



# **CLEAR Ad Notice**

(Control Links for Education and Advertising Responsibly)

## **Technical Specifications**

*for the Implementation of the Interactive Advertising Self-Regulatory Principles for Online Behavioral Advertising (July 2009)*

V1.0

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**This document has been developed by the Interactive Advertising Bureau (IAB) and the Network Advertising Initiative (NAI).**

**About the Self-Regulatory Program for Online Behavioral Advertising Working Group:** The cross-industry Self-Regulatory Program for Online Behavioral Advertising Working Group consists of leading industry associations to apply consumer-friendly standards to online behavioral advertising across the Internet.

**Related Documents:**

Related documents, including the *Self-Regulatory Principles for Online Behavioral Advertising*, July 2009, can be found at [www.iab.net/behavioral-advertisingprinciples](http://www.iab.net/behavioral-advertisingprinciples)

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## Overview

While there are many opportunities and tools for users to learn and control their online computing experience (browser based tools, 3<sup>rd</sup> party tools, etc.), there is still concern in the marketplace that consumers are still not informed of their advertising choices. The online advertising industry has the opportunity to significantly increase the level of consumer awareness and control with respect to interest-based advertising.

If unified under a single standard, the online advertising ecosystem can convey “metadata” (data about the ad itself) during the ad serving process. That data can be surfaced to the consumer through multiple mechanisms. Notice elements would provide a consistent user experience to access privacy notices, education and opt-out links. The combination of these elements could support a more comprehensive and consistent disclosure in or around ads.

This document covers a proposed technical standard to empower each member of the online advertising community to communicate their presence and behavioral advertising targeting practices (if any) to consumers in a simple and direct manner.

## Objectives

These technical specifications were developed to:

- Meet the third-party<sup>1</sup> requirements set forth in the Self-Regulatory Principles for Online Behavioral Advertising released in July 2009 by the cross-industry Self-Regulatory Program for Online Behavioral Advertising Working Group.
- Be flexible enough to allow for future expansion as the online advertising industry matures.
- Be open such that publishers, browser developers, tool developers, or any other party can easily take advantage of the collective knowledge being presented to the end-user and experiment with new and better ways to communicate this information.

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<sup>1</sup> Although publishers may also wish to implement these guidelines, there are separate requirements set forth in the Self-Regulatory Principles concerning first-party notice on websites, such as an independent link in the footer of a web page (e.g. “About Our Ads”). Please refer to the Principles document for specific first-party guidance.

## The Online Advertising Ecosystem

The online advertising environment has evolved over the past 15 years to include five primary participants: advertiser, publisher, ad network, audience intelligence providers, and ad exchanges.

- **Advertisers** pay to present their ads to consumers.
- **Publishers** get paid to utilize some of their site “real-estate” to display an ad.
- **Ad Networks** provide the infrastructure to connect advertisers and publishers.
- **Audience Intelligence Providers** provide customized audiences to help advertisers more accurately convey their message to the intended audience.
- **Ad Exchanges** provide a neutral technology platform to allow ecosystem participants to interact with one-another to extend their reach and/or inventory for online advertising.

The CLEAR Ad Notice provides for transparency to each ecosystem participant involved in an ad serving event.

## CLEAR Ad Notice

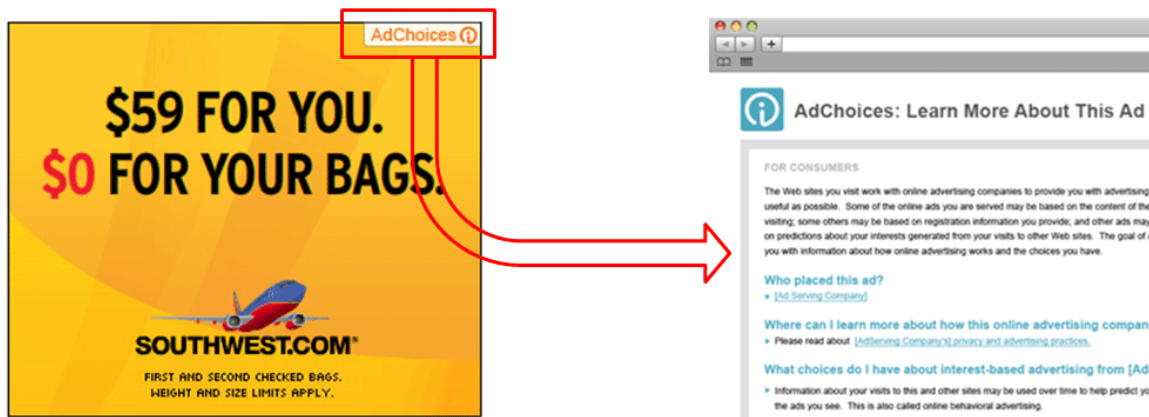
The CLEAR Ad Notice is divided into three components:

1. **Ad Marker:** The link either in close proximity to or on the ad itself that allows for interaction with a consumer to learn more about that ad
2. **Metadata:** The data about the ad that travels with the ad
3. **Ad Interstitial:** The visual rendering of the metadata to the consumer

Two visual implementation examples of these three components appear below:



Example 1: Ad Marker opens an overlay Ad Interstitial populated with the Metadata



Example 2: Ad Marker, using the Metadata, opens a new page (the Ad Interstitial) with information on the Ad and the Third Party

The CLEAR Ad Notice is flexible enough to allow these components to be served by either the Publisher or the Ad Network.

Component	Served By	Options
<b>Ad Marker</b>	Either Publisher or Ad Network	Can place adjacent to ad (Ad Slug) or on top of ad (Overlay)
<b>Ad</b>	Ad Network	As served today
<b>Metadata</b>	Ad Network	Can support multiple versions/metadata types (JS & Header)
<b>Ad Interstitial</b>	Either Publisher or Ad Network	Can be served as “overlay” script or as a separate page

## Ad Marker

The Ad Marker is the visual representation of a “link” presented to the user to learn more about the ad they are currently viewing.

The Ad Marker consists of two elements: an approximately 12x12 pixel **icon** and **text**. Full creative specifications, including size of the icon, font size for the text, text options, and color options will be published in a separate Creative Specifications document.

The Ad Marker can be placed in one of two locations for a standard graphical ad (listed in order of preference):

- Upper Right Corner of Ad (overlay)
- Upper Right Corner outside of Ad (may replace current “Advertisement” markers)

### Ad Marker Elements

- **Icon:** *Please note full creative implementation options will be published in a separate Creative Specifications document.*
- **Text:** Three choices have been developed and chosen by the Self-Regulatory Program for Online Behavioral Advertising Working Group: ‘Why did I get this/these ad(s)?’, ‘Interest Based Ad(s)’, or ‘Ad Choice(s)’. *Please note full creative implementation options will be published in a separate Creative Specifications document.*

## Metadata

### Transport Approach

To meet the stated business goals, simplicity is essential. As such, CLEAR Ad Notice requires that, with each ad serving event, data about the ad travel with the ad itself. The transport of metadata (data about the ad) can be conveyed across multiple transport mechanisms to provide for a simple or more advanced interaction with the consumer.

- **Javascript (JS) Metadata Variables:** Simple JS variable declarations
- **Header Metadata Variables:** Variables transported within the HTTP header of the ad

Each of these transport methods achieves a different goal and both should be supported.

- **Visibility:** Much like a relay race, the runner on the “last leg” is responsible for carrying the baton over the finish line. Similarly, JS Variables would require the “last leg” player to provide the needed variables to convey with the ad so they can be rendered for the end-user.
- **Accessibility:** The Header approach provides a more robust communication vehicle but cannot be interrogated by code from within the web page (JS Variables can). Although this approach allows for a richer and thorough data communication, external tools such as browser plug-ins or native browser features would need to be built to read this information. Headers allow for all data elements to be conveyed with an ad between each “relay” in the ad serving event.

### Javascript (JS) Metadata Variables

Most graphical ads today allow for basic HTML to be served with the ad to accommodate instrumentation of the ad and/or to allow for rich media ads. JS Variables leverage this fact to allow a CLEAR Ad Notice tag to accompany the ad when served (this works even if served within an iFrame). Once on the page, another JS variable served either with the ad or made available by the publisher will allow the metadata to be read and rendered to the user.

The CLEAR Ad Notice tag will carry multiple values in an array (as more than one ad may be served at one time or on the same page). The variables names are preceded with “CAN” to offer uniqueness and reduce the possibility of variable collision on a page.

Name	Variable	Description
Version	CAN-ver()	Provides the version of the CAN Standard being used so publishers and tools can appropriately process the passed information.
Advertiser Name	CAN-adn()	Provides the legal business name of the advertiser responsible for developing and placing the advertisement
Advertiser Link	CAN-adl()	Suggested this links to the advertiser's home page or page explaining their advertising practices and partners
Network Name	CAN-ann()	Provides the legal business name of the ad network responsible for the placement of the advertisement
Network Link *	CAN-anl()	Suggested this links to the network's advertising practices and control (opt-out) page
Matcher Name	CAN-man()	Provides the legal business name of the party providing matching services for the ad
Matcher Opt-Out Link	CAN-mol()	Suggested this links to the matching party's interest management or opt-out page
Matcher Manage Link	CAN-mml()	Suggested this be used in situation where a party host separate interest management and opt-out links
Match Flag *	CAN-maf()	Is behavioral targeting used for this ad – Y/N?

\* Minimum Metadata Requirements: The Network Link and Match Flag variables are the only required elements, however it is recommended that all elements be implemented when possible.

### Example: Javascript (JS) Metadata Variables

CAN Tags will most likely be JS wrapped but that has been stripped out in this example to make it easier to read:

```

<!--
CAN-ver(1)="0.1"
CAN-adn(1)="Joe's Shoes"
CAN-adl(1)="http://www.joeshoes.com/info"
CAN-ann(1)="Advertising.Com"
CAN-anl(1)="http://www.advertising.com/privacy"
CAN-maf(1)="Y"
-->

```

## Header Metadata Variables

The short version of the names should be used; the longer versions are provided for clarity.

Field Name	Field Example	Description
<i>[Entity].name</i> (short version: <i>[abbr.n]</i> )	Advertiser.name (ad.n) Adnetwork.name (an.n) Exchange.name (ex.n) AudienceIntelligence.name (ai.n)	Provides the legal business name of the entity
<i>[Entity].privacypolicy</i> (short version: <i>[abbr.pp]</i> )	Advertiser.privacypolicy (ad.pp) Adnetwork.privacypolicy (an.pp) Exchange.privacypolicy (ex.pp) AudienceIntelligence.privacypolicy (ai.pp)	Provides the link to the entity's privacy policy
<i>[Entity].optout</i> (short version: <i>[abbr.oo]</i> )	Advertiser.optout (ad.oo) Adnetwork.optout (an.oo) Exchange.optout (ex.oo) AudienceIntelligence.optout (ai.oo)	Provides the link to the entity's interest management or opt out page
<i>[Entity].targeting:behavioral</i> (short version: <i>[abbr.bt]</i> )	Advertiser.targeting:behavioral (ad.bt) Adnetwork.targeting:behavioral (an.bt) Exchange.targeting:behavioral (ex.bt) AudienceIntelligence.targeting:behavioral (ai.bt)	Is behavioral targeting used for this ad – Y/N, can be extended to include specific interests in the future

### Example: Header Metadata Variables

Since every ad has its own headers, there is no need to enumerate the ads on the page or enclose additional information about the ad in the header.

1. Client makes a GET request.

```
GET /index.html HTTP/1.1
Host: catalog.example.com
Accept: */*
Accept-Language: de, en
User-Agent: WonderBrowser/5.2 (RT-11)
```

2. Server returns content and the PolicyRef header pointing to the policy of the page.

```
HTTP/1.1 200 OK
Date: Fri, 10 Jul 2009 16:32:38 GMT
Server: Apache
P3P: policyref="http://info.joeshoes.com/w3c/p3p.xml", CP="CAO DSP COR
CUR ADM DEV TAI PSA PSD IVAi IVDi CONi TELo OTPi OUR DELi SAMi
OTRi UNRi PUBi IND PHY ONL UNI PUR FIN COM NAV INT DEM CNT STA
POL HEA PRE LOC GOV",
    ad.n="Joe's Shoes",
    ad.pp="http://www.joeshoes.com/info",
```

```
HTTP/1.1 200 OK
Date: Fri, 10 Jul 2009 16:32:38 GMT
Server: rmas-server-core-lz4/4.1.3.1
P3P: policyref="http://p3p.yahoo.com/w3c/p3p.xml", CP="CAO DSP COR
CUR ADM DEV TAI PSA PSD IVAi IVDi CONi TELo OTPi OUR DELi SAMi OTRi
UNRi PUBi IND PHY ONL UNI PUR FIN COM NAV INT DEM CNT STA POL
HEA PRE GOV",
    ex.n="Right Media",
    ex.pp="http://ad.yieldmanager.com/opt-out",
    ex.oo="http://ad.yieldmanager.com/opt-out"
```

```
HTTP/1.x 200 OK
Date: Fri, 10 Jul 2009 16:32:38 GMT
Server: Apache/2.2.9 (Unix) mod_ssl/2.2.9 OpenSSL/0.9.7m DAV/2
mod_rsp20/rsp_plugins_v15.08-07-29:mod_rsp2.2.so.rhe-5-x86_64.v15.2
P3P: policyref="http://www.tacoda.com/w3c/p3p.xml", CP="NON DSP COR
NID CURa ADMo DEVo TAIo PSAo PSDo OUR DELa IND PHY ONL UNI COM
NAV DEM",
    an.n="Advertising.com",
    an.pp="http://www.platform-a.com/privacy-
policy/advertisingcom/company-statement",
    an.oo="http://servedby.advertising.com/optout",
    an.bt="Y"
Content-Type: text/html
Content-Length: 3234
```

## Assessment of Metadata Transport Approach

Based on our stated objectives, the proposed metadata approach will provide each member of the online advertising community the ability to communicate their presence and behavioral advertising targeting practices. The following parameters were considered when assessing the metadata transport approach:

- User Experience: No impact. It's simply invisible text (no speed lag or technology interference)
- Convenience: Super lightweight. Requires no communication or connections be established between any ecosystem participant (division of responsibilities)
- Future Proof: Variables (metadata) can be added in the future and won't impact earlier versions
- Open: Visible to the top-level domain, the browser, or any tool the user may download. For example, Internet Explorer could adopt the CLEAR Ad Notice and allow the user to activate a pop-up of their own (similarly, a 3rd party plug-in could do the same thing)
- Ad Technology Proof: Works for any technology approach we use today (rich media, simple placement, iFrame, nested iFrame) and provides for an advanced mode for users to be able to track each step of the ad serving process
- Browser Technology Proof: Works for older browser versions, mobile browsers, and set top boxes
- Collision Proof: JS and Header variable names are highly unlikely to map against already used variables on any publisher web page. JS variables are assembled in an array to allow for multiple CLEAR Ad Notice tags on a single page.

## Metadata Use Cases

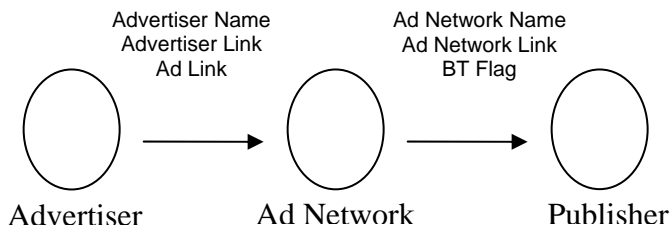
These use cases are provided to help highlight the business rules for exposing the “last let” of a transaction for JS Metadata Variable passage. (Header Metadata Variables should be passed by each participant in the ecosystem as an ad call moves from one to other—i.e., ad network -> audience intelligence provider -> exchange -> publisher)—so there is no need to establish business rules.)

Several scenarios are provided to demonstrate where data passage would be expected to occur:

- Simple: Advertiser -> Ad Network -> Publisher
- Complex: Advertiser -> Ad Network -> 3<sup>rd</sup> Party Ad Server -> Publisher
- More Complex: Advertiser -> Ad Network -> Exchange (with Audience Intelligence) -> Ad Network -> Publisher

### Simple Use Case

A typical use case is when an advertiser places creative with an Ad Network to be distributed to a publisher or publishers.



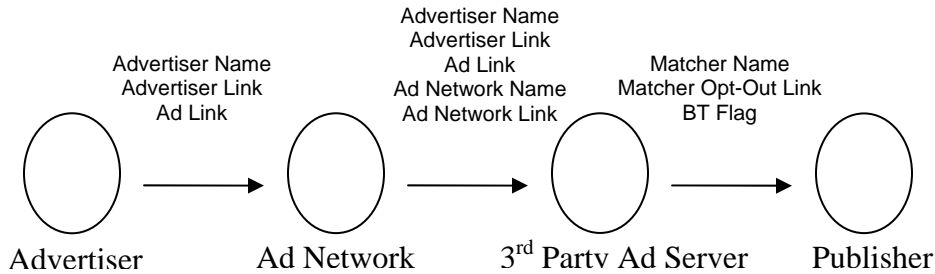
In this example, the Advertiser would most likely provide their details to the Ad Network prior to delivering the Ad itself for delivery. The Ad Network obviously knows its own information and would also know if the ad its being BT targeted.

The resulting metadata is:

```
<!--  
CAN-ver(1)="0.1"  
CAN-ad(1)="the ad link"  
CAN-adn(1)="the advertiser's name"  
CAN-adl(1)="link to the advertiser's site 'company info' page"  
CAN-ann(1)="the ad network"  
CAN-anl(1)="link to the ad network's 'what is this' page"  
CAN-man(1)= [empty or repeat of the ad network name]  
CAN-mol(1)="link to the ad network's 'opt-out' page"  
CAN-mml(1)=[empty in this case]  
CAN-maf(1)="Y"  
-->
```

## Complex Use Case

Another typical use case would be to introduce a 3<sup>rd</sup> Party Ad Server into the mix. In this case, the 3<sup>rd</sup> Party Ad Server's technology platform is leveraged for ultimate selection and placement of the ad on a Publisher's site. In this case, the 3<sup>rd</sup> Party Ad Server is holding the user profile and is named as the Matcher – with a link to their Opt-Out.



Much like in the first example, the Advertiser would most likely provide their details to the Ad Network prior to delivering the Ad itself for delivery. In this case, the Ad Network must transmit the Advertiser's information and their own to the 3<sup>rd</sup> Party Ad Server to provide all of the necessary elements to assemble the metadata to be placed on the Publisher's site.

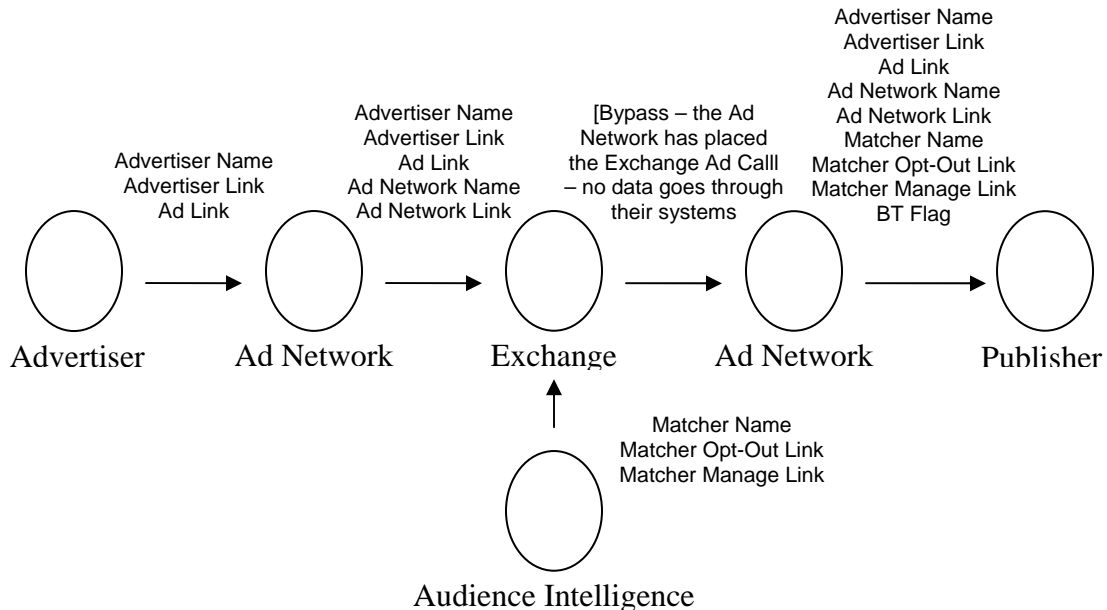
The resulting metadata:

```

<!--
CAN-ver(1)="0.1"
CAN-ad(1)="the ad link"
CAN-adn(1)="the advertiser's name"
CAN-adl(1)="link to the advertiser's site 'company info' page"
CAN-ann(1)="the ad network"
CAN-anl(1)="link to the ad network's 'what is this' page"
CAN-man(1)="the 3rd party ad server's name"
CAN-mol(1)="link to the 3rd party ad server's 'opt-out' page"
CAN-mml(1)=[empty in this case]
CAN-maf(1)="Y"
-->
  
```

## More Complex Use Case

A highly complex case would be to introduce an Exchange Platform and an Audience Intelligence provider into the data flow. In this case, the Exchange technology platform is leveraged to match an ad creative with a Publisher's site inventory across multiple Ad Networks or 3<sup>rd</sup> Party Ad Servers.



This example builds upon the last example and adds two new dimensions—an Exchange Platform and an Audience Intelligence provider. In this case, the Ad Network providing the inventory has placed the Exchange Platform ad tags on the publisher's site (either statically or dynamically) such that the Exchange itself is now responsible for delivering the resulting Ad and associated metadata. The Exchange will need to require the Ad Network delivering the Advertisement to provide the Advertiser details (this can be delivered with the ad creative on the fly or can be preset on the Exchange Platform). Additionally, the Exchange Platform targets the ad using data from an Audience Intelligence provider (which has a profile management interface for this example).

The resulting metadata:

```

<!--
CAN-ver(1)="0.1"
CAN-ad(1)="the ad link"
CAN-adn(1)="the advertiser's name"
CAN-adl(1)="link to the advertiser's site 'company info' page"
CAN-ann(1)="the serving Ad Network's name"
CAN-anl(1)="link to the serving Ad Network's 'what is this' page"
CAN-man(1)="the Audience Intelligence provider's name"
CAN-mol(1)="link to the Audience Intelligence 'opt-out' page"
CAN-mml(1)="link to the Audience Intelligence 'profile mgmt' page"
CAN-maf(1)="Y"
-->
    
```

## Ad Interstitial

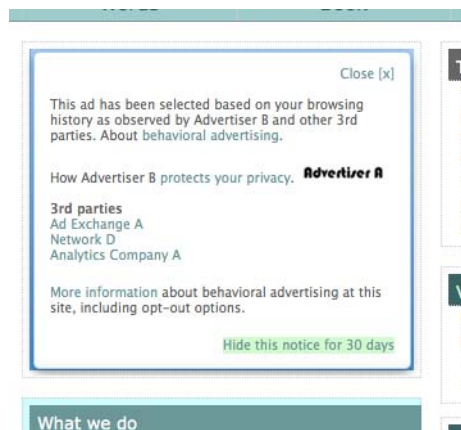
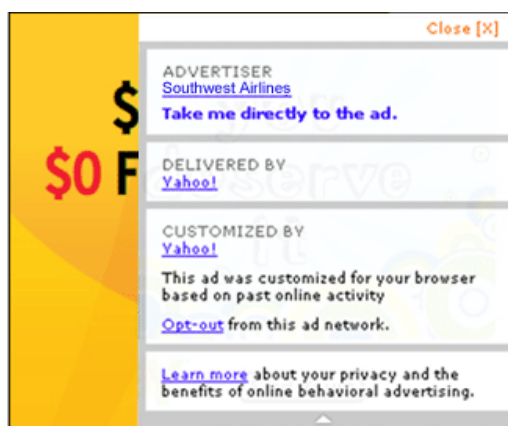
The final step in the CLEAR Ad Notice process is rendering the metadata to the consumer when they click on the Ad Marker. This is accomplished through an Ad Interstitial. The Ad Interstitial can be served as an overlay or in a separate browser window.

### Goals of the Ad Interstitial

- Consistency
  - Reveal metadata in user-friendly way. For example, a privacy “nutritional label” or a standard landing page layout
- Easy to understand
  - Limit # of data fields for ease of use
- User choices available
  - Opt-out links and/or
  - Profile viewer links (for companies that support such a model)
- Delineates between
  - Advertiser
  - Ad delivery vehicle
  - Targeting data
  - Educational links: Associations, government agencies, company-specific

### Ad Interstitial As Overlay

The following are examples of an overlay approach as opposed to a new browser window approach.



A live reference implementation of an Ad Interstitial overlay can be found at: <http://green.yahoo.com/living-green>. (Code for this implementation is available upon request from Yahoo!)

### **Ad Overlay Implementation Options**

There are two basis models of implementation of the CLEAR Ad Notice: Mediated and Direct. The CLEAR Ad Notice was designed to work equally well for both.

- **Mediated: Publisher creates their own Interstitial and populates with metadata**
  - Most likely, this is attractive to large publishers
  - Examples of this in the marketplace would be eBay and Bebo
  - Most likely, the Ad Marker will be served outside of the ad
  
- **Direct: Ad Network creates Interstitial and includes visualization in the ad serving event**
  - Most likely needed for small and medium publishers
  - Examples of this in the marketplace would be Google and Fetchback
  - The Ad Marker can be served on or in close proximity to the ad

It's important to note that even in Direct models, the Ad Network should still publish the CLEAR Ad Notice JS Metadata Variable tag and Header Metadata Variables to remain open and to allow third-parties or browsers to consume and present this information to the user through their own visualization approaches and tools.

## Ad Interstitial As Landing Page

As described in the Metadata section, the minimum requirement is passing the Network Link and Match Flag. In this situation, implementation of the interstitial most likely takes the form of an opening of a new window populated by a “landing page” for the Ad Network and its online behavioral advertising policies. Examples of what these landing pages may look like appear below (all examples are for illustrative purposes only and do not represent actual or recommended language or design)

The screenshot shows a Microsoft Advertising landing page titled "Ad Choices: LEARN ABOUT THIS AD". It features a Microsoft Advertising logo at the top left. Below the title, there is a paragraph explaining that ads are customized based on past online activity. The page is organized into several sections: "Who served this ad?" (Microsoft Advertising), "Where can I learn more about what information Microsoft Advertising collects and how it is used?" (links to privacy practices and principles), "What choices do I have about interest-based advertising from Microsoft?" (Opt-out button), and "How can I learn more about online advertising?" (links to NAI, IAB, and Internet Explorer 6). At the bottom, there is a section titled "Hear Microsoft's views on online privacy, safety and personalized advertising" with three video thumbnails. The footer includes "About Us / Microsoft Advertising Worldwide / Privacy / Legal / © 2010 Microsoft" and the Microsoft logo.

The screenshot shows a browser window displaying an AdChoices landing page. The browser's address bar and navigation buttons are visible at the top. The page title is "AdChoices: Learn More About This Ad". The content is divided into two main sections: "FOR CONSUMERS" and "FOR ADVERTISERS AND PUBLISHERS". The "FOR CONSUMERS" section includes a paragraph about online advertising, followed by sections for "Who placed this ad?", "Where can I learn more about how this online advertising company selects ads?", and "What choices do I have about interest-based advertising from [AdServingCo]?". The "FOR ADVERTISERS AND PUBLISHERS" section has a placeholder link "[Ad Network to Provide links and information here.]". A "Learn more!" sidebar on the right contains two bullet points about online advertising and browser controls. The browser's scrollbar is visible on the right side.

## Implementation Timeline

It will take time to introduce the full CLEAR Ad Notice to all participants in the online advertising ecosystem. To better maintain cohesion and unity, it is recommended this be accomplished in agreed-upon phases between the advertising ecosystem participants. Below is a recommended timeline.

### **Beta/Preliminary Testing Phase:**

In order to lay the groundwork for the placement of Ad Markers on ads in subsequent phases, initial testing of the Ad Marker should be carried out prior to the availability of metadata. Such testing will provide important feedback both from a consumer and advertiser perspective, as well as lay the groundwork for the underlying infrastructure for placement of the Ad Marker.

In the absence of metadata, it is expected that the placement of the Ad Marker would occur simply as the “last leg” of the ad serving process. The companies that choose to participate in the test phase would have discretion regarding the frequency of placement the Ad Marker on standard graphical ads. Disclosure elements would include actionable links from the Ad Marker, in order to begin consumer testing and education concerning the availability of an Ad Interstitial experience. It is expected that only standard graphical ad sizes and positions would be tested, rather than more complex scenarios such as those involving video, mobile and rich media ads.

### **Phase 1: Simple Metadata**

In this phase, metadata is introduced into the system. Each ad should carry, at a minimum, the two required JS Metadata Variables. This will allow for dynamic modification of the Ad Marker (different text) and population of the overlay Ad Interstitial with the metadata.

While only JS Metadata Variables are expressly supported in this phase, both Header and JS should be populated.

### **Phase 2: Advanced Metadata**

In this phase, all metadata elements should now be included in both the JS and Header Metadata Variables. The industry should also be exploring enforcement mechanisms for non-participating parties in the ecosystem, for security solutions to block bad actors, and ways to centralize and codify metadata variables to reduce ad metadata sizes. Lastly, browser plug-ins should be developed to fully expose the rich Header metadata available to the consumer.

Phase 2 will be coordinated by the Self-Regulatory Program for Online Behavioral Advertising Working Group and will begin when a critical mass of companies are able to support the full implementation.