The Darker Side of Online Advertising

Benjamin Edelman
February 10, 2009
Banner ads
THE 44TH PRESIDENT

Obama Vows Swift Action on Vast Economic Stimulus Plan
By JEFF ZELENY and JACKIE CALMES 53 minutes ago
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 Cantor, 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 desyncratic world of the influential rock and blues artist.

U.S. Strike in Pakistan Kills British Militant
By ISMAIL KHAN and JANE PERLEZ 4 minutes ago
The militant, who served as a liaison to Al Qaeda, was a key suspect in a plot to blow up trans-Atlantic airliners.

Free face-to-face video calling.
This offer is brought to you by your personal Surf Sidekick. For more info visit SurfSidekick.com
Inqwire Ad Relationships

Universal Studios

money $\downarrow$ traffic

Traffic Marketplace

money $\downarrow$ traffic

Right Media

money $\downarrow$ traffic

Inqwire

money $\downarrow$ traffic

Surf Sidekick
Investigator’s tools

- Testing PC
- Network hub
- Monitoring PC
- Network monitor / “packet sniffer”
- Internet
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
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=GxgGGx5FChkRDgcTSgEBQ0EwB...&Host: 64.14.206.59

HTTP/1.1 302 Found ...
Location: http://www10.overture.com/d/sr/?xargs=15KPjg17hS%20DZXy1%...
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

Google

Ask

Upspiral

Looksmart

Ad-w-a-r-e

money \rightarrow traffic

money \rightarrow traffic

money \rightarrow traffic

money \rightarrow traffic

money \rightarrow traffic

spyware installed without consent
Inflating CPC conversion rates
A Christian Filtered ISP
We remove porn at server before it enters your home.
www.TrueVine.net

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)

money \downarrow \quad \text{traffic} \uparrow

Google

money \downarrow \quad \text{traffic} \uparrow

Infospace

money \downarrow \quad \text{traffic} \uparrow

Localpages

money \downarrow \quad \text{traffic} \uparrow

WhenU

Idearc Media / Superpages
AdWords Terms & Conditions

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
Negotiation Genius

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The Book
The Authors
Our Approach
Chapter Descriptions
Reviews
Contact

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Buy the Book

HARDCOVER

- Buy Now at Amazon
- Buy Now at A1Books
- Buy Now at Barnes & Noble
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
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!!
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
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'>
POST /showme.aspx?&SID=XEHON...&CD=www.blockbuster.com
&keyword=%2eblockb%2aster%2ecom+%2eblockbu%2ater%2e...
Host: tvf.zango.com ...

HTTP/1.1 200 OK ...
ad_url: ... http://ads.roundads.com/ads/clickcash.aspx
keyword=.blockbuster.com><

GET /ads/clickcash.aspx?keyword=.blockbuster.com ...
Host: ads.roundads.com ...

HTTP/1.1 301 Moved Permanently
Location: http://clickserve.cc-dt.com/link/tplclick?
    lid=41000000005307215&pubid=21000000000063579&mid=...

GET /link/tplclick?lid=41000000005307215&pubid=2100...
Host: clickserve.cc-dt.com ...

HTTP/1.1 302 Found ...
Location: https://www.blockbuster.com/signup/rp/reg...
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.
Every payment system is targeted

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

- Strong financial incentives
  - Pay is in USD
- Easy pseudonymity
- Limited investigations of partners
- Limited incentives to uncover fraud
  - Ad agencies
  - Ad networks
  - Affiliate managers
- 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 → penalties when caught
Typosquatting
Exploring typosquatting

• Start with top .COM’s.
• Compute Levenshtein distance between top .COM’s and all registered domains.
  (with Tyler Moore, postdoctoral fellow, Harvard Center for Research on Computation and Society)

  – Count insertions, deletions and substitutions.
  – CARTOONNETWORK – CARTOONNECTWORK
    • Levenshtein distance: 1 (one insertion)
  – CARTOONNETWORK – CARTOON-NETWOTK
    • Levenshtein distance: 2 (one insertion, one substitution)
Cartoon Network Games
Save on Toys & Games Compare & Buy from 1000s of Stores www.Shopping.com

Cartoon Network Games
Unlimited Free Online Games Play 1000s of Free Cartoon Games www.mygames.cc

Disney Personal Checks
Designs With Pooh, Tinker Bell, Mickey & More! Order Checks Here. DesignerChecks.com

Mickey Mouse Cartoon
Join Disney® Movie Club and Get 4 Movies at $1.99 Each- Free Shipping DisneyMovieClub.Go.com

Cartoon Network
Huge selection of Cartoon Network items. Yahoo.com

Related Searches
Games on Cartoon Network
Cartoon Network Tom and Jerry
Cartoon Network Star Wars
Ben 10
Cartoon Net Work Games
WWW Cartoon Games.com
WWW Cartoonnetwork Con
Cartoonnetwork Website
Boomerang from Cartoon Network
Cartoon Network Teen Titans
Cartoon Network Games
Save on Toys & Games Compare & Buy from 1000s of Stores
www.Shopping.com

Disney Cartoon
Join Disney® Movie Club and Get 4 Movies at $1.99 Each- Free Shipping
DisneyMovieClub.Go.com

Cartoon Network Games
Unlimited Free Online Games Play 1000s of Free Cartoon Games
www.mygames.cc
wal-marat.com

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Walmart Stores
Find Products at Great Prices.
www.Pronto.com

Always Low Prices...
Shop online for exclusive savings on electronics, jewelry and more.
www.Walmart.com

Walmart Employment
Apply right away. Start today. No Experience Necessary. F/T or P/T

Retailer EDI Solutions
Simple and Integrated EDI solutions Inexpensive. Easy. Great support!
www.xebecdata.com

Wall Mart
Shopping Made Easy at Yahoo! Low Prices On Wall Mart.
shopping.yahoo.com

Find Jobs in Your Area
Jobs listings from thousands of websites in one simple search.
indeed.com/Jobs

Wal-Mart Survey $1000
Take the survey to provide valuable information.
www.surveyhelp.org

Related Searches

WWW Walmart
Walmart Store Locator
Discount Department
Stores
Walmart Locations
Walmart Canada
Walmart Super
Walmart SuperCenter
Walmart CA
Walmart Superstore
Walmart Toys
Exploring typosquatting

• Of typosquatting domains showing syndicated PPC ads, 75.9% were monetized through Google.

• Self-targeted advertising is widespread.

% of Google-monetized typosquatting domains showing self-targeting ads

Expedia 22%
Microsoft 11%
Adultfriendfinder 53%
Walmart 13%
Vulcan Golf et al. v. Google et al.

- Plaintiffs: Trademark holders who suffered from typosquatting
- Defendants: Oversee, Sedo, Dotster, Internet Reit, Google
Decision on Motion to Dismiss

• Refused to dismiss ACPA claims
  – even as against Google
  – “registered, trafficked in, or used”
• Refused to dismiss Lanham Act claims
  – knowledge
  – innocent infringer
• Other claims kept in: False designation of origin, dilution, contributory infringement, vicarious infringement
Decision on class certification

• Denied
  – Question of ownership of the marks at issue
  – Question of presumption of distinctiveness of class members’ marks

• We are proceeding with the case on behalf of the four named plaintiffs on an individual basis.
Fighting typosquatting

• Where does litigation go from here?

• Research (with Tyler Moore, postdoctoral fellow, Harvard Center for Research on Computation and Society)
  – Which kinds of sites are targeted?
    • Kids sites
    • E-commerce sites
    • Hard-to-spell sites
  – Which registrars?
  – Which nameservers?
  – How much churn/tasting?
  – Which parkers are worst?
  – Which ad services? How much self-targeting?
My bottom line

• You have what they want.
  – Reputation == traffic == money
  – Ad spending == money

• Limited incentives to prevent fraud.
  – Intermediaries create diffusion of responsibility.
  – Many perpetrators - hard to know where to start.
  – Small harm to many victims (even corporate victims).
  – Mixed internal/staff incentives.

• Easy to look the other way.

• Growing problem as economy worsens and fraudsters get more sophisticated.