One of the early claims of the internet was the promise of mass personalization of products, news and services. Personalization of marketing was also inevitable, although perhaps not as widely discussed. Fast forward to today, and we all receive personalized marketing messages. Marketing automation systems like Hubspot and Marketo deliver customized marketing messages via email. Advertising systems like Google AdWords deliver customized messaging via web pages and through apps that call various advertising APIs. Applications from stores, brands and venues deliver personalized product recommendations, screen layouts, sale notifications and other tailored content based on back end personalization engines from vendors like DynamicYield, EverGage, Certona and Rich Relevance.

When was the last time you were looking at a product on one web site, or in an app, and then saw an ad for it on another web site or in a different app. These are examples of customized messaging, and while they may seem a bit intrusive and repetitive at times, there should be no doubt that they are very effective at putting relevant and compelling purchase options in front of potential buyers at key points in the shopping and decision-making process.

Viewed at the highest level, there are two key components needed to deliver tailored messages to the target recipients. This is true whether the recipient is at home, at work, traveling or at the point of purchase.

The first component is a system to determine what message to deliver. This can result in personalized messaging based on a specific individual profile or customized messaging based on group characteristics.

In the case of individual profiling, a personalization engine tracks the recipient’s activities to determine their areas of interest. This tracking primarily takes place online, where the system can monitor which web sites they visit, which products they consider, what they ultimately purchase, and other activities that are used to develop a personalized profile that tracks their interest over time. With this information available, the personalization engine can determine which marketing messages to deliver to the user to have the greatest likelihood of a positive outcome for the advertiser. This outcome might be directing the user to visit a web site, read about a product, or ultimately compel them to make a purchase decision.

While a personalized profile can be used to determine the most relevant content, it is not always possible or advisable to provide such precise messaging. Richard Ventura, Vice President of Strategy at NEC Display Solutions of America and Chairman of the Digital Signage Federation cautions that privacy laws restrict such profiling in some jurisdictions without user opt-in. In other cases, laws may not exist, but guidelines do. A good example of this is a code of conduct published on June 15, 2016 by the U.S. Department of Commerce’s National Telecommunications and Information Administration (NTIA). Even in areas where profiling is not legally restricted, it can still alienate users by making them feel as if their privacy has been violated. In these cases, the less intrusive method of customized messaging can be used.

If the user elects to opt-in, they can be provided with messaging specifically tailored to their cumulative individual profile. This has the potential to provide the user with the greatest value, but the system provider must earn the customer’s trust in order to convince them to opt into participation.

This usually requires the system operator to offer the user some type of compelling value in exchange for their participation. This might consist of automatic discounts, loyalty programs, or exclusive or early access to designated promotions.

When personalized messaging is not available, customized messaging can be based on combinations of image detection and contextual information. Facial detection, which is less intrusive than facial identification, can be used to determine audience characteristics such as age, gender and ethnic background. This information can be used to predict possible areas of interest to the individuals within site of the camera. Contextual information like time of day, day of week, current weather and time of year can be used to refine these predic-
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The second component of the system is a method for delivering the customized or personalized message to the intended recipient. Today, the delivery system for customized or personalized messaging is typically email, web pages or apps. Email delivery is what we often refer to as spam. Whether you like it or not, in many cases these emails are highly tuned to the shopper’s behavior patterns and interests. In addition to email, we receive customized ads on various web sites and in apps that connect to the personalization engines.

In traditional personalized and customized messaging, the delivery component is a device known to be in the possession of the intended recipient. This device is typically a computer, tablet or smartphone. For digital signage, there may be an additional option to deliver the message to a device that is not in their possession, but in their proximity. This requires a mechanism for identifying their location with adequate precision, determining the most proximate delivery device, and delivering the intended message before they move on to a new location.

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Another example of an innovative customized messaging system comes from Beabloo. Their system consists of displays, cameras, microphones and speakers. The artificial intelligence back end monitors the cameras for approaching prospects. Based on facial detection, it can display promotional messaging and invite the user to speak into the microphone. If the user elects to engage in conversation, the system will listen through the microphone and talk through the speakers, using its AI back end to engage the user in meaningful dialogue. The objective of the system is to help the shopper have a good journey through the store, resulting in greater customer satisfaction and increased purchase totals.

Customized messaging can be delivered based solely on facial detection and need not be reliant on devices in the possession of the user. Conversely, personalized messaging will usually be dependent on the user’s phone or tablet. An app installed on those devices will identify the particular user, verify that they have opted into the identification and personalization capabilities of the system, and communicate with the personalization engine and to deliver the optimum messaging.

Once the user is identified, their location must also be ascertained. This makes it possible to deliver messaging that is relevant to the specific area in which they are located within the store or venue. Location determination is often determined by a series of low energy Bluetooth beacons that are distributed throughout the facility. Originally made popular as Apple’s iBeacon technology, these products are now available from a variety of vendors and work with iOS and Android devices. The user must install an app on these devices that will monitor the relative strengths of these beacons and use that information to triangulate to a specific coordinate with the premises. This capability is usually embedded in loyalty apps developed and distributed by the retailer or venue operator. The app will work with the operators back end to determine the user’s exact location in the store, typically within a few feet. With the location determined, the system will be able to deliver messaging that is tailored to that user at that time at that specific location in the store.

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