




# Legal Considerations on the Relationship Between Tourism Marketing and AR

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**Abstract.** Augmented reality (AR) is greatly changing the tourism scene in this decade. With the recent expansion of AR, it is now possible to obtain digital flyers and coupons by physically visiting a place. Various AR-based games, such as Pokémon Go, have encouraged many people to visit various locations in the real world. However, the use of AR as a marketing strategy to attract customers and induce movements in humans has created new legal issues, such as the appropriateness of placing coupons on private properties and its use in public parks by private companies for sales promotions. In addition, since AR can make valuable digital information appear in a space for a specific period, it raises new issues regarding time management. This paper considers the problems that arise in guiding people using AR, mainly from a legal perspective, and discusses the future direction.

**Keywords:** Argumented reality · Pokémon Go · Digital flyers · Coupons

## 1 AR and Marketing

Before smartphones became popular, marketing that associated place and time was quite difficult. If a promoter wants to revitalize an event by trying to realize a mechanism to hand out discount coupons when customers visit a certain place at a certain time, how could paper coupons be distributed in addition to announcing the date, time and place? Even a small number of visitors would require staff to handle the situation. On the other hand, if there are too many customers, other problems may arise, such as running out of coupons.

The widespread use of smartphones and AR has fundamentally resolved this problem. Smartphone users running an application linked to GPS can receive coupons via either e-mail or the application itself when they reach certain coordinates. The human staffing element is eliminated, dramatically reducing associated problems. The timing of coupon distribution can easily be controlled via the Internet.

In the United States, even convenience stores in have used Niantic's Ingress application to attract customers, and marketing using AR has already been put to practical use. Are there any problems associated with this situation? [1].

## 2 Previous Research

### 2.1 Privacy

Location data are personal, and privacy concerns exist regarding the use of such by companies like Google; Hulse & Reeves (2014) have reviewed this topic [2]. This topic is of course important. However, I would not like to discuss this topic because of limit of words.

### 2.2 The Impact of Pokémon Go

In addition to privacy concerns, the use of AR to channel human behavior can cause specific problems. For much of the past decade, application of AR has been a hot topic around the world; the AR application that has had the most impact on our lives is probably Pokémon Go. Since operators can superimpose fictional bases at which to acquire monsters and items in real space, ethical issues have arisen, such as whether it is permissible to play within the precincts of the Atomic Bomb Dome in Hiroshima [3]. Similar issues have also been raised at Auschwitz [4]. These concerns have largely been treated as matters of courtesy, and in practice have been resolved by the aggrieved party submitting individual requests to Niantic. In the case of players entering private property, those affected have asked Niantic to remove the location from the game, and the company has agreed to the request.

There is then the question of public space. The ‘appearance’ of a rare Pokémon Go monster in a park can result in a large crowd congregating, with associated issues of noise and parking limitations on the streets around the park, affecting the lives of local individuals.

Since requests to Niantic are only “requests” and are not legally enforceable, residents may suffer. After a bad experience with Pokémon Go, the US city of Milwaukee enacted an ordinance requiring game developers to obtain prior permission before placing any AR game on public land. However, the game developer Candy Laboratory Inc. Appealed the ordinance on the basis that the regulation violated the “freedom of expression” guaranteed by the First Amendment of the Constitution, and the local government lost the ruling. For more information on this matter, see the “Candy Lab Inc. v. Milwaukee Cnty.” lawsuit [5].

## 3 The Need for Systematic Research

The practical solutions to the problems mentioned above have thus far been ad hoc and have not been subjected to systematic study. This chapter takes AR-based coupon distribution as an example and discusses what problems may arise especially in terms of law.

### 3.1 The Case of Private Property

In considering the issue of whether digital coupons can be distributed on private property, the question arises as to whether the distribution of digital coupons can be stopped, even

though the current law can regulate locations off-limits to coupon recipients. In the case of AR-based coupon distribution, the distributor does not need to enter the real site and can place the coupons electronically, making this a difficult issue to regulate under current law. There may be a possibility of ex-post-facto punishment for inducing people to enter a private area illegally. However, that is a sanction after the fact, not a deterrent at the stage before trouble occurs.

Not only coupons, but also digital castles and monsters can easily be made to appear on private property using AR. Since such things cannot be seen unless the player is physically present at the scene, the likelihood of encroachment on private property increases.

Furthermore, there are some places on private property that are open to the public, such as shopping centers. Real-world distribution of paper coupons in such locations usually requires permission from the manager, but facility managers cannot physically regulate intangible digital coupons, making it difficult to regulate their distribution in such places.

It is technically possible to distribute Burger King coupons in McDonalds outlets, and under the current law there seems to be no mechanism to curb such de facto obstruction of business.

For example, the Burger King app in Brazil has a very interesting feature. If you point your phone camera at an outdoor advertisement of a competitor (effectively targeting McDonald's), you can play with AR to burn it. Once the burning process is completed on the phone, users are given a coupon [6]. This may effectively be obstructing business, but there may be no way to regulate this under current law.

For private companies to use AR strategy safely, prior guidelines or legal regulations should be considered as to whether digital information can be placed on private property using AR.

### **3.2 Public Land**

In the case of public land, the problem becomes more complicated. In liberal societies, freedom of expression is guaranteed constitutionally in many countries. For example, Speaker's Corner, in Hyde Park, London, is famous for freedom of expression, and such freedom in public spaces must be guaranteed as much as possible [7]. In the recent trends, discussion the relationships between public forum and cyberspace is increasing in number [8].

The above-mentioned regulation regarding the need to obtain permission before developing AR games that use public spaces is a clear violation of the Constitution, but the problems associated with AR in real space appear to be a subtle annoyance that cannot easily be said to be illegal. If a large crowd of people converges on a park because of AR games or digital coupons when a family with small children is relaxing there, is that situation acceptable? In relation to AR, some kind of permission may be required to allow applications to interact with the real world. However, until now, clear rules have not made.

### 3.3 Concept of Time

So far, we have looked at the regulation of AR with a focus on location, but time is also an important factor in AR regulation.

Although situated on private property, shopping centers are widely open to the public, and there may be no problem if digital coupons or unusual items from games are ‘placed’ there during the daytime. In addition, since the principle of “freedom of expression” is important in parks, it is basically difficult to prohibit the distribution of coupons and games.

However, at night, shopping centers are usually locked and many public parks are also off-limits. In such cases, if digital coupons or game items are placed in such places using AR outside open hours, they could potentially alarm the facility management. Distribution of rare coupons or game items at such times might induce illegal trespassing. To address such cases, a time-based decision scale would be necessary for the regulation of using AR.

## 4 Summary and Future Work

As we have seen, the distribution of digital coupons and attracting customers using AR could cause unprecedented trouble. On the other hand, modern society that uses digital space also seeks to enjoy the benefits thereof. In the near future, it will be necessary for industry groups and governments to formulate appropriate guidelines that address the situation in each country, while taking into consideration the above-mentioned problems. As regulation of AR is connected with the culture of each country, it is very difficult to make rules. However, standards are needed for evolution of information society.

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