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### Economics of first-contact email advertising

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#### Abstract

Since the advent of the Internet, email has emerged as an important new form of personal communication. The focus of this research is on commercial advertising through the email channel. We analyze the underlying economics of a business model termed admediation that facilitates effective first-contact email advertising. Admediary is a trusted third party that facilitates a mutually desirable communication between buyers and sellers via email, and operates under the 'opt-in' mode widely supported by the consumer advocacy groups. Our analytical model examines the incentive structures for all participating entities, and derives pricing strategies, profit implications and characteristics of the email lists. We develop and model a form of price discrimination we term sequential elimination price discrimination that can be practiced via email. Our results indicate that the transactions facilitated by the admediary can create significant value whereby every participating entity realizes increased benefits. These findings underscore the potential of admediation to restore email as an effective communication media for online advertising.

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#### 1. Introduction

Astronomical growth of e-commerce has turned the Internet into a domain of intense corporate activity. E-commerce has provided opportunities for companies, irrespective of their size, to compete globally. This has prompted traditional market players to obtain an e-commerce business strategies to remain competitive in this

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electronic marketplace. Along with other business functions, there has been a remarkable boost in online-marketing activity, with companies attempting to develop new methodologies to more effectively market their wares online. According to Interactive Advertising Bureau, 5 online ad spending in US totaled nearly \$2.99 billion in the second quarter of 2005, up more than 26% from the same period in 2004, and increased 6.6% over the first quarter of 2005. For all of 2004, this number totaled \$9.6 billion, up 31.5% from the 2003 total of \$7.3 billion. As the number of Internet users, estimated at 729.2 million as of March 2004, 6 continues to grow, this trend is expected to continue.

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<sup>&</sup>lt;sup>5</sup> Interactive Advertising Bureau (http://www.iab.net/resources/ad\_revenue.asp).

<sup>&</sup>lt;sup>6</sup> Global Reach (http://www.global-reach.biz/globstats/index.php3).

Internet technologies offer a number of options for pursuing online advertising. The majority of current advertising dollars are generated through banner advertising and content sponsorship over the Web.<sup>7</sup> However, according to e-Marketer, an online market research company, *email* stands out as the "killer-app" of the online advertising world. This is because email can be *precision-targeted*, *responded to instantly*, and *unbelievably cheap*.<sup>7</sup> Furthermore, it offers *opportunities for private communication*, and when properly utilized, *helps build consumer trust* on a long-term basis. But since its inception, this mode of advertising has been plagued by a problem commonly termed as Unsolicited Commercial Emailing<sup>8</sup> (UCE).

The problem of UCE arises due to the peculiar cost structures inherent with email advertising. Sellers can relatively easily obtain unprocessed lists of email addresses, and the cost of sending email solicitations to these lists is minimal. The task of tailoring the lists to target likely consumers is quite expensive, and often is not feasible due to unavailability of the necessary information to identify interested consumers. From a seller's perspective, it makes economic sense to simply flood the entire list with solicitations as they become cost effective even at extremely low response rates. The incentives to do so are especially high for smaller establishments that can ill-afford the traditional and more expensive advertising channels and for establishments that care little about the negative public stigma associated with UCE. In fact, the majority of solicitations are for objectionable products and services, which are often illegal and fraudulent. Well-established and reputable firms have shied away from UCE as it has become synonymous with fraud.

The true costs of such advertising campaigns shift to the consumers and ISPs (Internet service providers). The *negative externalities* borne by the email users arise from the frequency, volume, irrelevance of email solicitations, the lack of control, and intrusions to personal privacy [11]. While not all unsolicited emails are necessarily unwanted, the majority is. Most email users perceive no value in receiving these messages. According to a recent report (http://www.rhsmith.umd.edu/ntrs/), the cost of dealing with junk email in US reached \$22 billion in 2004. So pervasive is the problem that AOL antispam filters blocks 1.4 billion spam messages daily. Considering the seriousness of the problem, the

FTC<sup>10</sup> has set up a special mailbox (uce@ftc.gov) to assess the emerging trends and developments. By the year 2002, the FTC mailbox had received over 8.3 million pieces of emails from consumers. On average, consumers forward 15,000 pieces of UCE per day to this mailbox.

A number of consumer organizations<sup>11</sup> have rallied together to address this problem, from both technical and legislative venues. A plethora of technical solutions based on schemes such as sender's address verification, 9 reverse filtering, 12 counterattacks, and blacklisting of known UCE senders have been implemented. While not foolproof, as senders constantly revise and update the tactics they deploy, these techniques have helped lower the overall burden on consumers and ISPs. The fight on the legal front is also gaining momentum. Beginning with the state of Washington in 1998, a slew of states have enacted laws to provide legal protection to their constituents. A number of federal laws are also under active consideration. 13 It is widely believed that effective legislative efforts will begin to impose significant costs on the offenders and will thus serve as an important deterrent.

A significant point of debate in crafting the legislation relates to the legal definition of UCE. Consumer advocacy groups favor a more stringent version that entails "opt-in." The opt-in approach allows businesses to send email solicitations only to individuals with whom they have prior business relationship in that they have received an explicit consent to send solicitations for product and services. Thus, any mode of advertising that involves making a "first-contact" email solicitation with potential prospects will be deemed illegal under this scheme. The Direct Marketing Association (DMA), representing legitimate advertising agencies, argues that the opt-in approach will have a "throw the baby out with the bath water" effect in that email will cease to exist as a viable channel for any form of advertising that entails a first-contact with prospects [4]. While they are supportive of efforts to curb fraudulent advertising, their interests lie in ensuring the availability of the email channel for legitimate and reputable sellers to reach potential customers. They also argue that opt-in can significantly increase the

<sup>&</sup>lt;sup>7</sup> e-Marketer(http://www.emarketer.com/estats/20000808\_iab.html).

<sup>&</sup>lt;sup>8</sup> Other descriptive terms include *junk email* and *spam*.

<sup>&</sup>lt;sup>9</sup> Time Warner Press Release, August 10, 2005, http://www.timewarner.com/corp/newsroom/.

<sup>&</sup>lt;sup>10</sup> The Federal Trade Commission (http://www.ftc.gov).

<sup>&</sup>lt;sup>11</sup> Such as The Coalition Against Unsolicited Commercial Email (CAUCE, www.cauce.org).

<sup>&</sup>lt;sup>12</sup> The E-Commercetimes.com (http://www.ecomercetimes.com/perl/story/18180.html).

Www.spamlaws.com provides up-to-date legislative information on UCE.

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