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Ad Network Analytics:
Uncovering Insights from Network Advertising Patterns

The Intelligence sector of Kantar Media
Digital Advertising Operations and Research Team
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Introduction

Advertising networks have emerged as a primary channel for Internet display advertising. For advertisers and agencies, ad networks serve as a way to reach both wide audiences and targeted demographic groupings. For site owners, ad networks provide a means to monetize inventory which hasn't been sold through direct sales channels.

There are hundreds of ad networks. Ad networks secure advertising inventory from publishers, from other ad networks and from third-party providers.

Ad networks employ the same sophisticated targeting and ad serving capabilities common across the industry, including geographic, demographic, behavioral and contextual targeting.

Ad networks also provide additional value to agencies and advertisers by providing a way for advertisers to maximize ROI by enforcing display rules for frequency capping, campaign exposure, reach metrics and context requirements. Many ad networks also provide additional value through data and other analytic services.

Kantar Media has developed a service which can be used by both buyers and sellers of media to analyze ad network activity in the marketplace in ways not previously possible. Through enhanced collection capabilities, Kantar Media now provides new insight into industry and advertiser ad network trends.

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Industry Challenge

A common issue cited within the digital advertising industry is that visibility into the ad network industry has been somewhat opaque. Ad network activity has sometimes been seen as a black box, leaving industry participants in the dark when it comes to trending and data analysis.

The nature of display advertising can add to this challenge. When visiting any specific Web site, it is not necessarily clear why a given ad was served at a given time. Moreover, it is not obvious who served the ad either.

By collecting and deciphering the underlying code within a Web page, it is possible to infer the source of a given advertisement. As part of its digital advertising offering, Kantar Media collects this underlying code and now provides the industry with the ability to gain insight into the source of display advertising - both publisher-direct activity and ad network activity.

Scope of Collection

The Intelligence sector of Kantar Media reports occurrence, impressions and expenditure data across over 4,500 Web sites in the U.S. and Canada.

In order to collect ad occurrences, a spider is deployed to continuously crawl the universe of Web sites and collect ad creative. Impressions are estimated by overlaying page view data from Compete, a Kantar Media company, with the occurrence data collected by the spider.

Ad network advertising is now identified as part of Kantar Media's continuous spidering process.

Technical Solution

In order to programmatically identify ad insertions attributable to ad networks, we extended the collection and storage of the internal web page code markup used to request and insert an advertisement on a web page.

When our spider requests a page to be retrieved while spidering, it retains and monitors all requests being made by that page. It then also retains any code that is injected dynamically on the page by various means.

This allows us to monitor and capture requests to third party ad servers - these may be direct servers used by publishers or they may be network-leveraged content distribution servers.

We also collect and associate any tracking calls associated with the advertisement on the page. In many cases, these also provide valuable clues as to the network that is responsible for injecting the advertisement onto the page.

Kantar Media worked with ad networks and publishers to develop a cross-industry perspective and identify key patterns.

By storing and analyzing the extensive markup used to inject the ad as well as tracking calls associated with the occurrence, we are able to derive meaningful patterns within the data. Even in the cases of multiple 'clickthroughs' for tracking, we are able to capture, decode and store each hop that a clickthrough would take - allowing us to identify relationships between the parties involved.

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A challenge faced in developing ad network segmentation methodology is the ability to segment ad network advertising from other third-parties which may also insert code into an ad placement on a Web page. As part of a daisy chain, code from multiple parties may be inserted into a Web page as part of any given ad call. Such third-party providers can be divided into three categories for the purpose of classification, although the lines between companies in this space are often blurred:

- Ad Exchanges: Ad Exchanges provide auction-based, real-time internet selling & buying advertising platforms for publishers. These are sometimes also referred to as Publisher-Side Platforms or Yield Optimizers.
- Demand-Side Platforms (DSPs): These allow buyers of media to optimize their ROI by providing a way to bid and set business rules around campaign buys.
- Data providers & aggregators: These data providers supplement the services of Exchanges, DSPs, and ad networks by providing data which agencies and advertisers can use to better understand audience, attention and reach.

Affiliate networks serve another niche – merchants may provide a share of revenue from products sold or visitors/customers identified as brought to the merchant by the publisher's efforts.

Ad exchanges, DSPs, data aggregators and affiliate network advertising are specifically excluded from our reporting of ad network activity. Segmenting out third party information provides clearer insight into publisher direct and ad network advertising activity.

A given ad occurrence is always classified as either publisher-direct or associated with a given ad network. For occurrences which are inferred to have been ad network served, such occurrences continue to be reported as part of the activity reported for the site on which the occurrence was collected.

One benefit of the proprietary methodology we use to analyze the tags we collect is that our system generates pattern recognition candidates on its own. The system identifies meaningful potential tags that are unrecognized and 'bubbles them up' for human research. In this manner, our system is continuously providing insight into emerging tag methods as well as network servers we have not encountered before.

It is important to note that our methodology for network identification relies on underlying code rather than creative matching for ad network identification. This means that even if a given creative is collected multiple times, only the creative occurrences served by an ad network will be counted as ad network activity.

Creating a Solution

We held an extended series of discussions with industry participants such as advertisers, agencies, publishers and ad networks to learn what they wanted for ad network reporting and to understand their concerns when working with networks. During development we also reached out to many ad networks, and worked with them to obtain guidance regarding network identification and insertion patterns.

It is clear from Kantar Media's industry forums and conversations that agencies and advertisers want transparency. On the other hand, some publishers are concerned that exposing their network relationships may undermine their own sales efforts. Therefore, in Kantar Media's initial network release, we will not provide access to network data at a site level.

At release, Kantar Media is collecting data for 29 networks. We anticipate adding more networks post release by soliciting industry input and receiving guidance as to the relevant code components used by additional networks in order to improve identification.

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As noted, our monitoring universe covers over 4,500 Web sites in the U.S. and Canada. This universe consists primarily of premium, top tier, second tier and local sites. As our ad network collection covers these sites, our ad network estimates reflect that universe and may differ from estimates from panel-based research companies.

A key need to be met by this new service is that advertisers and agencies will be able to see which brands are running on which networks. Duplication reporting will allow buyers to better optimize network buys for the greatest reach and efficiency. While we will not reveal network individual site placements as a courtesy to both publishers and ad networks, agencies will be able to identify which networks have the highest level of overlap when evaluating flights and campaigns.

Site owners and media companies can use this data to understand which networks have the highest penetration of advertising running within the universe of premier and market sites which Kantar monitors. Now media companies may target prospects not running on networks – that is, brands paying for premium placements directly through site partnerships – or prospects advertising on ad networks but not with them. Additionally, sellers of advertising will be able to evaluate product categories that may suit available inventory that carries light or no current network activity.

Ad Network Insights

Using a two-month data set (December 2009-January 2010) that reports ad network impression delivery by product, parent company and category we have conducted a number of basic analyses. Key findings are summarized below.

This is a 'thought-starter' exercise. The objective is to demonstrate some of the analytics and insights that are possible with these new data and to start building a knowledge base about data patterns and norms.

Within the data set available from Kantar Media, 29 ad networks are represented in this analysis. They are listed here in alphabetic order.

24/7 RealMedia	BURST!Media	Scripps Networks
Acerno	Casale Media	Specific Media
AdBrite	ClickBooth	Traffic Marketplace
Adconion	Collective Media Network	Tribal Fusion
AdDynamix/Pennyweb Networks	CPXInteractive	Turn.com
Adify	Dotomi	Undertone
ADSDAQ	Fox Audience Network	Valuead.com
AOL Advertising Network	Gorilla Nation Media	ValueClick
Audience Science	InterClick	Yahoo Publisher Network
Bannerconnect	Pulse 360	

Of course, an ad buyer's alternative to a network is to purchase space directly from individual publishers. Throughout this analysis, we refer to this segment as "Publisher Direct" and present results for it in the aggregate.

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What Share of Market Do Ad Networks Have?

As a group, the 29 ad networks accounted for 22.1% of total impression delivery across the monitoring base. Publisher direct ad placements had a dominant share of 77.9%.

The top 4 ad networks accounted for more than 85% of total network impression delivery.

Share of Ad Impression Delivery: Dec 2009-Jan 2010		
Publisher Direct, Total	77.9%	
Ad Networks, Total	22.1%	100.0%
Fox Audience Network		*34.7%*
AOL Advertising Network		*23.4%*
ValueClick		*14.0%*
24/7 RealMedia		*13.6%*
All Other Networks		*14.3%*
Source: Kantar Media		

Product Categories

We ranked product categories based on total impression delivery and then zoomed in on the top ten. For these heavyweights, we calculated the distribution of impressions between ad networks and publisher direct and compared against the benchmark norms shown in the table above.

The range of variation within these top product categories is astounding. At one extreme, nearly 80% of the impressions for the "Amusements and Events" category were via networks. At the other end of the tail, some top product categories distributed less than 10% of their ad weight through networks.

Top Product Categories: % Share of Ad Impression Delivery			
Product Category (Code & Name)	**Ad Network**	**Publisher Direct**	**Grand Total**
Grand Total, All Product Categories	22.9%	77.1%	100.0%
B120 Financial Products & Services	12.9%	87.1%	100.0%
B220 Telecommunications Providers/Services	23.3%	76.7%	100.0%
B640 Television & Cable Television	**2.2%**	97.8%	100.0%
B670 Internet Commun,Cntnt Prvdrs,Prtls,Engns	21.9%	78.1%	100.0%
T110 Cars & Light Trucks, Factory	11.3%	88.7%	100.0%
V160 Amusements & Events	**79.9%**	20.1%	100.0%
D800 Fitness & Diet Programs & Spas	**6.5%**	93.5%	100.0%
B320 Organizations	26.4%	73.6%	100.0%
V360 Consumer Elect,Sport,Toy,Hobby Retailers	10.8%	89.2%	100.0%
G510 Games	31.0%	69.0%	100.0%
Source: Kantar Media			

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Parent Company Advertisers

Our ad network monitoring data identified more than 7,000 parent companies that placed ads through any of the 29 networks we tracked during the December-January period. However, a select group of just ten companies accounted for more than 40% of all network-delivered impressions. That's a higher concentration than the publisher direct segment where the Top Ten companies accounted for about one-third of all impressions delivered via that channel.

The Top Ten network advertisers are an eclectic mix of large blue-chip companies and smaller, less well-known firms. On the other hand, the Top Ten publisher direct advertisers are a veritable Who's Who of internet marketing.

The tables below show the Top Ten rankings for each of these segments. The percentages are each company's share of total segment impressions. There are four companies common to both lists.

Top Parent Companies Ranked on Ad Network Impressions		
Rank	**Parent Company**	**% Share**
	All Companies, Total Ad Network Impressions	100.0%
1	Victory Records	10.8%
2	Zynga Inc	6.8%
3	Sprint Nextel Corp	4.7%
4	Privacy Matters (FreeCreditReport.com)	4.1%
5	AT&T Inc	3.4%
6	Fuji Heavy Industries (Subaru) Local Dealers	3.3%
7	Carlson Cos Inc	2.0%
8	Dell Inc	2.0%
9	Ad Council	1.8%
10	Verizon Communications Inc	1.7%
Source: Kantar Media		

And the rankings for publisher direct impression delivery:

Top Parent Companies Ranked on Publisher Direct Impressions		
Rank	**Parent Company**	**% Share**
	All Companies, Total Pub Direct Impressions	100.0%
1	General Electric Co	7.5%
2	AT&T Inc	6.9%
3	TD Ameritrade Holding Corp	3.3%
4	Artal Group (Weight Watchers)	2.9%
5	Scottrade Inc	2.4%
6	Privacy Matters (FreeCreditReport.com)	2.4%
7	Verizon Communications Inc	2.3%
8	Zynga Inc	1.8%
9	General Motors Corp	1.6%
10	Experian Group	1.5%
Source: Kantar Media		

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How Many Networks Does An Advertiser Use?

As disclosed earlier, over 85% of the network-delivered impressions in our data set flowed through just 4 of the 29 ad networks. This implies that individual advertisers and products concentrate their network buys on a small number of these entities.

To examine this premise, we took the Top 100 parent companies as ranked by their internet ad spending. We then identified all of their products with internet advertising during December-January (n=1,277). The final step was to look at the ad network activity for each product and note how many individual networks were used.

By limiting this analysis to the highest spending online advertisers, we tried to create a best-case situation for finding budgets affordably deployed across multiple networks. The results showed otherwise. 56% of the products used _exactly one_ ad network. Only 17% of products used 4+ networks. The mean was just 2.3 networks out of the pool of 29.

Additional Ad Network Analysis

Kantar Media | Intelligence plans to release additional ad network insights to the industry in the months to come.

Any ad networks who would like to work with Kantar Media directly may contact carla.dunlap@kantarmedia.com.

Ad network reporting is available within Kantar Media | Intelligence's flagship multimedia and Internet reporting products Stradegy and Evaliant. If you would like to get deeper insight into ad network reporting, contact todd.isaacson@kantarmedia.com.

About Kantar Media
Established in more than in 50 countries, Kantar Media enables exploration of multimedia momentum through analysis of print, radio, TV, internet, social media, and outdoors worldwide. Kantar Media offers a full range of media insights and audience measurement services through its global business sectors – Intelligence, Audiences and TGI & Custom.   Combining the deepest expertise in the industry, Kantar Media tracks more than 3 million brands and delivers insights to more than 22,000 customers around the world. www.KantarMediaNA.com

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Kantar is one of the world's largest insight, information and consultancy networks. By uniting the diverse talents of its 13 specialist companies, the group aims to become the pre-eminent provider of compelling and inspirational insights for the global business community. Its 26,500 employees work across 95 countries and across the whole spectrum of research and consultancy disciplines, enabling the group to offer clients business insights at each and every point of the consumer cycle. The group's services are employed by over half of the Fortune Top 500 companies. For further information, please visit us at www.Kantar.com

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