Securing Online Advertising

Benjamin Edelman
Banner Ads
The 44th President
Obama Vows Swift Action on Vast Economic Stimulus Plan
By JEFF ZELENY and JACKIE CALMUS
Barack Obama offered a broad sketch of a plan to create or save 2.5 million jobs by investing in public works programs and alternative energy.

NEWS ANALYSIS
Obama Tilts to Center, Inviting a Clash of Ideas
By DAVID E. SANGER
President-elect Barack Obama's reported selections for two major cabinet jobs suggest a preference for pragmatists, not ideologues.

SPORTS
College Football
The top storylines in college football, including the Big 12 showdown between Texas Tech and Oklahoma, are on the Quad blog.

TRAVEL
Ry Cooder's American West
By LAWRENCE DOWNES
El Mirage Dry Lake sounds like a place one step from nonexistence, but it's a critical stop on a journey into the misspelled world of the influential rock and blues artist.

U.S. Strike in Pakistan Kills British Militant
By ISMAIL KHAN and JANE PERLEZ
The militant, who served as a liaison to Al Qaeda, was a key suspect in a plot to blow up trans-Atlantic airliners.

Options discussed included a public endorsement from the government on a new financial lifeline.
Banner ads gone bad
This offer is brought to you by your personal Surf Sidekick. For more info visit SurfSidekick.com.
<iframe src="728x90.asp?jscode=..."> </iframe>

<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>
Inqwire Ad Relationships

Universal Studios

money ➔ traffic

Traffic Marketplace

money ➔ traffic

Right Media

money ➔ traffic

Inqwire

money ➔ traffic

Surf Sidekick
Investigator’s tools

- testing PC
- network hub
- Internet
- monitoring PC
  - network monitor / “packet sniffer”
The web’s only free, real-time streaming stock challenge.

- SIGN UP Wall Street Survivor™ NOW FOR THIS FREE CONTEST FOR A CHANCE TO WIN UP TO $50,000 DOLLARS!!
- Test your trading strategies and you could win your share of!
- Over $20,000 in cash and prizes paid out monthly!
- Play to Win $250,000 - Fantasy Stock Trading Game

REGISTER

Wall street Survivor™

Wall Street Survivor™ is a product of Stock-Trak Group, Inc. (OTCBB: STKG)

Wall Street Survivor™ is the Web's best fantasy stock trading game and investment contest portal where players can manage their own fantasy stock portfolios and...
Relationships

Advertisers

- Ad-Flow
- Burst
- Icon
- Rubiconproject
- Tribalfusion
- ValueClick / FastClick
- Yahoo / Right Media

Ad networks

- Pointtrip
- Fluentcall
- Webhotshop
- Flafungame
- Fitnessan
- ...

Ad loaders

Money

Traffic

Mytoursinfo

Traffic loader
Solutions to banner fraud

- Limit where ads may appear.
  - But networks prefer not to say.
- Enforce IAB standards on reload frequency.
  - Imprecise. AJAX-style apps challenge norms. Publishers can push the limits.
- Don’t pay per impression.
Paying per click
CPC gone wrong
Click fraud
Tracing the redirects

1. POST /showme.aspx?keyword=%2esmartbargains%2ecom+...  
   Host: tv.180solutions.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...
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.
Ad-w-a-r-e Showing Google Ads

How Upspiral gets paid for showing the ads

How Upspiral gets ads onto users’ screens

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

click fraud
Inflating CPC conversion rates
High Speed Internet Access
Find High Speed Internet Access. Get Info On High Speed Internet.
Internet-Web-Directory.com

Order Comcast High Speed
$100 Cash Back, Free Wireless Modem Only $19.99/mo. for 3 Months!
www.ComcastOffers.com

Order Road Runner
$34.95/mo for High Speed Internet. Free Modem. Get Road Runner Now!
www.RoadRunnerOffers.com

Verizon DSL Official Site
Vz High Speed Internet - $17.99/mo Price Guaranteed to Never Go Up!
Verizon.com
WhenU-Google Relationship

Google Advertisers e.g. Verizon

Google

Infospace Idearc Media / Superpages

Localpages

WhenU
Customer understands and agrees that ads may be placed on any other content or property provided by a third party ("Partner") upon which Google places ads ("Partner Property"). Customer agrees that all placements of Customer's ads shall conclusively be deemed to have been approved by Customer unless Customer produces contemporaneous documentary evidence showing that Customer disapproved such placements in the manner specified by Google.

Customer understands that third parties may generate impressions or clicks on Customer's ads for prohibited or improper purposes, and Customer accepts the risk of any such impressions and clicks. Customer's exclusive remedy, and Google's exclusive liability, for suspected invalid impressions or clicks is for Customer to make a claim for a refund in the form of advertising credits for Google Properties within the time period required under Section 7 below. To the fullest extent permitted by law, refunds (if any) are at the discretion of Google and only in the form of advertising credit for only Google Properties. Nothing in these Terms or an IO may obligate Google to extend credit to any party.
Protecting CPC advertisers

• Click-fraud detection services
• Contract & insertion order specificity
  – Limit syndication and subsyndication
  – Identify and reject improper placements
• Pay per conversion, not per click
Paying per conversion
Affiliate earns commission if …

• User requests affiliate web site
• User clicks affiliate’s link to merchant  /and/ 
• User makes a purchase

→ Merchant can safely partner with anyone?
CPA / affiliate fraud
This ad served by Zango software downloaded through Zango.com. Click here to learn more.
Blockbuster self-targeting adware fraud

Blockbuster

money ↓ traffic ↑

Performics

money ↓ traffic ↑

Roundads

money ↓ traffic ↑

Zango

Google Affiliate Network
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=14479710000067&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'>

McAfee

Microsoft OneCare

Symantec
Affiliate earns commission if …

- User requests affiliate web site
- User clicks affiliate’s link to merchant /and/
- User makes a purchase sometime after
  - Visiting a web page
  - Visiting a discussion forum
  - Seeing a banner ad /or/
  - Becoming infected with spyware/adware
Guarding CPA campaigns

- Know your affiliates.
- Question your affiliate network.
  - Hold your network accountable for its shortfalls.
- Do not assume perfection or infallibility.
Why advertising fraud?

• Strong financial incentives
  – Pay is in USD
• Easy pseudonymity
• Limited investigations of partners
• Limited incentives to uncover fraud
  – Ad agencies  “10% of spend”
  – Ad networks
  – Affiliate managers  “10% of year-over-year growth”
• Limited actions to obtain restitution
What is being done

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

What more could be done

• Demand repayment. Sue. (Feasible?)
• Push back on ad networks’ one-sided T&C’s.
• Pay more slowly $\rightarrow$ penalties when caught
Takeaways

• Every ad metric is targeted.
  – Paying per impression
  – Paying per click
  – Paying per conversion

• Incentives impede efforts at fraud prevention.

• Litigation and threatened litigation do not solve the problem.

• Good publishers lose when others cheat.