

Topic Notes: Web Advertising

We'll next take a short look at a topic that is important to many web developers as well as users: online advertising.

There are several major groups involved here:

1. Advertisers

- looking to capture the attention of web users
- can target ads much more specifically

2. Web publishers, large and small

- monetize content
- makes many sites viable
- supports many of the large-scale “free” services like Facebook and Twitter

3. Web users

- see ads of interest?
- get annoyed by presence of ads?
- benefit from advertiser-supported sites, tools, content

4. Web advertising networks

- matching ads to published pages targeting the best subset of users
- a huge source of revenue for Google and others

5. Web search engines

- sell ads connected to specific search terms
- sponsored results

We will consider all the points of view of all of these groups.

Types of Ads

See **On the web:** Wikipedia Article “Web Banner at http://en.wikipedia.org/wiki/Web_banner for examples of web advertisement types.

See **On the web:** Wikipedia Article “Online Advertising” at http://en.wikipedia.org/wiki/Online_advertising in section “Types” for terminology.

Ad Servers

Many web ads are placed into web pages by advertising network servers such as Google or Linkshare. A web publisher registers with an advertising network and inserts a section of HTML in their documents that will be replaced by an ad.

For example, look at the source for a page on <http://www.teresco.org/pics/>.

Ads on this page are served by Google through its “AdSense” program. One is placed at the top of the page, one at the bottom. (Note: these are inserted into all documents on the site using server-side includes.)

The ad server chooses an appropriate ad based on the publisher’s preferences and the content of the page.

The mechanism for choosing appropriate ads is similar in many ways to web search – an ad should be chosen so as to be of interest to someone viewing the page.

This can also be problematic at times. It is not always clear from the HTML of a page what the content really is – especially when the main content consists of images.

Perhaps more important, for both web publishers and advertisers, is to make sure that “unfortunate” ads are not placed on a page. For example, a fast food chain might not want their ads placed on a page all about fast food – if that page happens to be focused on health problems induced by their products. The publisher probably does not want such ads to be displayed on the page either.

See the **On the web:** Article from *Communications of the ACM*: “Matchmaker, Matchmaker” by David Essex, May 2009, p. 16–17 at <http://mags.acm.org/communications/200905/?pg=18#pg18>

See the **On the web:** Google AdSense Product Tour at https://www.google.com/adsense/www/en_US/tour/index.html

Compensation

There are several ways advertisers may pay for ads and web publishers may be paid for ad placements.

See **On the web:** Wikipedia Article “Online Advertising” at http://en.wikipedia.org/wiki/Online_advertising in section “Revenue Models” for many of the terms.

Google's primary revenue source is selling the ads that display on their search result pages. This program is called "AdWords".

See **On the web:** Google's Intro to AdWords at

<http://adwords.google.com/support/aw/bin/topic.py?hl=en&topic=1713894>

Why are these ads so effective? You know someone is interested in the search terms – they just searched for them!