

Mobile Advertisements and Privacy Issues

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Abstract

Considering that the main source of income for Internet businesses is through mobile advertisements, the appearance of a new type of “cash cow” is highly encouraging. Moreover, mobile advertisements in the advertisement industry are highly anticipated to be a win-win situation for both consumers and advertisers. To make the most of this advantage, advertisers are tempted to collect as much information as possible to identify personal preferences, analyze the present environment (based on social networking service (SNS) data), and determine real-time locations. However, mobile advertisements inevitably involve the risk of violating consumer privacy. Therefore, this study examines the different types of mobile advertisements positively influencing consumers while maintaining minimal infringement of privacy.

Keywords: Mobile advertisement, privacy, personal information

1. Concept of Mobile Advertisements

Wikipedia defines the mobile advertisements as follows: “Mobile advertising is a form of advertising via mobile (wireless) phones or other mobile devices.” Meanwhile, in 2011, the Korea Communications Commission (KCC) described mobile advertisements as, “A behavior of popularizing an advertisement by exposing an advertisement directly to consumers or inserting it into the contents such as an app via wireless Internet or mobile communication network” (KCC, 2010: 4). The definition by the KCC is concrete since it mentions the method of advertising as well as the media of mobile advertising. The advertisement methods that have recently occupied the largest portions in the mobile advertising market are search advertisements through smart phones followed by advertisements embedded in mobile apps. However, since it is expected that more mobile advertisements in various forms will appear in the future with the development of technology and business models, it is important to comprehensively define mobile advertising as “advertising via mobile devices,” like in the definition by Wikipedia.

Nevertheless, it is necessary to regulate the category of mobile devices somewhat strictly; for example, although a digital multimedia broadcasting (DMB) terminal and a satellite broadcasting receiver are included in mobile devices, one question arises: Do advertisements using them have to be included in the scope of mobile advertising? In this case, the devices are unidirectional ones, and the location of the terminal is not identified. In addition, since the important feature of online advertising is bilaterality or interactivity and the important feature of mobile advertising is location-based advertising, it is advisable to only view advertisements via mobile devices that at least have both features. Accordingly, this study defines mobile advertisements as “advertisements via bilateral mobile devices whose present locations are identified.”

2. Types of Mobile Advertising

The KCC (2011) classified online advertisements according to type, mode of payment, purpose, and usage pattern. Since mobile advertising is a type of online advertising, it can be generally categorized in this manner. However, the present study focuses on location-based advertisements (LBAs), which are a unique feature of mobile advertising.

Online advertising, mobile advertising in particular, cannot exist independently, e.g., like a billboard advertisement on the street, and it is provided to consumers through carriers. Thus, mobile advertising can be divided according to the carrier that places the advertisement. An example of the first type of mobile advertising is one which can be provided via SMS or MMS on feature phones. Although the advertisements are mostly push type, they can be attached to “catch call save” or “message search service” programs offered upon request by mobile phone subscribers. The message search service especially provides LBAs.

Another type of mobile advertisement includes exclusive audio advertisements, which insert advertisements into the ring back tone. These advertisements are also provided upon request by mobile phone subscribers and a discount on the phone bill is applied for the service. This service is generally used for promotional purposes by companies and target advertisement services. However, in these cases, LBAs are not provided.

Meanwhile, mobile search advertising and banner advertising offered via mobile webs have been “revved up” with the distribution of smart phones. Much like wired Internet search advertising or banner advertising, mobile search advertising presents advertisements in accordance with searched keywords. Banner advertising is used more for the promotion of a company’s brand image rather than direct sales. In this regard, it is rare for a company to present advertisements that are directly related to the location of mobile subscribers.

Finally, a wide range of advertisements are served through mobile apps. Various forms ranging from widget advertisements posted on blogs and ones posted on idle screens of video services to In App advertisements inserted in different apps, such as SNS location-based services (LBSs), are included in this category. The majority is available for target advertisements and LBAs are provided in LBSs.

3. Use of Personal Information according to Types of Mobile Advertising

Mobile advertising can contribute to consumer benefits depending on the type of advertising. However, to create elaborate mobile advertisements, the use of personal information is necessary. This section examines the use of personal information by mobile advertisements to determine the relative scale of such utilization. To date, although there is no objective methodology that can quantify the use of personal information, it is expected that the relative size between different advertising methods can be identified at least to a certain level.

First, let us discuss the use of personal information from one perspective. In Figure 1, a public television network’s mobile advertisements that do not use personal information is positioned on the left side of the unit line segment, where as a “Minority Report” type advertisement (as introduced in the film of the same name) is offered via complete monitoring and placed on the right side of the unit line segment. Since these two types of advertisements are extreme cases of using personal information, other mobile advertisements are positioned between these extremes. Of course, the advertisements that utilize personal information are relatively positioned more on the far-right side. Figure 1 presents the location of several types of mobile advertisements on the unit line segment.

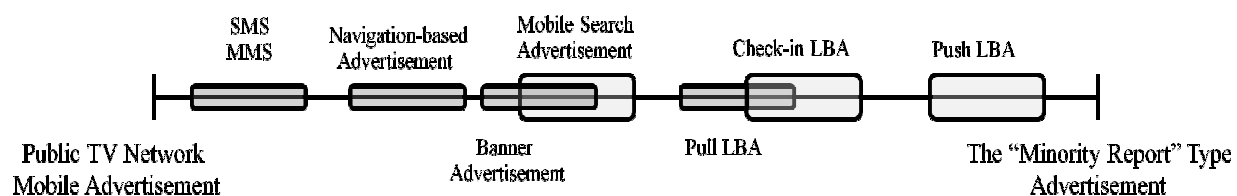


Figure 1: Privacy Continuum of Mobile Advertisements

The “Minority Report” type advertisement on the far-right side is only realized through the strict monitoring of individuals. This includes analyzing one’s overall history of transactions, history of communications through telephones and messages, detailed behaviors on the web, SNS and real-time location information, and records from surveillance cameras. This type of advertisement is only conceptual, and it has yet to be practiced in reality due to systematic restrictions on violations of privacy and consumer objections. Nonetheless, since it is conceptually located at the extreme end, it has a significant meaning as an object of comparison especially when discussing other types of advertisements.

The second most popular type of advertisement that uses personal information is push-based LBAs. In this type of advertising, the advertisers identify the location of the terminal in real time (using location-based technology) and determine the context of the consumers once they join specific LBS. Subsequently, the advertisers send the most effective and appropriate advertisements for the situation by analyzing the consumers' profiles. Despite the excellence effectiveness of push-based LBAs, this approach is still in its infancy, especially since LBS subscribers have been resistant to expose their location information to advertisers at any time, and consumer profiling by advertisers has not been sufficiently elaborate.

The next advertisement type is the check-in-based LBA such as the one that uses Foursquare. This type of advertising presents advertisements and coupons for products that may attract consumers when they check-in to a certain region. In this case, the advertisers identify the context implied by the location of the consumer after which they draw items that can appeal to the consumers based on their profiles. Meanwhile, it is assumed that pull-based LBAs, which show the relevant advertisement if a LBS user enters a search word, also applies personal information near or at the level of the check-in based LBA.

Like wired Internet, mobile (wireless) Internet also offers search advertisement services or banner advertisement services regardless of the users' locations. Although these advertisements are selected through search words and personal profile analyses, compared to the aforementioned types of advertisements, they do not use personal location information, and the targeting levels of individuals are relatively low. An advertisement, for example, that shows the nearest gas station or café from one's current location via navigation service is provided if one asks the same question in the same location regardless of his/her identity. The advertisements that consider user profiles, of course, are sent out when the navigation-based advertising service is more developed. This service only uses the location information of users, and it applies less personal information than mobile search advertisements or banner advertisements.

Push-based LBAs using SMS or MMS primarily offer target advertisements by using socio-demographic information. The advertisements inserted into the ring back tone also use such information. Furthermore, these advertisements use less personal information compared to the other aforementioned types of advertisements.

Finally, although it is technically possible to place public television network advertisements via mobile devices, it has yet to be realized due to inferior economic feasibility and advertising effects. However, it is significant since it is included in one side of the conceptual extreme, as in the "Minority Report" type advertisement.

4. Advertising Regulations and Personal Information

Personal information consists of personal profile information and personal location information. If these two aspects are classified (and the former is placed on the horizontal axis while the latter is placed on the vertical axis), then the level of the use of personal information by each type of mobile advertisement can be marked in two dimensions, as shown in Figure2. Here the top of the horizontal dotted line is the domain of the advertisement that collects and fully utilizes real-time personal location information. In addition, the higher it goes, the stronger is the level of collection and utilization.

In the meantime, the bottom of the horizontal dotted line is the LBA domain that corresponds to the location information given by users with the check-in method. Moreover, the lower it goes, the weaker is the relationship between the consumer's location and the advertisement. The right side of the vertical dotted line is the advertisement domain that aggressively collects personal information and persuades consumers by using such information. Here, the range of personal information collected becomes broader, and profiling becomes more elaborate as it goes farther to the right. The left side of the vertical dotted line is the advertisement domain that conducts as much profiling as possible to tailor the advertisement to the individual. Here, the correlation between the content of advertising and individual characteristics becomes weaker as it goes farther to the left.

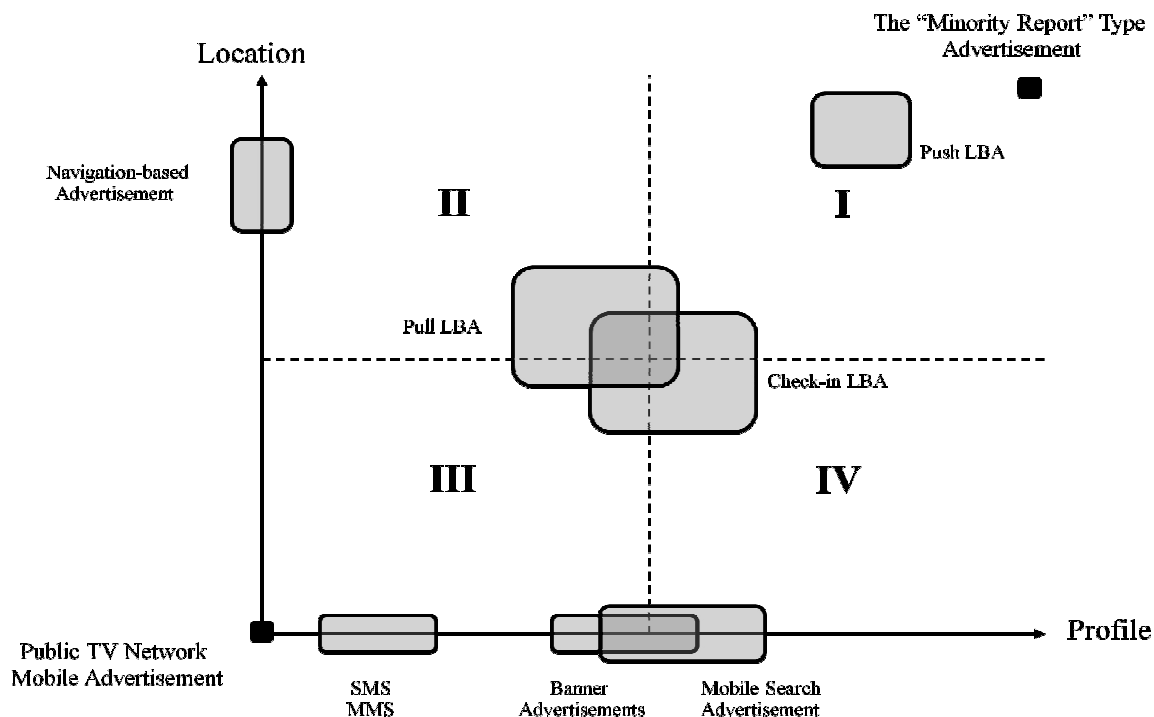


Figure 2: Personal Information Dependence of Mobile Advertisements

According to Figure 2, when there is market competition, the advertisements among LBAs that only provide information without persuading consumers (i.e., check-in-based LBAs or pull-based LBAs that exist in Domain III) contribute greatly to consumer benefits. The advertisements in Domain III, among the information providing navigation advertisements (SMS and MMS) and banner and search advertisements, can contribute to consumer benefits and show that the integrity of their contents is secured. Due to the high likelihood of having a negative influence on consumer benefits, it is desirable to regulate the collection and utilization of personal information required for advertising by other types of advertisements.

In reality, advertisers collect and use personal information in order to materialize the mobile advertisements presented in the Domain I in which there is a high possibility of harming consumer benefits. In this case, personal information includes information that can be used to persuade individuals, such as personal preferences, daily lifestyles, and political beliefs. In addition, real-time location tracking information is essential for understanding the situation and persuading individuals to notice certain advertisements. Accordingly, strong regulations against information collection by mobile advertisements are required to prevent them from hampering consumer benefits.

References

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