Chapter VII

Delivery and Tracking of Rotating Banner Advertisements on the World Wide Web: An Information System Model

Subhasish Dasgupta  
George Washington University, USA

Rajesh Chandrashekaran  
Fairleigh Dickinson University, USA

In this chapter we propose a framework for the delivery and tracking of rotating banner advertisements on the World Wide Web (WWW). The proposed conceptual framework attempts to improve upon traditional approaches by utilizing both client and server resources. In addition to being able to track clicks, it allows for other non-traditional measures like exposure time and opportunities to see.

INTRODUCTION

According to the Internet Advertising Bureau (IAB), banner ads accounted for almost 55% of all advertising on the Internet. A typical banner advertisement consists of short text and/or graphic that is hyper-linked to an advertiser’s Web site. That is, when a user clicks on the button or banner, s/he is directly transported to that site.

Copyright © 2002, Idea Group Publishing.
As an advertising medium, the World Wide Web (WWW) has several characteristics that make it similar to both print and broadcast media. Although banner advertisements on the WWW can, in many ways, be equated with advertisements in traditional print media (newspapers and magazines), the Web offers a unique environment in which advertisers can include animation and interactive features to enhance the effectiveness of banner ads. Of course, greater interactivity demands greater bandwidth. In addition, the WWW offers selective targeting, flexibility and the ability to track effectiveness. Recent statistics (Li, 1999) suggest that, despite its many unique advantages, on-line advertising accounts for only a small portion of total media spending ($2.8 billion versus $117 billion in 1999). According to the Internet Advertising Bureau (http://www.iab.net), a large portion of Internet advertising dollars was devoted to consumer products and financial services.

Although traditional media like television continue to consume a major portion of the advertising budget, marketers have recognized the potential of the World Wide Web to communicate with their target market, and are focussing on using the power of this new medium to communicate with “net savvy” consumers. This is evidenced by the fact that the amount spent on net advertising has increased almost five-fold between 1996 and 1997 (Business Week, 1997). Advertisers, who have been constantly looking out for newer and better ways to get their ads noticed, find that the WWW offers them with a very unique environment in which to “sell their wares.” As noted by Berthon, Pitt and Watson (1996, pg. 53), “The World Wide Web is characterized by ease of entry, relatively low set-up costs, globalness, time independence and [most importantly] interactivity.” Unlike other traditional broadcast media (like television and radio), the Web offers advertisers a chance to communicate with consumers when they are highly involved, and when they are in an information-gathering and -processing mode.

**Evaluating and Pricing On-Line Banner Advertisements**

To be able to evaluate the Internet’s potential as an advertising medium, advertisers and Web sites must be able to develop valid and reliable ways of measuring effective reach (percentage of people from a given target market who have the opportunity to see the ad), frequency (average number of times a user in the target is exposed to the ad in a specified time period) and overall impact (behavioral and/or attitudinal changes produced). Ways of assessing the impact of on-line ads include the number of times the banner was served by the ad server (impressions), number of unique visitors (eyeballs), hits, click-through percentage, conversion rate, page views and duration of stay (sight stickiness). Although many firms (e.g., Media Metrics, Neilsen) have made significant progress in audience measurement and tracking ad effectiveness using a combination of several consumer-centered and site-centered measures, several issues need to be addressed before Web ad effectiveness can be assessed at the individual user level.

Although click-through and subsequent purchase behavior are popularly used as indicators of banner ad effectiveness, recent research has indicated that, in addition to eliciting behavioral responses (e.g., clicking), banners may be used to
Agent-Based Secure E-Payment System in E-Commerce
www.igi-global.com/chapter/agent-based-secure-payment-system/26462?camid=4v1a