# Advertising in the Networked Environment

Savvas Papagiannidis University of Newcastle upon Tyne, UK

#### **Michael Bourlakis**

Brunel University, UK

## INTRODUCTION

Advances in technology, in particular the Internet and mobile/wireless devices, have significantly affected business operations. As technology changes, communicating and interacting with customers could not be left untouched; the dot.com era saw many new forms of marketing emerge on the electronic landscape.

In this article, we discuss the possible marketing implications of the convergence of electronic media focusing on the delivery of advertising messages. We acknowledge the profound impact of information technology on marketing channels (Leek, Turnbull, & Naude, 2003) and use examples of various technologies to present changes that occurred in existing channels to illustrate the future potential of emerging channels. For each of the above, we provide examples of applications that can potentially be integrated to deliver advertising convergence.

# PERVASIVE AND UBIQUITOUS ADVERTISING IN THE NETWORKED ENVIRONMENT

#### Personalization

Personalization is a critical factor when it comes to a successful campaign. Despite the technological advances of the last decade, a holistic approach to delivering personalized messages and keeping track of the process is still too cumbersome. In fact it is not often possible to identify the customer at all. For example, watching a television broadcast does not require people to log in to the TV channel.

Perhaps, the only real exception is the World Wide Web. Online users create accounts and profiles to access services that are used to personalize them and provide a platform for the delivery of targeted advertising. Even when profiles are not available, the users' interaction with an online service, such as a search facility, provides a plethora of opportunities to deliver targeted messages. In more complex cases, targeted advertising is achieved by looking at group profiles, with Amazon's technique, "users who bought this item were interested in this item as well," probably being the most famous example of all. Other techniques can be used and related to business logic rules. The following list gives an idea of possible personalization techniques (van Amstel, van der Eijk, Haasdijk, & Kuilman, 2000):

- rules-based matching (club members, frequent visitors, etc.);
- matching agents (established profile can be matched with other profiles displaying similar purchasing behavior);
- feedback and learning (fields of interest);
- community ratings (others help define good from bad);
- attribute searches (all books with reduced prices);
- full-text search (personalization based on keywords used for the search); and
- collaborative filtering (feedback on products and services defines groups of individuals with similar interests).

Personalization techniques for targeted advertising delivery, although powerful, have been mainly limited by the virtual boundaries of the Internet and the physical boundaries of the areas where the computers were placed. With the constant introduction of more powerful mobile devices and the ability to get everything online cheaply, they could soon be widely available on-the-move, allowing for a whole new host of applications and, in this case, targeted personalized advertising.

# Mobile Marketing and Location-Based Services

As technology is about to change, future advertising messages will be delivered intelligently anywhere at any time. Advertising messages are currently confined within the narrow boundaries of the medium they were created to serve. The next generation Internet will change this; everything could be easily and cheaply connected and serve as a potential advertising channel. When visiting the mall, shoppers could end up constantly being greeted by automated marketing 'bots' that tirelessly try to convince them of the great value that their products offer. Perhaps the intelligence planet that Kaku (1998) envisioned may become frustratingly intelligent! Unrealistic as this may sound, one has only to look at the proliferation of spam (unsolicited messaging) to realize that such a scenario is not that difficult to be realized.

Interestingly, personalization often does not need personal information. Knowledge of the location and time can be enough to increase the value of the delivered message substantially. New generation mobile phone services have promised to deliver location-based services, which they do deliver already to a certain degree. Popular mobile portals such as Vodafone Live! can approximately locate a phone's position and offer relevant information. In the future, localized wireless technologies like Bluetooth may be able to provide more precise location positioning services.

Perhaps, however, even more important than locating someone carrying a mobile device is that he is carrying and using it most of the time. In 2003, seven out of ten (67%) of the 'young communicators' in the UK said they could not live without their mobile phones (Mori, 2002). This renders mobile devices, especially mobile phones, an invaluable tool:

While it is undoubtedly an effective one-to-one communications channel that can be easily personalized, it is also an invaluable conduit for pulling together strands of any multimedia marketing and/or marketing campaign. It is a ubiquitous and immediate point of convergence that has an enviable reach if used responsibly and effectively. (Kerckhove, 2002)

## **Permission-Based Advertising**

Location-based services can be a 'blessing' for marketers but a 'curse' for customers as they may end up becoming the constant recipients of advertising messages for nearby services and goods. This would bring spamming, which so far has been limited to e-mails, to a completely new level of frustration. For channels that have more or less been left untouched by spamming, there is always the fear that this may change at any time. For example, "although some research has suggested that teen mobile users often welcome unsolicited SMS messages, there is a growing fear that the rise in unwanted commercial text messages could jeopardize the whole future of mobile marketing" (Haig, 2001).

Of far more concern is that "the possibility of processing very precise location data should not lead to a situation where mobile users are under permanent surveillance with no means to protect their privacy other than not using mobile communications services at all" (Worthy & Graham, 2002). Different pieces of legislation and codes of conduct, like the Directive on Privacy Electronic Communications, have been introduced to regulate different forms of communications (Crichard, 2003).

As can be seen from Table 1, an implicit (in the form of an opt-out option or a 'soft opt-in' based on a prior relationship) or explicit (i.e., when the customer volunteers to opt-in and consents to his details becoming available for a specific purpose, usually marketing related) consent is required before addressing a potential customer. However, if no implicit consent is available, how will companies manage to reach new customers proactively? Obtaining permission from the customer to contact him again means that there has already been a contact. This gives the company the opportunity to lock the customer, if it can manage the communication channels effectively. What is going to happen with everybody else who does not have a previous contact?

Direct mailing could be used, if the details of the customer are known, as direct mailing, even when unsolicited, is not considered to be 'spamming'. Perhaps, though, what is needed in the context of a networked economy are more innovative uses of existing relationships that could be employed to create new soft opt-ins. For example, "the fact that mobile phones are essentially peer-to-peer communication tools provides 6 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage: www.igi-

global.com/chapter/advertising-networked-environment/13446

# **Related Content**

#### A Holistic View of Cybersecurity Education Requirements

Steven M. Furnelland Ismini Vasileiou (2019). *Cybersecurity Education for Awareness and Compliance (pp. 1-18).* 

www.irma-international.org/chapter/a-holistic-view-of-cybersecurity-education-requirements/225913

#### Technical Report: A Visit on Coca-Cola Happiness Factory in Greater Noida

Neel Raiand Shivani Agarwal (2019). *International Journal of Risk and Contingency Management (pp. 74-78).* www.irma-international.org/article/technical-report/216870

### On the Design of an Authentication System Based on Keystroke Dynamics Using a Predefined Input Text

Dieter Bartmann, Idir Bakdiand Michael Achatz (2007). International Journal of Information Security and Privacy (pp. 1-12).

www.irma-international.org/article/design-authentication-system-based-keystroke/2458

#### Structure-Based Analysis of Different Categories of Cyberbullying in Dynamic Social Network

Geetika Sarnaand M. P. S. Bhatia (2020). International Journal of Information Security and Privacy (pp. 1-17). www.irma-international.org/article/structure-based-analysis-of-different-categories-of-cyberbullying-in-dynamic-socialnetwork/256565

# Protecting Patient Information in Outsourced Telehealth Services: Bolting on Security when it cannot be Baked in

Patricia Y. Loganand Debra Noles (2008). *International Journal of Information Security and Privacy (pp. 55-70)*. www.irma-international.org/article/protecting-patient-information-outsourced-telehealth/2487