device may be configured to recognize the particular designated e-mail
account's e-mail address to enable this feature. This feature would be helpful for those
member customers who are expecting certain messages from other members or the Web site
hosting merchant.

Referring to Figure 3, Internet accessing device 10 may be provided with a data input
device 8, such as a floppy diskette drive, a CD-ROM drive, a key board, or the like, and a
first data processing device 30. Data input device 8 enables control software 5, which may be
provided with e-mail notification pass-key device 55 in any medium such as a floppy diskette,
a compact disc, etc., to be installed onto data processing device 30. Control software 5 may
also be downloadable over the Internet.

Data processing device 30 on Internet accessing device 10 also typically will have e-
mail accessing software 3 installed on it. Examples of e-mail accessing software providing
users with e-mailing capabilities typically on intra-network systems are Microsoft Outlook®,
Novell Groupwise®, Lotus Notes®, or Internet browsers such as Netscape Communicator®. E-
mail accessing software typically allows the user to access his or her electronic mailbox to
check for e-mails. The control software may therefore be run in conjunction with the e-mail
accessing software to detect receipt of new e-mail in the user's account.

Control software 5 may detect the receipt of e-mail by looking for the particular e-
mail alerting message employed by the particular e-mail accessing software. For example,
where the user's e-mail accessing software is the Microsoft Outlook® the control software
could utilize the Microsoft Foundation Class API (Application Program Interface) to intercept the event signals generated by the Outlook’s e-mail notification function when it detects a receipt of an e-mail.

The control software may also detect the receipt of e-mail by directly accessing the user’s e-mail server. Where the Internet accessing device is connected to the e-mail server through a network where the connection to the e-mail server is always available, the control software can be configured to check the user’s e-mail server automatically at predetermined or user defined time intervals. If receipt of e-mails is detected, pass-key device 55 will produce a response output to notify the user.

Where the Internet accessing device is connected to the e-mail server through a dial-up connection, and the user is not online (i.e., the e-mail accessing software 3 is not running and the dial-up connection has not been made) control software 5 may be adapted to periodically cause Internet accessing device 10 to dial up the e-mail server to check the user’s electronic mailbox. If new e-mail has not been received, the connection to the e-mail server may be immediately disconnected and the process may be repeated in a time interval which may be predetermined or defined by the user.

If the user is already online and the dial-up connection is already in place, control software 5 may be configured to check the user’s electronic mailbox automatically at predetermined or user defined time intervals.

Control software 5 also may override the e-mail accessing software’s e-mail alerting message so that the Internet accessing device’s notification function is disabled, or the Internet accessing device can provide notification along with the pass-key device. It is preferred that the control software detect the receipt of new e-mail, unopened e-mail or the existence of old e-mail and preferably the user will be able to configure the control software to choose the particular format or formats which the pass-key device will employ to provide notification.

Once control software 5 detects the e-mail, it generates an appropriate control signal 32 to be transmitted to pass-key device 55. To transmit the control signal 32, Internet accessing device 10 may be provided with at least one communication port 12 and pass-key device 55 may be provided with at least one communication port 60. Where the Internet accessing device 10 is a typical personal computer system, the communication port 12 in the
Internet accessing device may be anyone of the Input/Output ports generally available in personal computers, such as a serial port, parallel port, USB port, etc. The communication ports of both Internet accessing device 10 and pass-key device 55 may be connected via a cable connection 11. The cable may be formed of a metal conductor cable, fiberoptic cable, or both.

The communication port in the pass-key device preferably is appropriately configured to receive and process, if necessary, the control signal transmitted by the Internet accessing device. For example, where the Internet accessing device transmits the control signal via a serial communication port and the control signal includes of an information data signal, the communication port in the e-mail notification device would typically be provided with a UART (Universal Asynchronous Receiver Transmitter) device to properly decipher the data signal.

Pass-key device 55 may be provided with one or more output devices 70 which receives control signal 32 through communication port 60 and responds with an appropriate response 80, such as, for example, turning on or off a light, producing an audible sound, moving a part or parts of the pass-key device, or any combination of these responses.

Figure 3a illustrates a generalized flow diagram for the e-mail checking and notification aspect of the operation of the embodiment of a pass-key device described in the Figure 3. The user logs onto his or her e-mail account on the Internet or on an intra-network service using e-mail accessing software 3 on the Internet accessing device 10. Control software 5 running in conjunction with e-mail accessing software 3 on data processing device 30 of Internet accessing device 10 looks for or monitors and, if present, detects receipt of e-mails. If an e-mail is detected, the control software generates appropriate control signal 32 and transmits it to communication port 12. Control signal 32 is transmitted from communication port 12 provided in Internet accessing device 10 to communication port 60 provided in pass-key device 55 via a cable link 11. One or more output devices 70 respond with appropriate response 80.

Figure 4 is a block diagram illustrating another embodiment of the present invention. As illustrated, control software 5 may be loaded onto Internet accessing device 10 and run in conjunction with the e-mail accessing software 3 on data processing device 30 as previously described in Figure 3. Control software 5 monitors the user’s e-mail server for receipt of e-
mails.

Then, once control software 5 detects the receipt of e-mail delivered to the user’s e-mail server, it generates a control signal 50 to be transmitted to pass-key device 155. Control signal 50 may be in a form embedded with command data 58 instructing pass-key device 155 to respond in a particular manner. Internet accessing device 10 may be provided with at least one communication port 12 and pass-key device 155 may be provided with at least one communication port 160 which are linked by a cable 11 to enable transmission of the control signal 50 to pass-key device 155.

A data processing device 116 provided in pass-key device 155 receives control signal 50 through communication port 160, processes command data 58 embedded in control signal 50 and sends an output signal 132 to a light output device 170. Light output device 170 may comprise one or more light sources such as small light bulbs or LEDs. Pass-key device 155 produces a notification response 180 as a result of the output signal; in this case the light sources may be turned on or off, or made to blink to notify the user that new e-mail has been received or e-mail exists or has not been opened.

By use of a data processing device 116 which may comprise a microprocessor or other logic devices, the pass-key device may be provided with the flexibility to perform multiple functions or may be able to keep track of the number of e-mails and produce an appropriate notification response 180 incorporating such additional information.

Figure 4a illustrates a generalized flow diagram for the e-mail checking and notification aspect of the operation of the embodiment of a pass-key device described in the Figure 4. As shown, the user logs onto his or her e-mail account on the Internet or on an intra-network service using e-mail accessing software 3 on Internet accessing device 10. Control software 5 running in conjunction with e-mail accessing software 3 monitors for, and if present, detects, for example, receipt of e-mails. If an e-mail is detected, control software 5 transmits a control signal 50 to pass-key device 155 via communication port 12 provided in Internet accessing device 10. Data processing device 116 provided in pass-key device 155 receives control signal 50 through communication port 160. Data processing device 116 processes command data 58 embedded in control signal 50 and generates light output signal 132. Light output signal 132 is then directed to a light output device 170 provided in pass-key device 155. Light output device 170 produces a response 180 (for example blinking
light) which notifies the user that new e-mail has been received.

Referring to Figure 5, in this embodiment control software 5 may be loaded onto Internet accessing device 10 and run in conjunction with the e-mail accessing software 3 on data processing device 30 as previously described in Figure 3. When control software 5 detects, for example, the receipt of e-mail delivered to the user's e-mail server on the Internet or on an intra-network service, it generates a control signal 50 to be transmitted to pass-key device 255. Control signal 50 may be in a form embedded with command data 58 instructing pass-key device 255 to respond in a particular manner.

In this embodiment, Internet accessing device 10 has at least one communication port 12 and pass-key device 255 has at least one communication port 260 which are linked by a cable 11 to enable transmission of control signal 50 to pass-key device 255. A data processing device 216 provided in pass-key device 255 receives control signal 50 through communication port 260, processes command data 58 embedded in control signal 50 and sends an output signal 232 to an audio output device 270. Audio output device 270 may comprise one or more speakers 275 and may also include an amplifier 278. Response 280 produced by audio output device 270 may be a simple sound (e.g., a beep) or playback of one or more speech clips which are prerecorded in data storage device 265. Data storage device 265 may be a voice chip (which are typically a ROM chip with sound clips of voices prerecorded on it), a magnetic storage device, or other suitable storage device. The prerecorded speech preferably may be in the well-recognized voice of the particular character depicted by the pass-key device.

Pass-key device 255 may also include a data storage device 265 containing prerecorded audio data 268. In response to output signal 232, prerecorded audio data 268 may be played back through speakers 275. It can be appreciated that where a data storage device 265 is provided in pass-key device 255, control software 5 may be provided in data storage device 265 and installed onto data processing device 30 provided in Internet accessing device 10 via the communication link between pass-key device 255 and Internet accessing device 10.

Figure 5a illustrates a generalized flow diagram for the e-mail checking and notification aspect of the operation of the embodiment of a pass-key device described in Figure 5. The user logs onto his or her e-mail account on the Internet or on an intra-network
service using e-mail accessing software 3 on Internet accessing device 10. When control software 5 running in conjunction with e-mail accessing software 3 detects receipt of new e-mail. A control signal 50 is transmitted to pass-key device 255 via communication port 12 provided in the Internet accessing device. Data processing device 216 provided in pass-key device 255 receives control signal 50 through communication port 260. Data processing device 216 processes command data 58 embedded in control signal 50 and generates output signal 232. Output signal 232 is directed to an audio output device 270. Audio output device 270 produces a response 280 (for example, a sound) which notifies the user that new e-mail has been received.

Figure 6 is a block diagram illustrating another embodiment, where instead of a cable as in Figure 5, a wireless communication link is provided between Internet accessing device 10 and pass-key device 255. Internet accessing device 10 and pass-key device 255 may be the same and operate as described in Figure 5 except the Internet accessing device may be provided with at least one communication port 12 comprising a wireless transmitter 240 for transmitting control signal 50. Pass-key device 255 may be provided with at least one communication port 260 comprising a wireless receiver 262 for receiving control signal 50. Transmitter 240 and receiver 262 may comprise, for example, infrared or radio transmitters and receivers, respectively.

Figure 6a illustrates a generalized flow diagram for the e-mail checking and notification aspect of the operation of the embodiment of a pass-key device described in Figure 6. The operation of this embodiment follows the same steps described in the Figure 5a, except that the transmission and reception of control signal 50 are accomplished via a matched wireless transmitter 240 and receiver 262.

Figure 7 illustrates another embodiment of the invention having a wireless communication link between Internet accessing device 10 and pass-key device 355 where the pass-key device executes the e-mail notification by a combination of audio output and movement. Control software 5 may be loaded onto Internet accessing device 10 and enabled as previously described in Figure 5.

Then, once the control software detects the receipt of new e-mail delivered to the user's e-mail server, it generates a control signal 50 to be transmitted to pass-key device 355. Control signal 50 may be in a form embedded with command data 58 instructing pass-key
device 355 to respond in a particular manner. Internet accessing device 10 may be provided with at least one communication port 12 comprising a wireless transmitter 340 for transmitting control signal 50. Pass-key device 355 may be provided with at least one communication port 360 comprising a wireless receiver 362 for receiving the control signal 50.

A data processing device 316 receives control signal 50 through communication port 360, processes command data 58 embedded in control signal 50 and sends appropriate output signals 332a and 332b to an audio output device 370 and an actuator 385, respectively.

Audio output device 370 may comprise one or more speakers 375 and may also include an amplifier 378. Pass-key device 355 may also include a data storage device 365 containing prerecorded audio data 368. In response to output signal 332a, prerecorded audio data 368 may be played back and emitted via speakers 375. Response 380 produced by audio output device 370 may be a speech which may be prerecorded in data storage device 365. The speech may preferably be recorded in the well-recognized voice of the particular character depicted by the pass-key device.

Actuator 385 may comprise electro-mechanical drive units (such as motors, solenoids, transducers, or the like) and in response to output signal 332b, actuator 385 moves movable part 390 of pass-key device 355. For example, movable part 390 may be a rotating torso and arms of a baseball player figurine which swings a bat in response to actuation by actuator 385, etc.

Figure 7a illustrates a generalized flow diagram for the e-mail checking and notification aspect of the operation of the embodiment of a pass-key device described in Figure 7. The user logs onto his or her e-mail account on the Internet or on an intra-network service using e-mail accessing software 3 on Internet accessing device 10. When control software 5 running in conjunction with e-mail accessing software 3 detects, for example, the receipt of new e-mail it transmits a control signal 50 to pass-key device 355 via a wireless communications link provided between Internet accessing device 10 and pass-key device 355. Data processing device 316 provided in pass-key device 355 receives control signal 50 through communication port 360. Data processing device 316 processes command data 58 embedded in control signal 50 and generates appropriate output signals 332a and 332b. Audio output signal 332a is directed to an audio output device 370 and motion output signal
332b is directed to an actuator 385. Sound output device 370 produces a sound and actuator 385 moves a part or parts of the pass-key device.

Figure 8 illustrates another embodiment, where pass-key device 355 may be provided with additional output device 395 which is a display device. In this embodiment, command data 58 embedded in control signal 50 may include information on the contents of the e-mails. This information is sent to display device 395 by the data processing device 316 as output signal 332c. In response to output signal 332c, display device 395 will display the contents of the e-mails for the user to read.

In another variation of this embodiment, the e-mail content information carried by command data 58 may be stored in data storage device 365 which enables the user to download e-mails to pass-key device 355 and use it as an independent e-mail reader independent of Internet accessing device 10. Display device 395 may also be provided with a second data storage device 397 which may be dedicated for storing the downloaded e-mails. In this embodiment display device 395 and data storage device 397 may be incorporated in a separate housing or enclosure which may be selectively removable from pass-key device 355 so that the user may take the separate housing with him to read his or her e-mails at locations independent from the pass-key device or Internet accessing device, such as while commuting on a train. The separate housing is preferably compact and light weight and may include a separate power supply, such as, for example, a battery.

Figure 9 illustrates an embodiment of a pass-key device implementing the invention illustrated in Figures 7 and 7a, where pass-key device 355 is in the form of a stuffed teddy bear. Sound output device 370 is preferably located near the mouth of the teddy bear 355. Actuator 385 is also located near the mouth of the teddy bear and movable part 390 is the mouth region of the teddy bear, which moves in synchronization with the sound output so that the toy appears to be speaking. Communication port 360 and data processing device 316 are shown to be within the torso of the teddy bear 355.

Figure 10 illustrates another embodiment of pass-key device 455 in the form of a toy police car. This embodiment has an audio output device 470, a spinning roof light 428, and a pair of headlights 430. Roof light 428 is connected to an actuator 485 which spins the roof light in response to output signal 432a. Thus, in response to output signals 432a, 432b, and 432c from data processing device 416, the roof light may light up and spin while headlights
may flash with a pattern which is synchronous with audio output by audio output device 470. For example, receipt of e-mail in the user's e-mail server can trigger the roof light and the headlights, while a voice saying “Halt, you have mail,” may be repeated for a preset number of times through sound output device 470.

In many of the embodiments of the pass-key device discussed here, the operation of the pass-key device may be further enhanced by configuring the limited-access Web page of the community Web site to control the pass-key device. Once the user is logged onto the limited-access Web page, the Web site server may send data packets containing application codes (i.e., Java™ applets) to the Internet accessing device to control the pass-key device.

The application code may then enable the Internet accessing device to send control signals to the pass-key device and activate the pass-key device to respond as desired. For example, if the limited-access Web page is displaying a merchandise for sale on the Web page, the Web site server could send an application code to the Internet accessing device to make the pass-key device say “You've got to get this great item!” or perform some other desired output.

Figure 11 illustrates another embodiment of the invention where, as an example, a user input device 220 has been added to pass-key device 255 previously described in Figure 6. User input device 220 may be one or more buttons, keys, touch pads, dials, turning knobs, or the like. Using user input device 220, the user may change or modify output signal 232 generated by data processing device 216. Also, as in pass-key device 255, where audio output device 270 utilizes a data storage device 265 to play back prerecorded audio data 268, user input device 220 may be configured to allow users to choose from a selection of prerecorded audio data to be played back by the audio output device 270. User input device 220 may also be used to activate audio output device 270 to produce sound independent of the e-mail notification function of the pass-key device.

It can be appreciated that a second user input device 20 may be provided in Internet accessing device 10. Second user input device 20 may allow the user to input data to control software 5 and manipulate parameters of control signal 50 or command data 58 embedded in the control signal. Where the control software is capable of accessing remote computer systems accessible through Intra-networks, the Internet, or online services, second user input device 20 may be configured to allow the user to perform such functions as downloading new or updated data files for control software 5 from the remote computer systems in order to
modify or enhance the toy’s capabilities. For example, a limited-access Web site may provide features that will allow its customers to download music or stories into the data storage device of his or her pass-key device. The customer may then use the pass-key device as a standalone device to playback the music or stories.

The pass-key device may be powered by an onboard power source (one or more batteries) or outside power source, such as through a link with the Internet accessing device with a power source. For example, an onboard battery 431 is illustrated in toy car 455 in Figure 10. Communications port 460 and data processing device 416 are shown to be within the body of the toy car. The location of the components in Figure 10 is shown only as an example of one possible configuration.

Although the present invention has been described with particular reference to some embodiments, it should be understood that many variations and modifications will now be obvious to those skilled in that art, and therefore, that the scope of the invention not be limited by the specific disclosure herein, but only by the appended claims. For example, from the foregoing, it can be seen how the e-mail notifying pass-key device can also combine movement, audio output and lights as a notification means. It is also to be understood that the e-mail notification device, although described primarily with reference to the receipt of new e-mail, can also provide notification of old but unopened e-mail as well as the existence of old opened e-mails.
We claim:

1. A system for marketing to members of a common interest group comprising:
   a marketing plan with a theme related to the interests of the common interest group;
   limited-access products and services provided as part of the marketing plan; and
   a pass-key device configured to have physical attributes related to the theme of the
   marketing plan and the interests of the common interest group, wherein the pass-key device
   provides access to the limited-access products and services.

2. A system for marketing to members of a common interest group according to claim 1,
   wherein the pass-key device is an e-mail notification device which is communicatively
   connected to an Internet accessing device.

3. A system for providing an online virtual community for customers belonging to a
   common interest group comprising:
   an Internet community Web site with a theme related to the interests of the common
   interest group;
   at least one limited-access Web page provided within the Internet community Web
   site; and
   a community specific pass-key device configured to have attributes related to the
   theme of the community Web site, wherein the pass-key device provides access to the
   limited-access Web page.

4. A system for providing an online virtual community according to claim 3, wherein the
   pass-key device provides access to the limited-access Web page by providing a log-in
   password required to access the limited-access Web page in a printed medium.

5. A system for providing an online virtual community according to claim 3, wherein the
   community specific pass-key device is an e-mail notification device which is
   communicatively connected to an Internet accessing device.
6. A system for providing an online virtual community according to claim 3, wherein the pass-key device is communicatively connected to an Internet accessing device and provides access to the limited-access Web page by providing a log-in password required to access the limited-access Web page encoded in a data storage device provided in the pass-key device such that the Internet accessing device can obtain the log-in password from the data storage device.

7. A system for providing an online virtual community according to claim 6, wherein the Internet accessing device can automatically obtain the log-in password from the data storage device.

8. A system for providing an online virtual community according to claim 6, wherein the data storage device is capable of storing multimedia data downloaded from the Internet community Web site for subsequent playback of the multimedia data.

9. A system for providing an online virtual community according to claim 8, wherein the pass-key device is further configured with a processor unit for coordinating the storage, recalling, and playing back of the multimedia data.

10. A system for providing an online virtual community according to claims 6, wherein the pass-key device is configured to provide URL address of the Internet community Web site to the Internet accessing device.

11. A system for providing an online virtual community according to claim 6, wherein the pass-key device is configured to provide a user ID associated with the log-in password.

12. A community specific pass-key device for generating interest in an online virtual community for a common interest group and marketing products of a specific theme comprising:

   a housing adapted and shaped to be readily identifiable with and correspond to the theme;
a communications port adapted and configured to connect to an Internet accessing device;

a data storage device encoded with a log-in password for providing access to a limited-access Web page; and

the merchandise adapted and configured so that the log-in password is transmitted to the limited-access Web page’s host server to verify that the user is authorized to access the limited-access Web page.

13. A community specific pass-key device according to claim 12, wherein the data storage device is capable of storing multimedia data downloaded from the community Web site for subsequent playback by the pass-key device.

14. A community specific pass-key device according to claim 12, further comprising a processor unit for coordinating the storage, recalling, and playing back of the multi-media data.

15. A community specific pass-key device according to claim 12, wherein the pass-key device is configured to provide the URL address of the Internet community Web site to the Internet accessing device.

16. A community specific pass-key device according to claim 12, wherein the community specific pass-key device is an e-mail notification device which is communicatively connected to an Internet accessing device.

17. A method of providing an online community to customers of a common interest group comprising:

providing an Internet community Web site with a theme related to the interests of the common interest group;

providing at least one limited-access Web page within the Internet community Web site;

providing a community specific pass-key device to a customer of the common interest
group, wherein the pass-key device is configured with attributes related to the theme of the
community Web site, and having a data storage device encoded with a log-in password
required to access the limited-access Web page;
    connecting the pass-key device to an Internet accessing device such that the Internet
accessing device can obtain the log-in password from the data storage device;
    transmitting the log-in password information from the Internet accessing device to the
community Web site server computer via an Internet browser;
    processing the log-in password information by the Web site server computer to
determine the validity of the log-in password; and
    providing the customer with access to the limited-access Web page where the log-in
password is valid.

18. A method of providing an online virtual community to customers of a common
interest group comprising:
    providing an Internet community Web site with a theme related to the interests of the
common interest group;
    providing at least one limited-access Web page;
    providing a community specific pass-key device to a customer of the common interest
group, wherein the pass-key device is configured with physical attributes related to the theme
of the community Web site and having a data storage device encoded with a user ID and a
log-in password required to access the limited-access Web page;
    connecting the pass-key device to an Internet accessing device such that the Internet
accessing device can obtain the user ID and the log-in password from the data storage device;
    transmitting the user ID and the log-in password information from the Internet
accessing device to the community Web site server computer via an Internet browser;
    processing the user ID and the log-in password information by the server computer to
determine the validity of the user ID and the log-in password by comparing the user ID and
log-in password information to a previously established database of valid user IDs and their
associated passwords; and
    providing the customer with access to the limited-access Web page where the user ID
and the log-in password matches the information from the database.
USER Installs pass-key merchandise's control program on an internet accessing device

The control program is enabled

Using an internet browser installed on the internet accessing device, user goes to the limited-access web page's log-in screen

The control program reads the log-in password data from the pass-key merchandise's data storage device

The control program passes the log-in password to the internet browser

The internet browser sends the log-in password to the limited-access web page's server computer

Fig. 2
USER LOGS ON TO HIS OR HER
E-MAIL ACCOUNT ON THE INTERNET
OR ON AN INTRA-NETWORK SERVICE
USING E-MAIL ACCESSING SOFTWARE

THE CONTROL SOFTWARE MONITORS
FOR AND DETECTS RECEIPT OF E-MAILS
IN THE USER’S E-MAIL SERVER

CONTROL SOFTWARE UTILIZES
DATA PROCESSING DEVICE
PROVIDED IN THE E-MAIL ACCESSING
DEVICE TO GENERATE APPROPRIATE
CONTROL SIGNALS

CONTROL SIGNAL IS TRANSMITTED FROM
E-MAIL ACCESSING DEVICE TO
TOY DEVICE VIA A LINK BETWEEN EACH
DEVICE’S COMMUNICATION PORTS

ONE OR MORE OUTPUT DEVICES
PRODUCES AN APPROPRIATE
RESPONSE OUTPUT

Fig. 3a
USER LOGS ONTO HIS OR HER E-MAIL ACCOUNT ON THE INTERNET OR ON AN INTRA-NETWORK SERVICE USING E-MAIL ACCESSING SOFTWARE

THE CONTROL SOFTWARE MONITORS FOR AND DETECTS RECEIPT OF E-MAILS IN THE USER'S E-MAIL SERVER

CONTROL SIGNAL IS TRANSMITTED TO TOY DEVICE VIA COMMUNICATION PORT PROVIDED IN THE E-MAIL ACCESSING DEVICE

CONTROL SIGNAL IS RECEIVED BY DATA PROCESSING DEVICE THROUGH COMMUNICATION PORT PROVIDED IN THE TOY DEVICE

DATA PROCESSING DEVICE PROCESSES RECEIVED DATA AND GENERATES OUTPUT SIGNAL

OUTPUT SIGNAL IS DIRECTED TO LIGHT OUTPUT DEVICE

LIGHT OUTPUT DEVICE ACTIVATED

Fig. 4a
USER LOGS ONTO HIS OR HER E-MAIL ACCOUNT ON THE INTERNET OR ON AN INTRA-NETWORK SERVICE USING E-MAIL ACCESSING SOFTWARE

THE CONTROL SOFTWARE MONITORS FOR AND DETECTS RECEIPT OF E-MAILS IN THE USER'S E-MAIL SERVER

CONTROL SIGNAL IS TRANSMITTED TO TOY DEVICE VIA COMMUNICATION PORT PROVIDED IN THE E-MAIL ACCESSING DEVICE

CONTROL SIGNAL IS RECEIVED BY DATA PROCESSING DEVICE THROUGH THE COMMUNICATION PORT PROVIDED IN THE TOY DEVICE

DATA PROCESSING DEVICE PROCESSES RECEIVED DATA AND GENERATES OUTPUT SIGNAL

OUTPUT SIGNAL IS DIRECTED TO AUDIO OUTPUT DEVICE

AUDIO OUTPUT DEVICE PRODUCES SOUND

Fig. 5a
USER LOGS ONTO HIS OR HER
E-MAIL ACCOUNT ON THE INTERNET
OR ON AN INTRA-NETWORK SERVICE
USING E-MAIL ACCESSING SOFTWARE

THE CONTROL SOFTWARE MONITORS
FOR AND DETECTS RECEIPT OF E-MAILS
IN THE USER'S E-MAIL SERVER

CONTROL SIGNAL IS TRANSMITTED
TO TOY DEVICE VIA
COMMUNICATION PORT EQUIPPED
WITH A WIRELESS TRANSMITTER
PROVIDED IN THE E-MAIL
ACCESSING DEVICE

CONTROL SIGNAL IS RECEIVED
BY DATA PROCESSING DEVICE THROUGH
COMMUNICATION PORT
EQUIPPED WITH A WIRELESS RECEIVER
PROVIDED IN THE TOY DEVICE

DATA PROCESSING
DEVICE PROCESSES
RECEIVED DATA AND
GENERATES OUTPUT SIGNAL

OUTPUT SIGNAL IS DIRECTED
TO AUDIO OUTPUT DEVICE

AUDIO OUTPUT DEVICE
PRODUCES SOUND

Fig. 6a
USER LOGS ONTO HIS OR HER E-MAIL ACCOUNT ON THE INTERNET OR ON AN INTRA-NETWORK SERVICE USING E-MAIL ACCESSING SOFTWARE

THE CONTROL SOFTWARE MONITORS FOR AND DETECTS RECEIPT OF E-MAILS IN THE USER'S E-MAIL SERVER

CONTROL SIGNAL IS TRANSMITTED TO TOY DEVICE VIA COMMUNICATION PORT EQUIPPED WITH A WIRELESS TRANSMITTER PROVIDED IN THE E-MAIL ACCESSING DEVICE

CONTROL SIGNAL IS RECEIVED BY DATA PROCESSING DEVICE THROUGH COMMUNICATION PORT EQUIPPED WITH A WIRELESS RECEIVER PROVIDED IN THE TOY DEVICE

DATA PROCESSING DEVICE PROCESSES RECEIVED DATA AND GENERATES OUTPUT SIGNAL

AUDIO OUTPUT SIGNAL IS DIRECTED TO AUDIO OUTPUT DEVICE AND ANIMATION OUTPUT SIGNAL IS DIRECTED TO AN ACTUATOR

AUDIO OUTPUT DEVICE PRODUCES SOUND AND AN ACTUATOR MOVES MOVABLE PART OF THE TOY DEVICE

Fig. 7a
INTERNATIONAL SEARCH REPORT

International application No.
PCT/US01/03577

A. CLASSIFICATION OF SUBJECT MATTER
IPC(7) :G06P 15/173, 15/16
US CL :709/225, 229
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED
Minimum documentation searched (classification system followed by classification symbols)
U.S. : 709/225, 229; 713/200, 201

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
STN
search terms: member, subscriber, limit access, token, authenticate, tiers, levels

C. DOCUMENTS CONSIDERED TO BE RELEVANT

<table>
<thead>
<tr>
<th>Category</th>
<th>Citation of document, with indication, where appropriate, of the relevant passages</th>
<th>Relevant to claim No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y</td>
<td>US 5,875,296 A (SHI et al.) 23 February 1999, col. 4, line 50 - col. 6, line 63.</td>
<td>1-18</td>
</tr>
<tr>
<td>Y</td>
<td>US 5,999,978 A (ANGAL et al.) 07 December 1999, see entire document.</td>
<td>1-18</td>
</tr>
<tr>
<td>A</td>
<td>US 5,345,506 A (TSUBAKIYAMA et al.) 06 September 1994, col. 3, line 36 - col. 4, line 33.</td>
<td>1-18</td>
</tr>
<tr>
<td>A</td>
<td>US 5,684,950 A (DARE et al.) 04 November 1997, col. 4, line 1 - col. 5, line 45.</td>
<td>1-18</td>
</tr>
</tbody>
</table>

☐ Further documents are listed in the continuation of Box C.  ☐ See patent family annex.

* "* Special categories of cited documents:
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  "A" document member of the same patent family

Date of the actual completion of the international search
28 MARCH 2001

Date of mailing of the international search report
27 APR 2001

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