

MOBILE DEVICE METHOD AND SYSTEM

Field of the Invention

- 5 The invention relates to the use of a mobile device to scan originating media so as to deliver customer directed content to the device.

Background

- 10 To develop the marketing mix, customer directed content such as promotional material, needs to have a better fit with the consumer. Passive advertising such as hoardings, billboards etc are insufficient to engage the consumer or provide the information that an individual consumer is seeking.
- 15 Segmentation requires specific content that will be of interest to the targeted consumer, however this is generally only achieved through retail environments and don't extend to wider the distribution of promotional engagement.

Micro segmentation outside the retail environment has traditionally been uneconomic
20 and hence passive advertising is designed to appeal to as broad a range of people as possible. Consequently, the general public are not engaged and funds put towards such advertising are generally wasted as it neither deals with a specific market segment nor cannot engage with that target consumer.

Summary of Invention

In a first aspect the invention provides a system for delivering customer directed content to a user of a mobile device, the system including: an originating medium having a target code positioned thereon; said mobile device including a camera arranged to scan the target code and a processor arranged to identify the target code and reading information therefrom; said processor also arranged to communicate with a data source associated with said target code information to retrieve the customer directed content; said processor further arranged to display the customer directed content on a display of the mobile device.

In a second aspect the invention provides a method for delivering customer directed content to a user of a mobile device, said device including a processor, display and camera, the method including the steps of: scanning a trigger code on an originating medium using said camera; the processor identifying the trigger code and reading information from said trigger code; using the trigger code information, the processor communicating with a data source associated with said trigger code in which the customer directed content is located, and so receiving said customer directed content; the processor then delivering said customer directed content to the display.

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The invention provides a means of delivering a wide range of consumer engagement points outside the retail outlet at a cost no different than passive advertising. By allowing a consumer to interact with the originating media, data either embedded within

an app on a mobile device or accessible online connects the consumer with the information he requires permitting micro segmentation through the broad distribution of engagement points. Further, the invention may provide access to an augmented reality (AR) environment whereby the consumer is not only receiving the content in which he is interested but is engaged by that content motivating the consumer to want to engage on a regular basis.

In so doing, the invention provides a three way interaction between the customer, the vendor and the system manager managing verification control. The system manager may maintain the distribution and control of content and vouchers, as well as receiving and distributing statistical and demographic data collected from customers

Examples of the customer directed content may include pdf or jpeg files, slide shows, technical specifications or 2-D/3-D models of a particular product. In this way the consumer receives very specific textual or graphic representations of a particular product or service he may be interested in. Alternatively, the customer directed content may be educational or anticipatory such as instructional videos or previews of upcoming movies. Even more engaging, customer directed content may include interactive applications such as live chats, live helplines etc. Even further, the customer directed content may include games such as beta related games or “light” games, having reduced functionality, to engage the customer and introduce him to the end product. This may, for instance, be very useful for advertisements at bus stops and train stations where a

customer may be waiting in a range of 5 to 10 minutes and so has time to become engage without requiring deep concentration.

The originating media may be in the form of billboards and advertisements having a
5 trigger code placed on the advertisement. The trigger code may be an augmented reality
marker sufficient to trigger an app on the mobile device. In addition to triggering an
application, the customer's device may also transfer data (say up to 3KB) to the mobile
device to provide additional options to the customer including providing a URL or time
and location information for the retailer to use for their own purposes. For instance, the
10 data may include a record of engagement with the advertisement. This may be used for
measuring effectiveness of the location of the advertising or effectiveness of the content
being viewed. It may further provide a means for billing the retailer by a separate
organisation managing the advertisements under an arrangement where the advertising
organisation charges per customer engagement.

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Communication between the processor and the source of the consumer directed content
will depend on the location. The device may further include a communication device
for receiving online content. Alternatively, the device may include a memory having
the data stored therein with the processor having direct access.

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The customer directed content may then be delivered depending upon the required
trigger code. If the originating media triggers the availability of several forms, a menu
may be presented to the customer for selection and thus further segmenting the market

place by delivering precisely the content most interesting to the customer. Alternatively, the originating media may have a plurality of trigger codes such as a plurality of markers on the advertisement with the customers selecting the marker associated with the most engaging or relevant to his interest. This further represents micro segmenting the market place by providing the customer a self-selection option for said content.

A further application may include advertising space for industry or exhibition directories. Both publications have the reputation for not providing sufficient return on investment to the advertiser with readers glazing over advertisements and heading directly for conventional content. In one embodiment of the present invention, an advertisement within such a directory may include a trigger code which may provide customer directed content including instructional videos educating the customer on the use of the product or service, short term promotional discount or gifts or in an AR environment overlay the advertisement with a 3-D model of a particular product which may highlight features in a more engaging manner than a mere 2 dimensional photograph. The inclusion of an AR environment may further enhance and emphasize an advertisement within such a directory providing better customer engagement.

A further advantage of such an application may include cost savings in not having to produce and print large volumes of brochures for such an exhibition. Such brochures may typically be thrown away by the viewing patrons without having sufficient interest or engagement to read the brochure. As an alternative, such patrons may be directed to the exhibition directory to obtain the information they want which may also allow the

exhibitor to update the information provided through the advertisement by modifying online content which is accessed by the system according to the present invention.

In a further application, a restaurant may provide trigger codes on menus and displays
5 outside their restaurant. A potential customer need only scan the trigger code in order to receive not merely menu options and a wine list, but highly engaging images of the food in an AR environment. Again, this may provide an alternative for the consumer to select a restaurant and may render obsolete unpleasant touts typical of areas having high concentrations of restaurants.

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In a still further application, wedding invitations and “thank you” cards may include trigger codes for the wedding couple to convey photographs and best wishes to their guests. For an invitation, the customer directed content may be details of how the couple met. On wedding menus having a trigger code, the customer directed content
15 may include a continuously updated online streaming of photographs of the “happy day” as well as photographs taken during the ceremony and reception. When the wedding couple sends “thank you” cards, similar trigger codes may provide photographs and GIF’s of the wedding and act as a permanent keepsake for the guests. In one particular embodiment, a GIF of the “wedding waltz” may be presented in an AR
20 environment on the “thank you” card.

In a still further embodiment, banners and advertising signs for local attractions located at airports, train stations and bus terminals may be directed to tourists. At such tourists

portals, a local tourism board a regularly updated supply of interesting places to visit, hotels to stay at, upcoming festivals and other attractions which may be seasonal and so encouraging tourists to regularly seek out such engagement.

- 5 In a still further application, a trigger code may be located on a business card providing access to portals such as LinkedIn as well as providing a photograph of the business card owner to provide a form of recollection for the recipient/user many weeks or months after the initial meeting.

10 **Brief Description of Drawings**

It will be convenient to further describe the present invention with respect to the accompanying drawings that illustrate possible arrangements of the invention. Other arrangements of the invention are possible and consequently, the particularity of the
15 accompanying drawings is not to be understood as superseding the generality of the preceding description of the invention.

Figure 1 is a schematic view of a system according to one embodiment of the present invention;

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Figure 2 is a schematic view of a mobile device progressively displaying content following the scanning of a trigger code according to a further embodiment of the present invention;

Figure 3 is a flow chart for the accessing of customer directed content according to one embodiment of the present invention;

- 5 Figures 4A to 4D are screen shots of an app n a mobile device accessing of customer directed content according to a further embodiment of the present invention.

Detailed Description

- 10 Figure 1 shows a schematic view of the system according to the present invention.

A user, who may be a potential customer, may identify originating media 10 as being suitable for receiving customer directed content 45. The originating media 10 may be a range of different media including billboards, news print advertisements, business cards,
15 industrial and/or exhibition directories, tourist brochures or trade magazines and even wedding invitations. What identifies originating media as being suitable for the application will be the prominence of a trigger code on the media such as an AR marker
25 The prominence of the trigger code may be text or shape of the trigger code on the media. For full effect there will preferably be a short description bringing the attention
20 of the trigger code to the consumer.

The user uses the camera of his mobile device 13 to scan 14 the trigger code. The device processor then communicates with a data source 30. The data source may be

available online 35 or stored within the memory 40 of the device, which may depend upon the nature of the trigger code 15. For instance, if the trigger code 15 is an AR marker 25, an application on the device may identify the marker as corresponding to data stored within the device and so accessing 28 that data corresponding to the particular marker which in turn corresponds to the specific originating media. .

Alternatively, the AR marker 25 in activating the application on the device may permit the processor to communicate 26 online based upon a URL address within the memory corresponding to the AR marker associated with the originating media.

10 The data received 42 from the data source 30 is designed to be relevant to the customer base and so provide micro segmentation allowing the consumer to access customer directed content 45 that is of particular interest to him. This may be in the form of textual information or images such as in a pdf form 50. Alternatively, the customer directed content 45 may be in the form of images 55 (jpg, gif etc) or video 60, which

15 may be instructional as to the merits of the product or service or any other such content providing the required information and engagement of the consumer. Alternatively, the arrangement may be in the form of augmented reality, whereby an AR overlay 62 is placed over the advertisement so as to interact with the two dimensional form of the originating media 10. Such an AR overlay may be a 3-D model or GIF, providing

20 engagement and informational content to the customer.

Figure 2 shows an embodiment of the practical interaction of the customer with the originating media. Here the customer on identifying a suitable originating media, in this

case a tourist brochure 75. The customer engages 65 the app on his device and using his device 85 scans a target code 80, in this case a marker on the brochure 75. The processor of the device 85 recognizes 90 the scan target code 80 and in this case offers 95 a range of customer directed content to the customer for their selection. In this case 5 the offer 95 comes in the form of a menu of videos 100 or a pdf file 105 depending upon the preference of the customer in accessing the various media.

Some or all of the above presented embodiments may comprise electronic components that implement one or more components of the system of the mobile device.

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Still another embodiment may include computer-readable medium including processor-executable instructions arranged to apply the steps discussed with reference to the embodiments. The computer-readable media may include, but not limited to, computer-readable storage media involving a mobile device, such as a memory semiconductor, a 15 platter of a hard disk drive, a flash memory device, or a magnetic or optical disc, encoding a set of computer-readable instructions that, when executed by a processor of a device, cause the device to implement the techniques presented herein. Such computer-readable media may also include (as a class of technologies that are distinct from computer-readable storage media) various types of communications media, such 20 as a signal that may be propagated through various physical phenomena (e.g., an electromagnetic signal, a sound wave signal, or an optical signal) and in various wired scenarios (e.g., via an Ethernet or fibre optic cable) and/or wireless scenarios (e.g., a wireless local area network (WLAN) such as WiFi, a personal area network (PAN) such

as Bluetooth, or a cellular or radio network), and which encodes a set of computer-readable instructions that, when executed by a processor of a device, cause the device to implement the embodiments as discussed.

5 Figures 3 and 4A to 4D illustrate two embodiments of the present invention.

Considering the embodiment of Figure 3, the process that allows the user to gain customer directed content involves three distinct steps, being the customer engagement 107 followed by the brand engagement 115 and access to content 120.

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In detail, as shown in one embodiment, a user identifies 125 originating medium such as a printed advertisement or street sign having a trigger code such as an AR marker. The user then connects to the app 130 using 135 the camera of the mobile device to engage with the trigger code. The user has the option of connecting through social media 145 such as Facebook or alternatively by opting for a verification process whereby the user 15 is prompted to send the number of the mobile device 140 to an external verification site whereupon he will receive 150 a one-time password (OTP). By entering the OTP 155 into the app the mobile device is then verified so as to link the user of the mobile device 160 with the system.

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On entering the brand engagement phase 115 the captured trigger code 165 then verifies whether the brand associated with that trigger code 170 corresponds to an update of subscribed brands 175. As a consequence, content associated with that brand is

unlocked and made available to the user. The user may receive 185 vouchers associated with that brand including redemption options via a code 190.

Alternatively, or at the same time, the user is connected 195 to a page corresponding to the brand made available via the application. Through this page, various options for engagement with the brand 200 are then provided to the user.

Figures 4A to 4D provide a further embodiment of how the system may be utilised.

Having connected to the app, the user is presented with a splash page 205 whilst loading to the home page providing connection details 210. Two avenues for verified customer engagement are provided, being either a Facebook connection or verification of the mobile phone. A third option to proceed as a “guest” may also be provided, and so being anonymous to the system.

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In the case of mobile phone verification, the user is provided with a SMS verification page 215 whereby he can submit the number of the mobile device to an external verification site. The verification site, which may be managed by a system manager, then returns with the verification code via sms.

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On receiving the SMS with the verification code he then enters the 4-digit code being a one-time password into the app in order to unlock content 220. The application then consults a database to ensure that the brand for which the user seeks engagement is fully

subscribed before providing the brand or list of brands for which the user may wish to engage 225. On selecting the brand, the user/customer is presented with a menu 230 whereby he can continue to the brand page or alternatively seek what vouchers may be available as a result of proceeding thus far or selecting a certain brand. Vouchers can, 5 of course, also be accessed through the brand homepage. Options to connect to the application manager or exit the application are also provided.

The application provides brand pages dedicated to each brand and maybe in a number of different orientations 235, 240. Typically, the logo of the brand will be provided 10 together with options for engagement including linking to the webpage, sending an email, or a direct call. Options may further include 240Facebook, twitter or other such social media to allow the user to communicate that he is accessing the brand's page and that he is receiving promotional vouchers as a result.

15 Content may be provided in a variety of different forms such as pdf, video, text or images depending on the intended use by the user. Options to unlock further content by assessing the AR camera may also be provided.

With reference to the other alternative engagement formats, on engaging facebook or 20 twitter, standard messages may be posted on the user's page such as "*I have unlocked [brand name] content on ARKeep app*".

On selecting the means of receiving the content one option may include the user seeking content to be emailed. To this end, an email page 245 may be provided whereby the user can include one or more email addresses.

- 5 On selecting availability of vouchers, the user may be provided with a further voucher list 250 that is compiled from available valid vouchers associated with the selected brands and/or associated with the location for which the user has captured the trigger code. Information related to the vouchers may also be provided such as those which are expiring shortly, most popular, or vouchers the brand wishes to promote, may determine
- 10 the rank and position of the various vouchers. On selecting a voucher, the system or app manager either contemporaneously or prior to the transaction, communicates the voucher redemption code to the vendor. When the user attends the shop where the voucher is to be redeemed, he is given the redemption code by the vendor for entering into the app (or is entered directly by the vendor into the user's mobile device. The app
- 15 then releases the voucher allowing the user to redeem the voucher and the vendor to honour the voucher.

In this way, the system/app manager is able to:

- 20 i) Control whether the vendor is subscribed;
- ii) Track actual user use of the app and brand "take up rates";;
- iii) Track actual voucher redemption.

Thus, the system/app manager can determine actual “take up rates” for the subscribed brand, to demonstrate the benefit of subscription to the vendor and charge accordingly. This provides a superior measure of user awareness and “take up rates”, as compared to online marketing which is measured by user “clicks” only.

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Further, the user is prevented from using the voucher again, unless specifically allowed by the vendor, giving security to the vendor. On redemption of the voucher, the voucher may then be blocked from being sent to that particular user.

CLAIMS

1. A system for delivering customer directed content to a user of a mobile device,
the system including:
5 an originating medium having a target code positioned thereon;
said mobile device including a camera arranged to scan the target code and a
processor arranged to identify the target code and reading information therefrom;
said processor also arranged to communicate with a data source associated with
said target code information to retrieve the customer directed content;
10 said processor further arranged to display the customer directed content on a
display of the mobile device.
2. The system according to claim 1, wherein the originating medium includes a
printed advertisement.
- 15 3. The system according to claim 1 or 2, wherein the trigger code includes an
augmented reality marker.
4. The system according to any one of claims 1 to 3, wherein the data source is
20 communicated via a LAN, WAN or internet.
5. The system according to any one of claims 1 to 3, wherein the data source is
located within a memory of the mobile device.

6. The system according to any one of claims 1 to 5, wherein the customer directed content is displayed as an AR overlay of a real time image of the originating medium.
- 5 7. The system according to any one of claims 1 to 6, wherein the customer directed content includes any one or a combination of a pdf file, slide show or video.
8. A method for delivering customer directed content to a user of a mobile device, said device including a processor, display and camera, the method including the steps of:
10 scanning a trigger code on an originating medium using said camera;
the processor identifying the trigger code and reading information from said trigger code;
using the trigger code information, the processor communicating with a data source associated with said trigger code in which the customer directed content is located, and so receiving said customer directed content;
15 the processor then delivering said customer directed content to the display.
9. The method according to claim 8, including the steps, after the scanning step, of:
20 sending a mobile telephone number to an external verification site;
receiving a password via sms from the verification site;
entering the password into the app, and so;
unlocking access to the data source.

10. The method according to claim 8 or 9, wherein the delivering step includes:

accessing a brand page associated with the originating media;

selecting a communication means linked to said brand page, and;

requesting specific customer directed content through said communication

5 means, and;

receiving said content.

11. The method according to claim 10, further including the steps of:

displaying redeemable vouchers to the user;

10 a system manager communicating a redemption code to the vendor, then;

the vendor communicating the redemption code to the user for insertion into the
mobile device and consequently releasing the voucher for redemption by the
vendor.

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