The Darker Side of Online Advertising

Benjamin Edelman
December 3, 2008
Banner ads
<iframe src="728x90.asp?jscode=...">

<html>
<head>
<meta http-equiv="Refresh" content="9; url=728x90.asp?jscode=...">
<body leftmargin=0 rightmargin=0 topmargin=0 bottommargin=0 >
<p align=center valign=bottom>
<SCRIPT TYPE='text/javascript'
SRC='http://ad.yieldmanager.com/rmtag2.js'></SCRIPT>
<SCRIPT language='JavaScript'>var rm_host = 'http://ad.yieldmanager.com';var rm_site_id = 2578;var rm_section_code = 4400;var rm_iframe_tags = 1;rmShowAd('728x90');</script>
</p>
</body>
</html>
You are not logged in. | Sign up now

username: ********

Remember me

Choose Your Sport

NFL Football
GET /ads/282246/KkVQvrJdzzKjt3p7roifpojx1C7eH1y/UVFxkeXkxTHbpLIsZXrt0QFF HTTP/1.1 ...
Referer: http://media.ntsserve.com/servlet/ajrotator/399618/0/vh?ajecscp=1228215400420&z=ntsserve ...
Host: sk8rstv.com ...

HTTP/1.1 200 OK ...
Date: Tue, 02 Dec 2008 10:56:42 GMT

<html>
<head><title>-</title><style> BODY { margin: 0; } </style></head>
<body margin="0" marginwidth="0" marginheight="0" leftmargin="0" topmargin="0">
<iframe width="300" height="250" src="/ads/282246?o1=1228215402" noresize scrolling="No"
 frameborder="0" marginheight="0" marginwidth="0"></iframe>
<iframe width="1" height="1" src="/ads/282246?o1=1228215403" noresize scrolling="No" frameborder="0"
 marginheight="0" marginwidth="0"></iframe>
<iframe width="1" height="1" src="/ads/282246?o1=1228215404" noresize scrolling="No" frameborder="0"
 marginheight="0" marginwidth="0"></iframe>
<iframe width="1" height="1" src="/ads/282246?o1=1228215405" noresize scrolling="No" frameborder="0"
 marginheight="0" marginwidth="0"></iframe>
<iframe width="1" height="1" src="/ads/282246?o1=1228215406" noresize scrolling="No" frameborder="0"
 marginheight="0" marginwidth="0"></iframe>
<iframe width="1" height="1" src="/ads/282246?o1=1228215407" noresize scrolling="No" frameborder="0"
 marginheight="0" marginwidth="0"></iframe>
<iframe width="1" height="1" src="/ads/282246?o1=1228215408" noresize scrolling="No" frameborder="0"
 marginheight="0" marginwidth="0"></iframe>
<iframe width="1" height="1" src="/ads/282246?o1=1228215409" noresize scrolling="No" frameborder="0"
 marginheight="0" marginwidth="0"></iframe>
<iframe width="1" height="1" src="/ads/282246?o1=1228215410" noresize scrolling="No" frameborder="0"
 marginheight="0" marginwidth="0"></iframe>
<iframe width="1" height="1" src="/ads/282246?o1=1228215411" noresize scrolling="No" frameborder="0"
 marginheight="0" marginwidth="0"></iframe>
<iframe width="1" height="1" src="/ads/282246?o1=1228215412" noresize scrolling="No" frameborder="0"
 marginheight="0" marginwidth="0"></iframe>
<iframe width="1" height="1" src="/ads/282246?o1=1228215413" noresize scrolling="No" frameborder="0"
 marginheight="0" marginwidth="0"></iframe>
<iframe width="1" height="1" src="/ads/282246?o1=1228215414" noresize scrolling="No" frameborder="0"
 marginheight="0" marginwidth="0"></iframe>
<iframe width="1" height="1" src="/ads/282246?o1=1228215415" noresize scrolling="No" frameborder="0"
 marginheight="0" marginwidth="0"></iframe>
<img src="http://media.ntsserve.com/servlet/ajrotator/429461/0/vc?z=ntsserve&dim=348972&noCache=...
 width="1" height="1" border="0">
</body> </html>
Solutions to Banner Fraud

• Limit where ads may appear.
  – But networks prefer not to say.

• IAB standards on reload frequency.
  – Imprecise. AJAX-style apps challenge norms. Publishers can push the limits.

• Don’t pay per impression.
Paying per click
Laptops Make The Perfect Gift. Shop Wide Selection Online At Best Buy®!

Save up to $150 on Laptops. Free Shipping On Orders $24 and up.

Find out about Powerful, Reliable & Affordable Laptop PCs from HP!

Related searches: laptop deals

Laptop Magazine - Product reviews, tech news, buying guides, and more
LAPTOP Magazine is your complete mobile gear guide. We review the latest mobile tech products and provide expert buying advice, plus breaking industry news.

Apple MacBook
The new MacBook laptop features a precision aluminum unibody enclosure, more powerful NVIDIA graphics, a 13-inch LED-backlit display, and more.

Laptop - Wikipedia, the free encyclopedia
Search

Your Search: laptop

All Results | Articles | Multimedia

1-10 of 10,000+ Results

Sponsored Links

Toshiba Laptops
See What Makes Toshiba Laptops Different, Better, & Right for You.
ToshibaDirect.com/Laptops

Laptop at Circuit City
Save up to $150 on Laptops. Free Shipping On Orders $24 and up.
www.CircuitCity.com

Acer Laptops
Save More on Acer Laptops. Holiday Deals are at Walmart
Walmart.com

Save up to $709
Buy Select HP Laptops, Get $70 off Wireless Printers. Free Shipping!
www.shopping.hp.com

Laptops at TigerDirect
Take Advantage of Deep Discounts $1.99 Same Day Shipping, Shop Now!
www.TigerDirect.com

Laptop Computer
Laptop Computer Sales. Discount Laptop Deals Online.
LaptopsComputersDeals.com

$160 Off Laptop Computers
Save on Notebook Computers Now Great Gifts - Free Shipping
www.OfficeMax.com

Personal Tech: Computers

Battery Maker Is Betting on Silver-Zinc for Laptops - Green Inc ...
Ross Duerer, the company's chief executive, says a top-tier laptop manufacturer will release the first computer designed to accept silver-zinc batteries in ...
December 2, 2008

One Laptop Per Child Gets a Marketing Push
Media companies are donating television time and magazine pages to help the organization's effort to provide laptops to children in ...
CPC gone wrong
Click fraud
GET /?1143930576 HTTP/1.1 ...
Host: search.improvingyourlooks.com

HTTP/1.1 200 OK ...

<html> ...
<body onload='document.forms[0].submit()'>
<form action='http://64.14.206.59/cgi-bin/feedred' method='GET'>
<input type='hidden' name='c' value='2188'>
<input type='hidden' name='p' value='2068'>
<input type='hidden' name='d' value='1'>
<input type='hidden' name='nr' value='search.improvingyourlooks.com'>
<input type='hidden' name='q' value='lasik%20eye%20surgery'>
<input type='hidden' name='des' value='GxgGGx5FChkRDgcTSGEBQ0EwB...'>
<input type='hidden' name='des2' value=''>
</form></body></html>

GET /cgi-bin/feedred?c=2188&p=2068&d=1&nr=search.improvingyourlooks.com&q=lasik%20eye%20surgery&des=GxgGGx5FChkRDgcTSGEBQ0EwBh4XRUCFSE...
Host: 64.14.206.59

HTTP/1.1 302 Found ...
Location: http://www10.overture.com/d/sr/?xargs=15KPjg17hS%2DZXyl%...
Syndication fraud
Sponsored results containing: “marriage counseling”

**Marriage Counseling**
Alternative to Counseling 1 million programs sold. As seen on Oprah
http://www.lightyourfire.com

**Help Your Marriage**
Online program for married couples to help improve their marriage
http://Marriage.eHarmony.com

**Fix Your Marriage**
Marriage Counseling Alternative. Get Free Advice Immediately
http://www.YourMarriageFitness.com

**Marriage Counseling**
Watch 'Shalom In The Home' on TLC. Life Lessons With Rabbi Boteach.
http://www.TLC.com/Shalom

**Need Marriage Counseling?**
Unhappy spouse? Want to save your marriage? Here's what to do now.

**Sponsored Links**

**Marriage Counseling**
Alternative to Counseling 1 million programs sold. As seen on Opr...
http://www.lightyourfire.com

**Help Your Marriage**
Online program for married couples to help improve their marriag...
http://Marriage.eHarmony.com

**Fix Your Marriage**
Marriage Counseling Alternative. Get Free Advice Immediately
http://www.YourMarriageFitness.com
Ad-w-a-r-e Showing Google Ads

- **PPC Advertisers**
  - money → traffic

- **Google**
  - money → traffic

- **Ask**
  - money → traffic

- **Upspiral**
  - money → traffic

- **Looksmart**
  - money → traffic

- **Ad-w-a-r-e**
  - spyware installed without consent

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**How Upspiral gets paid for showing the ads**

**How Upspiral gets ads onto users’ screens**

**click fraud**
Split Emerges Among Shi'ites Over Iraqi Prime Minister

By EDWARD WONG and JOEL BRINKLEY 3:34 PM ET

An official demanded that the prime minister resign, as Secretary of State Condoleezza Rice made a surprise visit to Baghdad.

- Helicopter Likely Shot Down in Iraq
- Complete Coverage: The Reach of War

Freed Reporter Returns to U.S. for Joyful Reunion With Family

By RON DEPASQUALE and CHRISTINE HAUSER 5:07 PM ET
Qklinkserver Injecting Yahoo Ads

- PPC Advertisers
  - money
  - traffic
- Yahoo Overture
  - money
  - traffic
- Intermix SirSearch
  - money
  - traffic
- Searchdistribution.net
  - money
  - traffic
- Qklinkserver / Srch-results.com

spyware installed without consent
Inflating CPC conversion rates
SideFind Serving Yahoo PPC Ads

PPC Advertisers

money → traffic

Yahoo (Overture)

money → traffic

81.201.104.136

money → traffic

trafficengine.net

money → traffic

SideFind
Tracing the Redirects

1. POST /showme.aspx?keyword=%2esmartbargains%2ecom+...
   Host: tv.180solutions.com
   "ad_url" : ... value=http://popsearch.nbcsearch.com/metricsdomains.php?search=smartbargains.com

2. GET /metricsdomains.php?search=smartbargains.com
   Host: popsearch.nbcsearch.com
   HTTP/1.1 302 Found
   Location: http://ww2.ditto.com/red.php?mc=T%2FgSdHBNM%2Bg2%2...  

3. GET /red.php?mc=T%2FgSdHBNM%2Bg2%2B3AyiyVWsqV5cRprOptbkiRRrZ...
   Host: ww2.ditto.com
   HTTP/1.1 302 Found
   Location: http://ww2.ditto.com/click.php?mc=T%2FgSdHBNM%2Bg2...  


5. GET /d/sr/?xargs=15KPjg1%2DpSgJXy1%5FruNLbXU6TFhUBPycz2tpk%5...
   Host: www24.overture.com
   HTTP/1.1 302 Found
   Location: http://www.smartbargains.com/default.aspx?aid=47&t...
Yahoo Self-Targeting Click Fraud

Yahoo PPC Advertisers  Including Smart Bargains

money \downarrow  \text{traffic}  \uparrow

money \downarrow  \text{traffic}  \uparrow

money \downarrow  \text{traffic}  \uparrow

money \downarrow  \text{traffic}  \uparrow

money \downarrow  \text{traffic}  \uparrow

180solutions
Yahoo PPC Links

**None: Yahoo! Shopping**
Compare prices on None, read reviews and more. Find home and garden products from over 100,000 stores at Yahoo! Shopping.com.

[shopping.yahoo.com](http://shopping.yahoo.com)

**None**
Find Deals on None and other Kids and Family at DealTime. Choose from millions of deals. Save time and money every time you shop.

[www.dealtime.com](http://www.dealtime.com)

**Big Savings on None 40-60% Off**
Great discount on None. Thousands of herbal remedies. We sell for much less.

[www.herballoveshop.com](http://www.herballoveshop.com)

**Find None Alumni**
Find lost friends and old flames. Free registration at Reunion.com.

[www.reunion.com](http://www.reunion.com)
Protecting CPC advertisers

- Click-fraud detection services
- Contract specificity
- Limits on syndication and subsyndication
- Pay per conversion, not per click
Paying per conversion
Hardcover

Buy Now at Amazon
Buy Now at A1Books
Buy Now at Barnes & Noble
CPA/affiliate fraud
May 08

Buy.com Coupons & Reviews

Enter your email address:

<iframe SRC="http://affiliate.buy.com/gateway.aspx?adid=17662&#038;aid=10389736&#038;pid=2705091&#038;sid=&#038;sURL=http%3A//www.buy.com/" WIDTH=5 HEIGHT=5 frameborder="0" scrolling="no"></iframe>
GET /iframe3? ...
Host: ad.yieldmanager.com ...
HTTP/1.1 200 OK
Date: Mon, 29 Sep 2008 05:36:02 GMT ...

<iframe src="http://allebrands.com/allebrands.jpg"
...

GET /allebrands.jpg HTTP/1.1 ...
Host: allebrands.com ...
...
<a href='http://allebrands.com'>
<img src='images/allebrands.JPG'></a>
<iframe src='http://click.linksynergy.com/fs-bin/click?id=Ov83T/v4Fsg&offerid=144797.10000067&type=3&subid=0' width='0' height='0'>
<iframe src='http://www.microsoftaffiliates.net/t.aspx?kbid=9066&p=http%3a%2f%2fcontent.microsoftaffiliates.net%2fWLTtoolbar.aspx%2f&m=27&cid=8' width='0' height='0'>
<iframe src='http://send.onenetworkdirect.net/z/41/CD98773' width='0' height='0'>
SecretShopperxy
Deal Seeker

Re: Points2Shop - Shop For Free at Amazon.com

Quote:
Originally Posted by somerset1106

Are there any other sites like this?? I'm trying to compare 'em all it's a headache lol.

Ditto. I am still researching some other sites that are similar. If I find out any information I will keep ya posted. In the meantime, I am going to sign up.

Coming to a store near you! Muahaha!!
<img src="http://www.avxf.com/img16.jpg" border="0" alt="" /><img src="http://www.avxf.com/img17.jpg" border="0" alt="" /><br/>

GET /img16.jpg HTTP/1.1 ...
Host: www.avxf.com

HTTP/1.1 302 Found ...
Location: http://secure.hostgator.com/cgi-bin/affiliates/clickthru.cgi?id=dsplcmnt01 ...

GET /img17.jpg HTTP/1.1 ...
Host: www.avxf.com

HTTP/1.1 302 Found ...
Location: http://www.amazon.com/?...&tag=qufrho-20
Congratulations!
You've been selected to receive 250 FREE business cards.

- BONUS OFFER: FREE business card holder
- Easy to design; create in minutes
- Choose from 42 designs
- Full-color printing on 80lb. card stock
- Enter your own text, change fonts and colors

Get Started
POST /vomba/popup.php HTTP/1.1
Host: services.vombanetwork.com

...keyword=www.vistaprint.com...

HTTP/1.1 200 OK ...

<PopConfig ...><PopURL>http://www.lynxtrack.com/afclick.php?o=6297&b=b27rz05s&p=19934&l=1</PopURL>...

GET /afclick.php?o=6297&b=b27rz05s&p=19934&l=1 ...
Host: www.lynxtrack.com ...

HTTP/1.1 200 OK ...
Every payment system is targeted

• Pay per impression
• Pay per click
• Pay per sale / ad valorem
Why advertising fraud?

- Strong financial incentives
- Limited investigations of partners
  - Compare ordinary money transfers
- Limited incentives to uncover fraud
  - Advertising buyers
  - Ad networks
- Easy pseudonymity
- Cross-boundary attacks; pay is in USD
What is being done

• Nothing / cost of doing business
• Revising *Terms & Conditions* rules
• Auditing
• Litigation
• Ad networks competing based on quality

What more could be done

• Demand repayment. Sue. (Feasible?)
• Pay more slowly → penalties when caught