Title: A METHOD AND SYSTEM OF INITIATING ONLINE CHAT

Abstract: A method of initiating an online chat, comprising: (a) tracking user input; (b) automatically determining, by a server application, whether to conduct an online chat with a user connected to the server application from a remote computing device via a client software; and (c) conducting an online chat with the user, only if said step of automatically determining whether to conduct the online chat result is positive.
A METHOD AND SYSTEM OF INITIATING ONLINE CHAT

FIELD OF THE INVENTION

The present invention relates generally to a system and methods for customer retention and more specifically relates to online chat in online gaming.

BACKGROUND OF THE INVENTION

Online chat programs are used for real-time communication. In some business applications, such as, electronic commerce ("e-commerce") applications, customer retention techniques are employed. Offering promotions by an online store to an online customer, or using automated email are examples of customer retention techniques. U.S. Patent serial number 6,928,417, assigned to International Business Machines Corporation, demonstrates a method and system for conducting electronic commerce, that recognizes that the user is lost in attempting to find an item in an electronic store, and the system interactively queries, during a session, the user whether the user needs help in finding the item.

SUMMARY OF THE INVENTION

An aspect of some embodiments of the invention relates to a system or methods for customer retention in an online gaming system, and more specifically in client-server architecture. For instance, in a system where the user plays a game, such as poker or blackjack, or other games, such as multi-player environment games, using a client software communicating with a gaming server.

An aspect of some embodiments of the invention relates to customer retention when a user might experience difficulties in an online gaming session.

An aspect of some embodiments of the invention relates to customer retention when a user requests help or initiates a chat, in an online gaming session.

An aspect of some embodiments of the invention relates to methods or a system for automatically determining whether to initiate an online chat with a user that is interactively connected to a game server through a client-software or to automatically initiating the online chat.

An aspect of some embodiments of the invention relates to determination of events or conditions that warrant automatic notification thereof to relevant entities or relevant users or administrators in a gaming or multi-player environment.

An aspect of some embodiments of the present invention is a method or system for online gaming by a user, which includes taking the steps necessary to deposit funds into an
account associated with the user for a gaming purpose, recognizing that there exists a problem
in attempting to deposit the amount, and interactively initiating a real-time interaction with the
user, such as a live chat.

An aspect of some embodiments of the invention relates to methods or a system for
online gaming by a user, which includes determining whether the user may leave a gaming
session based on tracking of the user's inputs, and initiating, an online chat for interacting with
the user.

In an exemplary embodiment of the invention, the method of initiating an online chat
does not require installation of special software at a user's computer. Optionally, client-side
code may be installed or used.

An aspect of some embodiments of the invention relates to employing rule-based,
statistical-based or analytical techniques in connection with determining whether to initiate an
online chat with a user.

In accordance with an exemplary embodiment of the invention is provided a method of
initiating an online chat, comprising: (a) tracking user input; (b) automatically determining, by
a server application, whether to conduct an online chat with a user connected to the server
application from a remote computing device via a client software; and (c) conducting an online
chat with the user, only if said step of automatically determining whether to conduct the online
chat result is positive.

BRIEF DESCRIPTION OF THE FIGURES

Exemplary non-limited embodiments of the invention will be described, with reference
to the following description of the embodiments, in conjunction with the figures. The figures
are generally not shown to scale and any sizes are only meant to be exemplary and not
necessarily limiting. In the figures, identical structures, elements or parts that appear in more
than one figure are preferably labeled with a same or similar number in all the figures that they
appear in.

Fig. IA illustrates a generalized block diagram of a system, in accordance with
exemplary embodiments of the invention.

Fig. IB illustrates a generalized block diagram of an exemplary architecture of a
gaming system, in accordance with certain exemplary embodiments of the invention.

Fig. 2 illustrates a generalized block diagram of an exemplary architecture of a
customer retention engine in accordance with certain embodiments of the invention.
Fig. 3 is a flow chart of an exemplary method of client-server interaction, in accordance with exemplary embodiments of the invention.

Fig. 4 illustrates schematically an exemplary basic graphic user interface (GUI), showing a chat window on a client device, in accordance with exemplary embodiments of the invention.

Fig. 5 illustrates schematically an exemplary basic GUI showing an alert window, in accordance with exemplary embodiments of the invention.
DETAILED DESCRIPTION OF EXEMPLARY EMBODIMENTS

The invention, in some embodiments thereof, generally relates to customer retention in online gaming. Customer retention has been employed in various applications, for instance in electronic commerce.

The invention, in some embodiments thereof, relates to automatically determining whether to initiate an online chat with a user. The user may be interactively connected to a server through client software, hi some other embodiments, the user was offline connected to the software before launching or initiating the chat.

Fig. IA illustrates a generalized block diagram of a system 100 in accordance with exemplary embodiments of the invention. System 100 preferably includes a plurality of client terminals or computing devices 116, 118, 120, and server computers 150, 152. The computing devices 116, 118, and 120 may be a desktop computer, a laptop, a workstation, a handheld device, and the like.

System 100 comprises one or more users or players 110 and one or more administrators 112. The user or player 110 using a client computing device 120 connects through a communication network 140 to a gaming server 150. The gaming server 150 is not necessarily a single or stand-alone computer and may be distributed among several different computers running one or more applications. As shown in Fig. IA, the system 100 is of a client-server architecture. The administrator 112 can connect to the server computer 150 using a terminal or computing device 158. The administrator can perform administrator tasks.

The term "administrator" refers to a person or Interactive Voice Response (IVR) system which interacts with the user on behalf of the application or application owner or user or any other person.

Network 140 can be any type of network, such as the Internet, a local area network (LAN), a wide area network (WAN), a virtual private network (VPN), a wireless network, and the like. In certain exemplary embodiments of the invention the remote user 110 can access the gaming server 150 using a modem or a router or a switch.

Fig. IB illustrates a generalized block diagram of an exemplary architecture of the system 100, in accordance with certain embodiments of the invention.

In certain embodiments of the invention, communication between the computing device 120 of Fig. IA and the gaming server 150 of Fig. IA is between a first network interface 122 of Fig. IB and a second network interface 190 of Fig. IB.
In certain exemplary embodiments of the invention the computing device 120 includes a gaming application 130 installed thereon for access by the user 110. The user 110 may access or operate the gaming application via a user interface 132. The user interface 132 can be, for instance, a Java applet or included in a Java applet. The user interface may include HTML, JavaScript, Flash, and the like. The gaming application 130 can be used offline such that the user is not required to use any external communication as listed above. The gaming application may comprise a database for storing the user's former game-related data, such as number of games, favorable games, favorable hours, total duration, records and other user's preferences. The data can be user-related, in case more than one user utilizes the gaining application.

In exemplary embodiments of the invention, the gaming application 130 includes a chat module 134, which allows an online chat conversation to take place over the network 140. In exemplary embodiments of the invention, the chat module 134 is part of the user interface 132. The chat module 134 can be implemented by a Java applet, a flash chat, a HTML chat form, or other implementations.

The gaming server 150 comprises one or more gaming engines 160, and one or more databases 180. Optionally the gaming server 150 may include several databases. The database 180 can store historical data, rules (e.g. expert rules), or other data. Data stored in the gaming application database can be used by the server after transmitted from the client computing device 120 to the server when the client computing device 120 is online. Optionally the gaming server may include a personalized database 182 that keeps information particular to the user 110, for example, the user's gaming habits or the user's interactions or clicking habits.

Rules stored in the database 180 or 182, can for instance be of an "IF THEN" format, in which the THEN part is performed if the condition in the "IF" part is true. The following table demonstrates 3 rules relating to credit card transactions, according to an exemplary embodiment of the invention.

<table>
<thead>
<tr>
<th>IF</th>
<th>THEN</th>
</tr>
</thead>
<tbody>
<tr>
<td>A customer &quot;X&quot; has a credit card in good standing, unexpired, and the transaction amount is below the account limit. The customer rating is good. Transaction expiration date, address, and Card Verification Code (&quot;CVC&quot;) are unavailable.</td>
<td>The transaction ought to be authorized by the administrator as well as by the bank</td>
</tr>
</tbody>
</table>
Customer "Y" has a card in good standing, unexpired, and the transaction amount is below the account limit. But the transaction CVC and address do not match the ones on file.

Customer "Z" has a card in good standing, unexpired, and the transaction amount is under the account limit. But the customer rating is bad.

The transaction is disallowed.
The transaction is disallowed regardless of whether the bank allows it.

The gaming server 150 comprises a customer retention engine 200. In exemplary embodiments of the invention the customer retention engine 200 receives the clicks or information entered by the user 110, determines whether customer retention or online chat is needed, and then invokes a relevant software module or notifies at least one person, such as the administrator 112 of Fig. IA, or a customer assistant person, or notifies an external customer help facility or sends a message or sends an alert, or send an SMS message, or sends another form of notification.

In exemplary embodiments of the invention computing device 120 is connected to the gaming server 150 via a web server (not shown in Figs. IA, IB). Optionally the user 110 provides a user ID and password to the web server and the web server serves to qualify the remote user 110 to have access to software modules running on gaming server 150.

Fig. 2 illustrates the customer retention engine 200 in more detail. The retention engine 200 comprising: an event engine 210 for detecting events, a database 220, and an action module 230 for invoking a chat module 240 or optionally for notifying a predefined entity 242, such as the administrator 112 of Fig. IA. Optionally, the entity 242 interacts with the user 110. For example, the action module 230 can send an SMS alert message to the administrator 112. Database 220 may be the same as the database 180 of Fig. IB or a different database.

Fig. 3 is a flow chart 300 of a method of client-server interaction, in accordance with exemplary embodiments of the invention, hi step 302 the user 110 logs on into the gaming application server 150 of Fig. IA or optionally logs on to the web server connecting to the gaming application server 150. hi some other embodiment, the user can be logged on into the gaming application 130 of Fig. IB, prior or after connecting the computing device into the network. In such exemplary case, the gaming application can interact with the gaming
application server 150 and transmit relevant data over the network. In step 304 the user interacts with the server 150 by using ways of interaction known in gaming applications. A preferred mode of interaction is by clicking on various fields or typing certain information. The interaction may include taking the steps necessary to deposit funds into an account associated with the user. In exemplary embodiments of the invention the deposit of money is accomplished by using a credit or debit card. In step 306 the gaming application server 150 keeps track of the inputs. In step 308 the customer retention engine 200 determines whether customer retention is needed based on predetermined criteria or algorithms set up in advance. In exemplary embodiment of the present invention, the rule or criteria can be any one or more of the following the number of games played by the user, the total duration of the games, best score, averaged score and the like. The value inputted can be a total number, average or number of occurrences per a period of time, for example 35 games during the last 10 days. The criteria can be whether the value indicated regarding the parameters above is higher, equal or lower than a predetermined threshold, in some other cases, the criteria can be whether the user viewed the game's instructions, or entered a web page accordingly, when the customer support marked the player as having a need to chat, and when he will be online next time. Other parameters for determining whether to initiate a chat can be personal details of the user, such as age, gender, residence, credit status, marital status, occupation, and the like. The rule or criteria may be general or different according to gender, age, residence, game type and the like. In yet other exemplary embodiments the criteria can be rule based. For example, a chat session can be initiated automatically with a player who is taking an action that brings him closer to being a player that deposits money and is playing for money, as opposed to players having a "fun" status, i.e. non-paying players. In the present example, when the fun player enters into a game where real money is used, for example, where such player takes a seat at a real money table or tournament or free-roll the chat session is initiated. In some other embodiments, the chat is initiated when the player enters the cashier page, in some cases to start the deposit stage. In yet other exemplary embodiments, the chat session is initiated when the player is declined for placing a deposit and playing for real money. In exemplary embodiments of the invention, the engine 200 of Fig. 2 uses a rule based system or an expert system component or information stored in the database 180 or in the database 182.

If customer retention is needed the process continues to step 310. If the determination in step 308 is that no customer retention act is needed then the process loops back to step 304. In step 310 an online chat program is initiated or activated.
The present invention can be utilized in many applications besides the gaming application. Other such exemplary applications can be e-mail applications, spam prevention application, video display application, word processor application, data display application, programming tool, browser, compilers, image or audio processing tool, communication tool, painting tool or any other installable marketed application. The said application is installed in the user's computer, used for a predetermined period of time and then expired. The present invention tracks the user's utilization of the application, tracks whether it was sent to another computer or another person, was copied to external memory storage or other acts, and initiates a chat between the company and the user in case the acts and/or utilization fit predetermined criteria. The method conducted for the purposes of customer retention, increasing profits or sales, increasing customer satisfaction, and providing help or assistance to the user.

The inventive online chat is different from a general "help" or "FAQ" mechanism available on websites where the user has to explicitly go to the "help" facility and look for information on what to do in case of encountering a problem. A "help" or "FAQ" is usually static in nature or too general. The inventive online chat in addition to allowing providing help and assistance to a user, facilitates customer retention, provides personal attention to the user, and improves the business prospects of the gaming service. This is especially important in the gaming industry where users tend to switch between gaming providers if access to the gaming service is too difficult or complicated. The present invention enables a gaming operator to retain such clients and prospective clients who find it difficult to follow the steps necessary in order to connect to the gaming service.

Figs. 4, 5 schematically illustrate by way of non-limiting examples exemplary basic graphic user interface ("GUI"), in accordance with certain embodiments of the invention. Fig. 4 illustrates a user interface 400 appearing on a display of the user 110. Fig. 4 illustrates a chat window 410. The chat window 410 contains a message 412 sent by the administrator 112 to the user 110, a chat box 414 where the user's input may be displayed and a "SEND" button 416 allowing the user to input text and send such text to the chat module 240 of Fig. 2. In the present example, the message was sent to the user, because the deposit transaction the user attempted was unsuccessful, and the problem was detected by the customer retention engine 200 of Fig. 2.

Fig. 5 illustrates a user interface 500 appearing on a display of the administrator 112, under an exemplary embodiment of the invention. The user interface 500 may include a display area 502, 504, 506. An alert window 510 appears on display area 504 as a result of an event.
detected by the event engine 210 of Fig. 2. The alert window 510 includes details of a failed transaction. The gaming administrator 112 can initiate a chat session using an "OPEN CHAT" button 520.

It is understood that the systems, functions, methods, engines and modules described herein can be implemented in hardware, software, or a combination of hardware and software. They may be implemented by any type of computer system or other apparatus adapted for carrying out the methods described herein.

The present invention has been described using non-limiting detailed descriptions of embodiments thereof that are provided by way of example and are not intended to limit the scope of the invention. It should be understood that features or steps described with respect to one embodiment may be used with other embodiments and that not all embodiments of the invention have all of the features or steps shown in a particular figure or described with respect to one of the embodiments. It is noted that some of the above described embodiments may describe the best mode contemplated by the inventors and therefore include structure, acts or details of structures and acts that may not be essential to the invention and which are described as examples.

While the above description has focused on methods, it is meant to also encompass apparatus for carrying out the invention. The apparatus may be a system comprising of hardware and software. The apparatus may be a system, such as, programmed computers or a network appliance. The apparatus may include various computer readable media having suitable software thereon, for example, floppy disks, CD-ROMs, magnetic or optical cards, flash RAM, or any other type of media suitable for storing electronic instructions.

Structure and acts described herein are replaceable by equivalents, which perform the same function, even if the structure or acts are different, as known in the art. Therefore, only the elements and limitations as used in the claims limit the scope of the invention. Furthermore, the terms "comprise", "include", "have" and their conjugates mean, when used in the claims, "including but not limited to".
Claims

1. A method of initiating an online chat between a user and an administrator, comprising:
   (a) tracking user utilization of the applications, acts performed on the application and personal data inputted by the user;
   (b) determining whether to conduct an online chat with a user connected to the server application according to at least one rule or criteria comparing the tracked utilization of the application and acts to a predetermined value; and,
   (c) conducting an online chat with the user, in case a predetermined number of criteria and rules are satisfied.

2. The method according to claim 1, wherein the server application is an online gaming application.

3. The method according to claim 1, further comprising a step of storing data related to user utilization of the applications and acts performed on the application in a database located in the application.

4. The method according to claim 1, further comprising a step of transmitting the step of data related to user utilization of the applications and acts performed on the application in a database located in the application to the server to facilitate the step of determining whether to initiate the online chat.

5. The method according to claim 1, wherein said step of determining whether to conduct an online chat is without human intervention.

6. The method according to claim 1, wherein said step of determining whether to conduct an online chat comprises using certain data associated with the user and stored in an application event database or in the application server database.

7. The method according to claim 1, wherein the personal data is selected from age, gender, occupation, hobbies, preferences, marital status, residence or other personal data of the user.

8. The method according to claim 1, wherein the acts performed on the application, sending the application over a network, copying at least a portion of the data located in the application files, copying the application into a memory device, reading the application instructions, and the like.

9. The method according to claim 1, wherein said step of determining whether to conduct an online chat comprises using statistical data.
10. The method according to claim 1, wherein said step of determining whether to conduct an online chat comprises detecting whether the user's credit increases or decreases by a sum higher than a predetermined amount of money.

11. The method according to claim 1, wherein the step of determining whether to conduct an online chat is determined on an event selected from refusal to accept a credit or debit card transaction, registration as a new customer, detecting that the user used a credit or debit card that was reported as lost or stolen, detecting initial deposition higher than a predetermined value, detecting rejection of user's transaction.

12. The method according to claim 1, comprising the step of recognizing that the user encountered a difficulty in utilizing the application.

13. The method according to claim 12, wherein the difficulty encountered by the user is associated with performing a transaction.

14. The method according to claim 12, wherein recognizing is done when the user terminates utilization on a certain step, display or stage, task of the application, or a requirement concerning the application.

15. The method according to claim 1, further comprising the step of notifying the at least one application licensee representative that the chat should be initiated.

16. A system for managing event driven online chats related to an application installed on a user's computing device, comprising:

(a) an event engine that receives event information relating to a user, analyzes the received event information and determines if an online chat should be conducted between a certain administrator and the user; and

(b) an action module that notifies an at least one entity that a chat can be conducted; and

(c) an online chat module to conduct an online chat between the administrator and the user in response to said notification.

17. The system according to claim 16, further comprising a first database adapted to store user utilization of the applications, acts performed on the application and personal data inputted by the user.

18. The system according to claim 17, wherein the first database is in connection with a second database connected to the application, said second database stores data when the user's computing device is offline.

19. The system according to claim 16, further comprising a graphic user interface appearing on the display of the computing device and on the display of the administrator.
20. The system according to claim 20, wherein the graphic user interface comprises a chat window, alert window and at least one button for managing the chat.

21. A system adapted for event driven online chat, comprising:

(a) a server computer in communication with a user over a communication network, the server computer comprising a gaming engine; and
(b) an event engine running on the server computer to trigger a notification to the at least one administrator associated with the user and connected to the server computer; and
(c) a chat module on the server computer for conducting an online chat between the administrator and the user;

wherein the administrator conducts the online chat in response to said notification.
Fig. 1b
Fig. 3
Deposit Alert:

Player: John
Method: Immediate Deposit
First deposit: No
Transaction status: Failed deposit attempt
Date: 2006-08-09 11:20:34
Decline reason: maxlimit=300
Amount: 8888