

INFORMATION DELIVERY APPARATUS AND

INFORMATION DELIVERY METHOD

BACKGROUND OF THE INVENTION

1. Field of the Invention

The present invention relates to an information delivery apparatus for periodically delivering information to a registrant and an information delivery method, and particularly to an information delivery apparatus for delivering, when a registrant takes a previously set specific action, information to this registrant and an information delivery method.

2. Description of Related Art

Conventionally, there has been an information delivery apparatus in which attribute information (interest, taste, age, gender, etc.) and delivery destinations of information are registered for each registrant, and delivery information corresponding to the attribute information of the registrant is delivered to the registrant at a previously set timing. For example, there has been an information delivery apparatus in which when a registrant passes through a passageway of an automatic ticket gate installed in a station (when he/she enters the station or exits from the station), delivery information is delivered to a cellular phone of this registrant by electronic mail (patent document 1, 2). The

information delivery apparatus recited in this patent document 1, 2 acquires from the automatic ticket gate an identification code of a commutation ticket used when the registrant passes through the passageway, and specifies the registrant having passed through the passageway of the automatic ticket gate from the identification code of the commutation ticket. As stated above, when the registrant takes the specific action (action performed daily), the delivery information is delivered, and therefore, it is not necessary to take a special action for receiving the delivered information.

Besides, an information delivery apparatus for periodically delivering information of English learning to a registrant is also proposed (patent document 3). The information delivery apparatus recited in the patent document 3 is constructed such that character information concerning the learning and audio information are previously registered in a server on the Internet, and the character information concerning the learning and the audio information are delivered to a cellular phone of the registrant as an access destination by electronic mail. The registrant accesses the access destination delivered and acquires the character information concerning the learning and the audio information.

[Patent document 1]

JP-A-8-18523

[Patent document 2]

International Publication No. 02/33609

[Patent document 3]

JP-A-2001-356679

However, in the case of the information delivery apparatus (the information delivery apparatus recited in the patent document 1, 2) for delivering the delivery information to the registrant when the registrant takes the specific action, for example, when he/she passes through the passageway of the automatic ticket gate, unless the registrant does not take the specific action, the delivery information is not delivered to the registrant. Thus, with respect to delivery information which has contents with continuity and is to be delivered to the registrant several times, such as the information concerning English learning or a serial novel, when the registrant did not take the specific action because of some reason (for example, when he/she took a vacation and did not go to the office or school), the delivery information is not delivered to this registrant. Accordingly, the delivery information finally received by this registrant lacks the continuity, and there occurs such a situation that the registrant does not perform the English learning sufficiently, or can not understand the story of the serial novel, and there has been a problem that the service

to the registrant is not good.

Besides, there is also a case where the registrant pays a considerable value for the delivery information to be delivered several times and having the contents with continuity, and in the case like this, the dissatisfaction of the registrant becomes intense, and there is a problem that the trust of the registrant is lost.

SUMMARY OF THE INVENTION

An object of the invention is to provide an information delivery apparatus and an information delivery method, in which delivery information is delivered to a registrant who takes a specific action, and the delivery information is delivered to the registrant who has not taken the specific action until a previously set time, so that the service to the registrant is improved and the trust of the registrant is not lost.

The information delivery apparatus of the invention comprises the following structure in order to solve the above problem.

(1) An information delivery apparatus, comprising:

delivery information storage means for storing identification codes and delivery information which are made to correspond to each other;

delivery destination storage means for storing a delivery destination of the delivery information for each of

the identification codes;

delivery request reception means for receiving a delivery request, containing the identification code, for the delivery information; and

delivery means for reading, when the delivery request reception means receives the delivery request, the delivery information stored in the delivery information storage means and the delivery destination stored in the delivery destination storage means with respect to the identification code contained in this delivery request, and for delivering the delivery information read out this time to the delivery destination, wherein the information delivery apparatus further comprises:

delivery reserved time storage means for storing the identification code and a delivery reserved time of the delivery information which are made to correspond to each other; and

delivered judgment means for judging, with respect to the identification code in which a present time becomes the delivery reserved time stored in the delivery reserved time storage means, whether or not the delivery request reception means has already received the delivery request and the delivery means has delivered the delivery information,

wherein when the delivered judgment means judges that the delivery request reception means does not receive the

delivery request, and the delivery information not delivered by the delivery means exits, the delivery means delivers the undelivered delivery information.

In this structure, when the delivery request reception means receives the delivery request for the delivery information, the delivery means delivers the delivery information to the delivery destination corresponding to the identification code contained in this delivery request. For example, an automatic ticket gate installed at a ticket gate of a station outputs a delivery request containing an identification code of a commutation ticket used by a registrant having passed through a passageway of the automatic ticket gate. The delivery request reception means receives this delivery request.

As an apparatus for outputting a delivery request to be received by the delivery information reception means, it is preferable to use an apparatus capable of detecting a daily action of a registrant, like the automatic ticket gate. The reason is that when the registrant takes the daily action, the delivery information can be received, so that it is not necessary to take a special action to receive the delivery information, and labor is not required.

Besides, the delivered judgment means judges whether or not the delivery information has already been delivered with respect to the identification code in which it becomes the

previously set delivery reserved time, and if the delivery information is not delivered, the delivery means delivers the delivery information to the delivery destination corresponding to this identification code.

By this, the delivery information can also be delivered to the registrant (for example, the registrant who took a vacation and did not pass through the passageway of the automatic ticket gate) on whom the apparatus (the automatic ticket gate or the like) capable of detecting the daily action of the registrant has not outputted the delivery request until the delivery reserved time. Thus, in the case of the delivery information having contents with continuity and to be delivered to the registrant several times, for example, learning information concerning English learning or a serial novel, even when the registrant does not take the specific action because of some reason (for example, the registrant took a vacation and did not go to the office or school), the delivery information having contents with continuity and to be delivered several times can be delivered to the registrant without lacking. By this, the service to the registrant can be improved and the trust of the registrant is not lost.

(2) The delivery information storage means differentiates specific delivery information which is delivered when it is not delivered at the delivery reserved time from normal delivery information which is not delivered

even if it is not delivered at the delivery reserved time and stores them, and

when the delivered judgment means judges that the delivery request reception means does not receive the delivery request, and the specific delivery information not delivered by the delivery means exists, the delivery means delivers the undelivered specific delivery information.

In this structure, the delivery information storage means differentiates the specific delivery information from the normal delivery information for each of the identification codes. With respect to the identification code in which it becomes the previously set delivery reserved time, it is judged whether or not the specific delivery information has already been delivered, and in the case where the judgment result is such that the specific delivery information is not delivered, the delivery means delivers the delivery information to the delivery destination corresponding to this identification code.

Here, the delivery information having contents with continuity and to be delivered several times, such as information concerning English learning or a serial novel, is made the specific delivery information, and an advertisement or a weather report having contents without continuity is made the normal information, so that the delivery information having contents with continuity and to

be delivered several times can be delivered to the registrant without lacking. Besides, since the advertisement of a store near the office or school is unnecessary delivery information for the registrant (the registrant having not passed through the passageway of the automatic ticket gate) who took a vacation and did not go to the office or school, this kind of delivery information is made the normal delivery information, so that wasteful delivery information is not delivered to the registrant, and therefore, the registrant does not feel annoyance, and the service to the registrant can be further improved.

BRIEF DESCRIPTION OF THE DRAWINGS

Fig. 1 illustrates a view showing a structure of an information delivery system to which an information delivery apparatus of an embodiment of the invention is applied.

Fig. 2 illustrates a block diagram showing a structure of the information delivery apparatus of the embodiment of the invention.

Fig. 3 illustrates a view for explaining a structure of a registrant information storage part of the information delivery apparatus of the embodiment.

Fig. 4 illustrates a view for explaining a structure of a delivery information storage part of the information delivery apparatus of the embodiment.

Fig. 5 illustrates a view for explaining a structure of

a delivery reserved time storage part of the information delivery apparatus of the embodiment.

Fig. 6 illustrates a view showing an example of a registration screen of specific delivery information.

Fig. 7 illustrates a flowchart showing an operation of an automatic ticket gate in the information delivery system.

Fig. 8 illustrates a flowchart showing an operation of the information delivery apparatus of the embodiment of the invention.

Fig. 9 illustrates a flowchart showing an information delivery processing of the information delivery apparatus of the embodiment.

Fig. 10 illustrates a flowchart showing a reservation delivery processing of the information delivery apparatus of the embodiment.

DESCRIPTION OF PREFERRED EMBODIMENTS

Hereinafter, an information delivery apparatus of an embodiment of the invention will be described.

Fig. 1 is a view showing a structure of an information delivery system to which the information delivery apparatus of the embodiment of the invention is applied. In Fig. 1, reference numeral 1 denotes the information delivery apparatus of the embodiment of the invention. Reference numeral 2 denotes an automatic ticket gate which makes a delivery request for delivery information to the information

delivery apparatus 1; and 3, a cellular phone to which the delivery information is delivered from the information delivery apparatus 1 via the Internet and which is owned by a registrant 4.

Incidentally, the registrant 4 here is a person who registers delivery of the delivery information to the information delivery apparatus 1, and a user here means a registrant or an unregistered person.

The automatic ticket gate 2 is installed at a ticket gate of a station and is a well-known apparatus for restricting the entrance of a user into the station or the exist thereof from the station. The automatic ticket gate 2 judges whether or not a passenger ticket, for example, a commutation ticket, an ordinary ticket or a prepaid card, inserted into its main body is proper, and when it is judged to be proper, the passing of the user through the passageway is allowed, and when it is judged not to be proper, the passing of the user through the passageway is inhibited. The automatic ticket gate transmits ticket information read out from the passenger ticket inserted into the main body to a host apparatus (not shown) of the station. The host apparatus performs management of passengers getting on and off a train at the station, issuance and management of passenger tickets, such as ordinary tickets and commutation tickets, and the like. In the case where a passenger ticket inserted into the automatic

ticket gate 2 is a commutation ticket and this commutation ticket is valid (in the case where the passing of the user is allowed by the automatic ticket gate), this host apparatus outputs the delivery request to the information delivery apparatus 1. This delivery request contains the identification code of the commutation ticket inserted into the automatic ticket gate 2. The information delivery apparatus 1 of this embodiment specifies an owner of this commutation ticket, that is, the registrant 4 having passed through the passageway of the automatic ticket gate 2, and delivers the delivery information to the registrant 4 specified here.

Fig. 2 is a block diagram showing a structure of the information delivery apparatus of the embodiment of the invention. The information delivery apparatus 1 includes a control part 11 for controlling the operation of the main body, a clock 12 for clocking the present time, a delivery request reception part 13 for receiving the delivery request for delivery information outputted from the automatic ticket gate 2, a registrant information storage part 14 for storing attribute information, such as an interest, a taste, an age and a gender, of the registrant 4, and a delivery destination of delivery information (here, a mail address given to the cellular phone 3 owned by the registrant 4), which are made to correspond to an identification code of the registrant 4,

a delivery information storage part 15 for storing the delivery information to be delivered to this registrant 4, which is made to correspond to the identification code of the registrant 4, a delivery reserved time storage part 16 for storing a delivery reserved time at which the delivery information is delivered, which is made to correspond to the identification code of the registrant 4, and a delivery part 17 for delivering the delivery information to the registrant 4.

As shown in Fig. 3, the attribute information, such as the interest, the taste, the age and the gender, of this registrant 4 and the delivery destination (here, the mail address given to the cellular phone 3 owned by the registrant 4) of the delivery information, which are made to correspond to the identification code (identification code of the commutation ticket owned by this registrant) for identifying the registrant 4, are stored in the registrant information storage part 14. This registrant information storage part 14 has delivery destination storage means of the invention here.

The delivery information made to correspond to the identification code of the registrant and to be delivered is stored in the delivery information storage part 15. In general, the registrant 4 using the commutation ticket for going to the office or school travels between the home and the office or school a day. Thus, the registrant 4 passes through

passageways of the automatic ticket gates 2 installed at stations four times a day. Specifically, the four times are as follows:

(1) at the time of entrance into a station near the home,
(2) at the time of exit from a station near the office or school,

(3) at the time of entrance into the station near the office or school, and

(4) at the time of exit from the station near the home,
and the above (1) and (2) indicate the times of going to the office or school, and the above (3) and (4) indicate the times of going home.

As shown in Fig. 4, the delivery information storage part 15 is provided with five storage areas (area A to area E) for storing the delivery information for each registrant 4. The area B is an area for storing the delivery information to be delivered at the time of exiting from the station near the office or school, the area C is an area for storing the delivery information to be delivered at the time of entering the station near the office or school, the area D is an area for storing the delivery information to be delivered at the time of exiting from the station near the home, and the area E is an area for storing the specific delivery information having contents with continuity and to be delivered to the registrant 4 several times.

This specific delivery information is, for example, delivery information concerning 40 pieces of English learning in total, or delivery information concerning a serial novel appearing 10 times in total. Besides, in the case where the registrant 4 performs registration not to desire the delivery of delivery information with respect to at least one of the above (1) to (4), the delivery information is not stored in the pertinent area. The normal delivery information in which the contents do not continuity is stored in the area A to the area D. The normal delivery information is an advertisement of a store, a weather report or the like.

The delivery information stored in the delivery information storage part 15 is updated everyday. For example, at the midnight after the last train when there is no user passing through the passageway of the automatic ticket gate 2, the delivery information stored in the delivery information storage part 15 (the delivery information stored in the area A to the area E) is updated for each registrant 4. Besides, the specific delivery information is delivered to the registrant 4 if it has not been delivered at the time when the registrant 4 passes through the passageway of the automatic ticket gate 2.

Incidentally, the information delivery apparatus 1 acquires the delivery information (specific delivery information and normal delivery information) to be delivered

to the registrant 4 by using the Internet or the like.

Besides, as shown in Fig. 5, the delivery reserved time storage part 16 stores identification codes for each delivery reserved time. Fig. 5 shows an example in which the delivery reserved time of the registrants 4 having the identification codes of "12345678", "132468954", "100254687", "245631207"... is 9:00, the delivery reserved time of the registrants 4 having the identification codes of "147258369", "289645723", "6978753625", "485972465"... is 9:15, and the delivery reserved time of the registrants 4 having the identification codes of "147259000", "143258920", "181865423", "345261872"... is 9:30. The delivery reserved time is the time set by the registrant 4, and here, the example is shown in which the delivery reserved time can be set in a unit of 15 minutes.

Fig. 6 shows a registration screen on which the registrant registers the delivery of the delivery information (specific delivery information here) of 40 pieces of English learning in total to the information delivery apparatus 1. This registration can be performed by an apparatus which can be connected to the Internet, such as the cellular phone 3 owned by the registrant 4 or a personal computer (not shown). The registration screen shown in Fig. 6 is a screen downloaded from a specific homepage, the registrant 4 inputs the identification code of his/her own commutation ticket and the delivery reserved time, and presses a registration button,

so that the information (the identification code, the delivery reserved time) inputted by the registrant 4 this time is notified to the information delivery apparatus 1 through a server apparatus on the Internet.

Incidentally, the specific delivery information may be charged for or free of charge. In the chargeable case, electronic money or the like is used for the adjustment of the value. Besides, setting of the delivery reserved time may be performed at the time of, for example, registration of the attribute information or the like of the registrant 4 to the information delivery apparatus 1, may be performed through direct access of the registrant to the information delivery apparatus 1, or may be performed by a method other than these.

The general registrant 4 sets the delivery reserved time to a time later than a time when he/she enters the station near the home at the time of going to the office or school. By this, it is possible to prevent the specific delivery information from being delivered to the registrant 4 by the information delivery apparatus 1 before passing through the automatic ticket gate 2 at the normal time of going to the office or school. When he/she does not pass through the automatic ticket gate 2 until the delivery reserved time, it is judged that the registrant 4 takes a vacation on this day and does not go to the office or school, and the information delivery apparatus 1 delivers the specific delivery

information to the registrant 4.

Hereinafter, the operation of the information delivery system to which the information delivery apparatus 1 of this embodiment is applied will be described. Fig. 7 is a flowchart showing the operation of the automatic ticket gate. When a passenger ticket is inserted into the main body by the registrant 4 (s1), on the basis of the ticket information recorded on this passenger ticket, the automatic ticket gate 2 judges whether or not the passing of the registrant 4 through the passageway is allowed (s2). Here, when it is judged that the passing of the registrant 4 is not allowed, a door provided in the automatic ticket gate 2 is closed, an error processing to prohibit the passing of the registrant 4 is performed (s5), and this processing is ended.

When judging at s2 that the passing of the registrant 4 is allowed, the automatic ticket gate 2 opens the door of the automatic ticket gate 2, allows the registrant 4 to pass through, and judges whether or not the passenger ticket inserted into the main body is the commutation ticket (s3). Here, when it is judged to be the commutation ticket, a delivery request containing identification information read out from this commutation ticket, a station code indicating the station where this automatic ticket gate 2 is installed, and entrance/exit information indicating whether the registrant 4 enters the station or exits from the station is

transmitted to the information delivery apparatus 1 (s4). On the contrary, if the inserted passenger ticket is not the commutation ticket, a return to s1 is performed without performing the processing of s5.

Incidentally, in the case where the passing of the registrant 4 is inhibited, the automatic ticket gate 2 always releases the passenger ticket inserted into the main body, however, in the case where the passing of the registrant 4 is allowed, the passenger ticket inserted into the main body by this registrant 4 is collected in some cases (the passenger ticket is released as the need arises).

Besides, the processings of s3 and s4 shown in Fig. 7 are carried out in the host apparatus of the station not shown actually, and the automatic ticket gate 2 only transmits the passage information of the user to the host apparatus.

Next, the operation of the information delivery apparatus 1 will be described. Fig. 8 is a flowchart showing the operation of the information delivery apparatus. The information delivery apparatus 1 receives the delivery request in the delivery request reception part 13, or waits until the present time becomes the delivery reserved time set in a unit of 15 minutes (s11, s12). When receiving the delivery request at s11, the information delivery apparatus 1 carries out an information delivery processing shown in Fig. 9 (s13). Besides, when it is detected at s12 that the present time

becomes the delivery reserved time, a reservation delivery processing shown in Fig. 10 is carried out (s14). This reservation delivery processing is carried out every 15 minutes as the setting interval of the delivery reserved time.

First, the information delivery processing of s13 will be described with reference to Fig. 9.

When receiving the delivery request in the delivery request reception part 13, the information delivery apparatus 1 uses the identification code of the commutation ticket contained in this delivery request to judge whether or not the user having passed through the passageway of the automatic ticket gate 2 is the registrant 4 (s21). Specifically, it is judged whether or not the identification code of the commutation ticket contained in this delivery request is registered in the registrant information storage part 14. When judging at s21 that he/she is not the registrant 4, the information delivery apparatus 1 ends the processing.

On the contrary, when he/she is judged to be the registrant 4, the delivery destination (mail address) of the delivery information is read out from the registrant information storage part 14 (s22). This delivery destination corresponds to the identification code of the commutation ticket contained in this delivery request. Besides, the identification code contained in the delivery request received this time is used to search the delivery information

storage part 15, and the existence of stored normal delivery information concerning the pertinent registrant 4 is confirmed (s23), and if the normal delivery information exists, this normal delivery information is read out (s24).

Incidentally, at s23, the existence of the normal delivery information corresponding to the action of the registrant 4 (whether he/she enters the station or exits from the station, whether the station is near the home or near the office or school) is judged.

The information delivery apparatus 1 next judges the existence of undelivered specific delivery information on this registrant 4 (s25). At s25, it is judged whether not the undelivered delivery information is stored in the area E of the delivery information storage part 15. Here, when it is judged that the undelivered specific delivery information exists, this undelivered specific delivery information is read out (s26). The information delivery apparatus 1 delivers the delivery information read out at s24, s26 to the delivery destination read out at s22 by electronic mail (s27). The specific delivery information and the normal delivery information can also be delivered as, for example, an attached file.

The electronic mail delivered from the information delivery apparatus 1 is delivered through the Internet to the cellular phone 3 of the registrant 4 having passed through

the passageway of the automatic ticket gate 2. The registrant 4 can confirm the delivery information delivered from the information delivery apparatus 1 by the cellular phone 3.

Then, the information delivery apparatus 1 deletes the delivered delivery information from the delivery information storage part 15 (s28). Alternatively, instead of deleting the delivery information, that it has already been transmitted may be recorded.

Next, the reservation delivery processing of s14 will be described with reference to Fig. 10. When the time clocked by the clock 12 becomes the delivery reserved time set in a unit of 15 minutes, the information delivery apparatus 1 carries out this delivery reservation processing. That is, this delivery reservation processing is carried out every 15 minutes. The information delivery apparatus 1 reads out the identification code of the registrant 4 on whom the present time becomes the delivery reserved time from the delivery reserved time storage part 16 (s31), and judges whether or not the undelivered specific delivery information is stored in the delivery information storage part 15 about the registrant 4 whose identification code is read out at s31 (s32).

As described above, the general registrant 4 sets the delivery reserved time to the time later than the time when he/she enters the station near the home at the time of going

to the office or school. Accordingly, there is a high possibility that the registrant 4 on whom the undelivered specific delivery information exists in the delivery information storage part 15 is the registrant 4 who takes a vacation and does not go to the office or school.

When judging at s32 that the undelivered specific delivery information exists, the information delivery apparatus 1 reads out the specific delivery information (s33), and reads out the delivery destination (mail address) of the pertinent registrant 4 from the registrant information storage part 14 (s34). The information delivery apparatus 1 delivers the specific delivery information read out at s33 to the delivery destination read out at s34 (s35). Then, the information delivery apparatus 1 deletes the delivered delivery information from the delivery information storage part 15 (s36). When delivering the specific delivery information at s35 and deleting the delivered delivery information at s36, the information delivery apparatus 1 judges whether or not the processings of s31 to s36 are performed about all the registrants 4 on whom it becomes the delivery reserved time lately (s37), and if the unprocessed registrant 4 exists, the same processing is performed on the registrant 4.

Incidentally, about the registrant 4 having passed through the passageway of the automatic ticket gate 1 before

the delivery reserved time, it is judged at s32 that the undelivered specific delivery information does not exist. The processings of s32 to s36 are not performed about this registrant 4.

As stated above, the information delivery apparatus 1 of this embodiment judges whether or not the specific delivery information has not been delivered about the registrant 4 on whom it becomes the delivery reserved time, and delivers this specific delivery information if it has not been delivered, and therefore, the specific delivery information having contents with continuity and to be delivered several times can also be delivered certainly to the registrant 4 who takes a vacation and does not go to the office or school. For example, in the case where the specific delivery information is information of 40 pieces of English learning in total, the registrant 4 can acquire all the information of the English learning without lacking, and the English learning can be sufficiently performed. Accordingly, the service to the registrant 4 can be improved, and the trust of the registrant 4 is not lowered.

Besides, since the undelivered normal delivery information is not delivered to the registrant 4 even at the delivery reserved time, the wasteful delivery information is not delivered to the registrant 4, and it is possible to prevent the registrant from feeling annoyance. This can

further improve the service to the registrant.

Incidentally, in the above embodiment, although the automatic ticket gate 2 transmits the delivery request to the information delivery apparatus 1, in an information delivery system in which an apparatus other than the automatic ticket gate 2 outputs the delivery request to the information delivery apparatus 1, the information delivery apparatus of the invention can be applied. In this case, it is preferable that the apparatus for transmitting the delivery request is an apparatus capable of detecting a daily action of the registrant 4.

In the above embodiment, the description has been made on the assumption that the registrant information storage part 14, the delivery information storage part 15 and the delivery reservation information storage part 1b are respectively independently provided. In these three storage parts, since the identification code is common, even if the information stored in these three storage parts is stored in one storage part with reference to the identification code, a change in function does not occur.

As stated above, according to the invention, with respect to the information having contents with continuity and to be delivered several times, since all the information can be delivered to the registrant without lacking, the service to the registrant can be improved, and the trust of

the registrant is not lowered.

What is claimed is:

1. An information delivery apparatus, comprising:
delivery information storage means for storing identification codes and delivery information which are made to correspond to each other;

delivery destination storage means for storing a delivery destination of the delivery information for each of the identification codes;

delivery request reception means for receiving a delivery request, containing the identification code, for the delivery information; and

delivery means for reading, when the delivery request reception means receives the delivery request, the delivery information stored in the delivery information storage means and the delivery destination stored in the delivery destination storage means with respect to the identification code contained in this delivery request, and for delivering the delivery information read out this time to the delivery destination, wherein the information delivery apparatus further comprises:

delivery reserved time storage means for storing the identification code and a delivery reserved time of the delivery information which are made to correspond to each other; and

delivered judgment means for judging, with respect to

the identification code in which a present time becomes the delivery reserved time stored in the delivery reserved time storage means, whether or not the delivery request reception means has already received the delivery request and the delivery means has delivered the delivery information,

wherein when the delivered judgment means judges that the delivery request reception means does not receive the delivery request, and the delivery information not delivered by the delivery means exists, the delivery means delivers the undelivered delivery information.

2. The information delivery apparatus as set forth in claim 1, wherein

the delivery information storage means differentiates specific delivery information which is delivered when it is not delivered at the delivery reserved time from normal delivery information which is not delivered even if it is not delivered at the delivery reserved time and stores them, and

when the delivered judgment means judges that the delivery request reception means does not receive the delivery request, and the specific delivery information not delivered by the delivery means exists, the delivery means delivers the undelivered specific delivery information.

3. An information delivery method in which identification codes and delivery information are made to correspond to each other and are stored in delivery

information storage means, a delivery destination of the delivery information is stored for each of the identification codes into delivery destination storage means, and when a delivery request, containing the identification code, for the delivery information is received, the delivery information stored in the delivery information storage means and the delivery destination stored in the delivery destination storage means are read out with respect to the identification code contained in this delivery request, and the delivery information read out this time is delivered to the delivery destination, wherein

the identification code and a delivery reserved time of the delivery information are made to correspond to each other and are stored in delivery reserved time storage means, and with respect to the identification code in which a present time becomes the delivery reserved time stored in the delivery reserved time storage means, it is judged whether or not the delivery request has already been received and the delivery information has been delivered, and in this judgment, when it is judged that the delivery request is not received and the delivery information not delivered exists, the undelivered delivery information is delivered.