Exhibit 9

A Consumption Model for Targeted Electronic Advertising

Rick Dedrick
Intel Architecture Labs

Information distribution networks will give consumers access to rich-media-based electronic content in both business and home settings. Electronic advertising will become an integral component of such networks, subsidizing consumption while providing a new service for consumers without invading their personal space. The consumption model presented here explains how consumer-driven advertising might develop—and why it probably won't be soon.

Television, radio, newspaper, and magazine advertising pay for much of the cost of bringing these media to consumers. Advertisers heavily subsidize their delivery mechanisms, making them affordable. However, these media do not offer equal ability to tailor advertisements to a specific demographic and psychographic (hereafter referred to as "targeted") set of consumers. Demographic data include variables such as age, sex, income, and marital status. Psychographic data include likes and dislikes, color preferences, and personality traits that show consumer behavioral characteristics.

In television and radio, advertisers broadcast brand-awareness messages to a diverse audience to grow brand recognition. Thanks to the Nielson ratings, advertisers have a rough idea of consumer demographics within the reception radius of each distribution node. Unfortunately, not all desired consumers will tune in at the date and time the advertiser's commercial is broadcast. The ad's success depends on the number of desirable consumers exposed to it, but broadcast media have varying levels of success—and reliability—in proving to advertisers how many consumers saw or heard a particular ad.

Newspapers and magazines primarily rely on subscriptions and newspaper stand sales for distribution. Newspapers and magazines sold through news stands offer no statistics other than the raw numbers of publications sold in a particular period of time and in a particular place. Subscriptions can provide more revealing data, giving advertisers a better picture of available consumers. The better the readership data available for a publication, the better an advertiser can target consumers with a specific advertising message (and the more money a publication can charge for advertising).

In direct mailings, advertisers pay for consumer mailing lists that contain a specific set of targeted data. Often, the ads distributed through this medium aim for a very specific audience, exposing them to a custom-marketed product or set of services.

While using CD-ROMs, floppy disks, and VHS tapes has become popular in direct mail campaigns, advertisers have no highly reliable way to target a "rich media" ad to a specific set of consumers. Selecting one of the more targeted media (direct mail flyers and magazines) limits advertisers to print advertising. If they include audio- or video-based messages (such as those available on radio and TV), advertisers surrender some certainty that ads will reach the targeted consumers.

Correlating increased sales to a particular broadcast ad or campaign in traditional media is more art than science. Tracking changes in consumption behavior due to advertising in these media succeeds on an aggregate basis only. Moving into the electronic realm, to track advertising hit-or-miss rates on an individual basis requires an end-to-end electronic content distribution solution.

Invitation to Readers

This article represents ideas learned from work in progress for a current software engineering project in interactive electronic advertising. I welcome comments and collaboration from all interested parties—lively brainstorming sessions are fun as well as productive. Future plans for this project include the development of electronic yellow pages and electronic classified services, design and development of some of the base technologies listed here, and integration with other existing technologies. I hope these efforts will lead to a robust interactive electronic advertising solution for tomorrow's electronic content consumers.

—*R. Dedrick*
rdedrick@ibeam.jf.intel.com