

Online Ad Networks: *Monetizing the Long Tail*

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desilva + phillips, LLC

475 Park Avenue South • New York, NY • 10016

(212) 686-9700 • mediabankers.com

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Online advertising networks have emerged as an essential vehicle for monetizing the Long Tail of the Internet. By aggregating traffic that was previously too difficult to buy or which was otherwise undesirable, ad networks provide small and mid-sized online publishers with significantly more advertising revenues than would otherwise be possible. And by finding ways to make this inventory more palatable to more advertisers, ad networks are positioned to grow faster than the broader market.

During 2007, M&A activity approached \$2 billion for 10 different “pure play” ad networks and exchanges – not including WPP’s \$649 million purchase of 24/7 Real Media (whose eponymous ad network accounted for about one third of revenues), the \$6.0 billion paid for aQuantive (whose DrivePM ad network accounted for less than 15% of revenues), the now-completed \$3.1 billion purchase of DoubleClick (which launched its ad exchange just prior to the announcement of Google’s bid), nor the unsuccessful bid by AOL for Sweden’s TradeDoubler, worth approximately \$900 million. Similarly, venture capital investment into the sector was robust, at approximately \$300 million.¹

RECENT AD NETWORK ACQUISITIONS

Acquiree	Acquirer	Focus	Announced	Amount (\$mm)	Status
AdDynamix	Ybrant	General	Dec 2007	\$10	Completed
Cubics	Adknowledge	Widget	Dec 2007	n/a	Completed
Blue Lithium	Yahoo!	Behavioral	Sept 2007	\$300	Completed
Chintano	Datran	Contextual	Aug 2007	\$30	Completed
AdECN	Microsoft	Exchange	July 2007	\$50	Completed
Tacoda	Time Warner (AOL)	Behavioral	July 2007	\$275	Completed
Feedburner	Google	RSS	May 2007	\$100	Completed
aQuantive (DrivePM)	Microsoft	General	May 2007	\$6,000	Completed
DoubleClick	Google	Exchange	April 2007	\$3,100	Completed
24/7 Real Media	WPP	General	April 2007	\$649	Completed
Aptimus	Apollo Group	General	Aug 2007	\$48	Completed
Jumpstart Automotive	Hachette Filipacchi	Vertical	April 2007	\$100	Completed
Right Media	Yahoo!	Exchange	April 2007	\$680	Completed
ThirdScreenMedia	Time Warner (AOL)	Mobile	Feb 2007	\$80-\$100	Completed
TradeDoubler	Time Warner (AOL)	General	Jan 2007	\$900	Rejected
Lightningcast	Time Warner (AOL)	Video	May 2006	n/a	Completed
Massive	Microsoft	Gaming	May 2006	\$200-400	Completed
Fastclick	ValueClick	General	Aug 2005	\$214	Completed
Advertising.com	Time Warner (AOL)	General	Apr 2004	\$435	Completed

Source: DeSilva & Phillips estimates, Company Reports

This flurry of transactions lets AOL, Yahoo!, Microsoft and Google make multiple bets on the future direction of online advertising: expanding or buying owned-and-operated inventory globally while concurrently buying networks and exchanges. However, the evolution of the industry is far from complete. Important networks such as Tribal Fusion and Casale continue to thrive independently – for the moment, anyway. And even as top-tier online players seek tuck-in acquisitions, many traditional media companies (especially those based outside North America) are only now establishing their online presence.

Select stand-alone players are certain to have bright futures: generating cash and using their platforms to roll up small rivals and niche specialists into “baby aQuantives,” taking advantage of unique technologies and advertiser relationships while ultimately prepping themselves for even richer exits.

Ad Network Genesis

From its earliest days, the Internet provided a platform for inexpensively packaging and distributing content. But monetizing this content directly is challenging for all but the largest online publishers.

Anecdotal reports suggest that even Top 100 publishers sell only 40% of inventory through direct means. This problem is well-illustrated by the disparity between page views and revenues: 30-40% of total internet page views can be attributed to the 10 most-trafficked domainsⁱⁱ, while ad dollars for the 10 largest online publishers tracked by the Interactive Advertising Bureau account for approximately 70% of industry revenues. This concentration at the top is unlikely to abate in the near term. Ad networks offer one way to “spread the wealth,” at the same time positioning themselves to generate revenue growth in excess of the broader market.

In a world without ad networks, few online publishers would be able to sell their entire advertising inventory. Small publishers can’t afford their own sales forces (and provide related service, research and analytics) to sell their inventory to direct marketers. Even large publishers such as CNET or WebMD can’t place their entire inventory with advertisers at the rates they must charge to sustain the integrity of their marketplace (and justify the time and effort associated with selling).

Similarly, brand advertisers, direct marketers and their agencies are challenged because:

- Small sites are perceived as low quality to large brand advertisers. Popular or highly trafficked sites are generally considered much more valuable, given large brand advertisers’ needs for reach and frequency
- Context matters at a conceptual level (certain publishers are acceptable, others are not)
- Buying small sites is time-consuming for brand advertisers and direct marketers alike
- Brand advertisers need mass reach but costs for portals are high, so frequency remains limited (or expensive)
- Few sites or networks can meet brand advertisers’ objectives alone

Ad networks offer a solution to most of these challenges. Direct marketers can procure residual inventory from higher quality publishers and more tonnage from Long Tail publishers as well. Brand advertisers can buy display as they always did, but a more efficient version of buying has emerged to help them consider Long Tail and other residual content while better managing media costs.

Labor costs and logistical challenges for managing buys from more than a handful of suppliers during one campaign similarly push larger advertisers into the arms of suppliers who can provide one-stop shopping. Given these constraints, opportunities to realize more “efficiency” have obvious appeal.

For example, a relatively unknown site such as FactMonster.com (ranked 997th in traffic site by Quantcast during January 2008) would not likely generate enough revenue to support a sales force capable of selling to an agency working with Red Lobster. But an ad network such as Casale can be engaged to perform related services.

Exhibit 1: Illustration of an Ad Network in Action

The image shows a screenshot of the FactMonster.com website in a Microsoft Internet Explorer browser window. The browser's address bar shows the URL <http://www.factmonster.com/>. The website content includes a banner for "FREE Dinner for Two at Red Lobster", a search bar, a "Fact Monster Blog" section with age group filters (BOYS: 6-10, 11-14; GIRLS: 6-10, 11-14), and a "TRAVEL DEALS" section for "Sherman's Top 25".

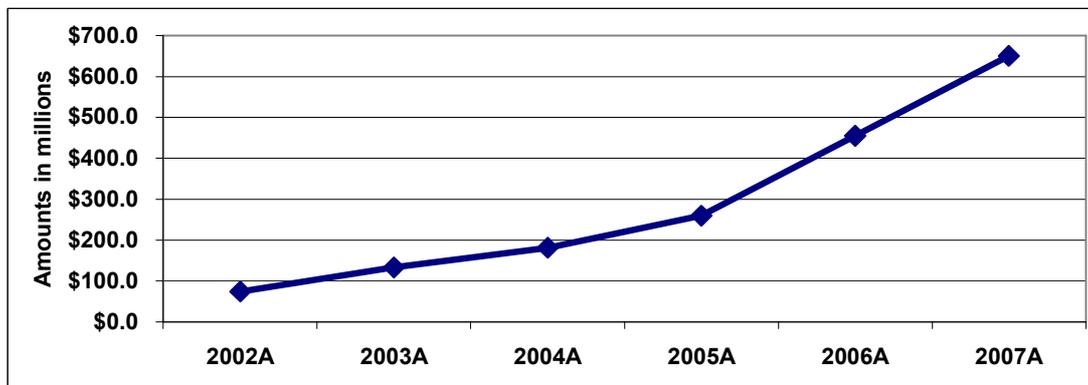
Annotations on the screenshot include:

- A red circle around the address bar with a callout box stating: "Factmonster was the 997th most trafficked website during January 2008 according to Quantcast".
- A red circle around the "Red Lobster" logo with a callout box stating: "Red Lobster and Sherman's Travel (or their agencies) arrange a buy with Casale and may or may not know what site their banner will run on".
- A red circle around the URL in the address bar with a callout box stating: "Casale Media is an ad network which has acquired Fact Monster's ad inventory (directly or indirectly) for resale to agencies and advertisers".
- A red circle around the "TRAVEL DEALS" section.

Source: DeSilva & Phillips, FactMonster.com

AOL's experience – beginning with the acquisition of Advertising.com for \$435 million in 2004 – provides a useful point of reference about the recent growth of ad networks. From less than \$100 million in revenues in 2002 to approximately \$650 million in 2007 (a CAGR of 55%), AOL's third-party ad networks (primarily Advertising.com) now account for approximately 27% of the unit's advertising and content revenues. Based upon the value recently placed on Yahoo! by Microsoft, AOL's advertising and content business could be worth as much as \$20 billionⁱⁱⁱ, and Advertising.com represents a significant portion of that value.

Table 1: AOL Third Party / Advertising.com Ad Revenues



Source: DeSilva & Phillips, Company Reports

In Context: Using Ad Networks

An ad network is fundamentally an intermediary between a publisher and an advertiser (or agency acting on its behalf). As such, it is critical to understand the motivations and methods of two different groups of advertisers – brand-based and direct – as well as those of publishers.

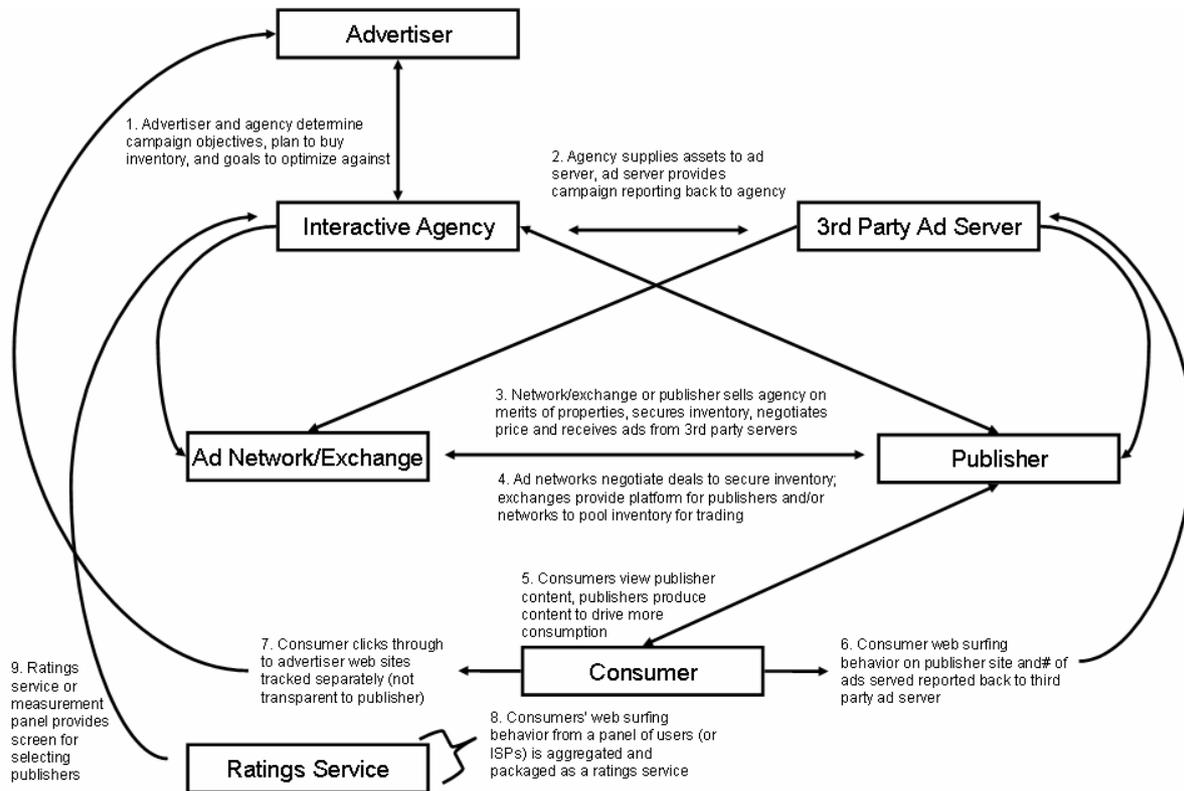
For brand-based advertisers such as P&G or Colgate, a marketing objective to communicate with a target audience is established, and this objective will be translated into a series of media campaigns which may or may not include the use of online ad inventory such as banners or rich media. Direct marketers such as LowerMyBills.com and others (including brands that are endemic to the Internet, such as Amazon.com) which are selling products or acquiring leads through online channels will develop their campaigns using online media in a similar fashion.

Balancing objectives against costs, an advertiser or its agency will use a service such as ComScore or Nielsen Monitor-Plus (and increasingly, Hitwise, Compete or Quantcast) to screen potential outlets against demographics or other characteristics of the target audience. Known historical costs will be used to develop a first pass at an optimized campaign budget, at which point sales representatives will be contacted to develop appropriate packages. A campaign may be bought well in advance of its start date, and prices may be negotiated on a CPM (cost per thousand streams), CPC (cost per click) or CPA (cost per action) basis. These premium advertisers will typically manage buys on top portals, and ad networks may be incorporated into the media mix to reduce total campaign costs or to push deeper into specific sub-segments.

Brand-based advertisers usually require portals or the large vertical publishers in order to achieve their campaign objectives, which may or may not be directly tied to sales. However, total campaign costs are better managed by blending in the use of ad networks. Online inventory prices can range from tens of dollars per thousand impressions for premium display inventory at top portals to pennies per thousand impressions at the smallest sites represented by ad networks. This leads brand-based advertisers to supplement their portal buys with ad

network buys, in much the same way that buys on cable networks are used to supplement buys on network television.

Exhibit 2: Illustration of Online Advertising Process Flows



Source: DeSilva & Phillips

For direct marketing efforts, costs per action are paramount. With this focus, a direct marketer will continuously optimize the placement of its buys. Inventory that drives desired results most cost-effectively becomes the most desirable inventory. Ad networks are a natural fit because of their efficient pricing and wide reach.

Strategies for targeting consumers also include the use of contextual or behavioral ad networks. ContextWeb and Google's AdSense are contextual networks, delivering advertisements that depend upon the content of the web site they appear on. Tacoda (now owned by Time Warner's AOL) and Revenue Science are among the best-known behavioral ad networks that place cookies in consumers' computers, identify what sites those computers visit and allow an advertiser to target individual computers (as a proxy for people).

Publishers' motivations are in some ways simpler to describe: what drives the most revenue on a risk-adjusted basis, with the most flexibility and aesthetically appropriate products? And further, what inventory should be provided to the network under what conditions?

Most ad networks have unique expertise benefiting certain types of publishers while representing little value to other publishers. For example, a vertical orientation allows an ad

sales group to focus on a select segment of advertisers, deepening relationships and expertise about specific advertisers' needs. To illustrate, Travel Ad Network may be able to sell a unit of inventory from a travel-related content publisher such as Lonely Planet to a regional tourism board such as the Maine Office of Tourism at a higher rate than if it were sold by Advertising.com as part of a bulk online buy because the advertiser is assured of the relevance of the inventory.

Third-party ad servers are another critical piece of the online advertising infrastructure, managing traffic functions for advertisers, ad networks and publishers alike. Ad servers such as DoubleClick's DART or Atlas's AdManager deliver advertisements to a site based upon the criteria that an advertiser or its agency has pre-determined. When a consumer views an ad and clicks on it, information about the click returns to the ad server and then back to the agency and its client, but not to the site's publisher.

Ad Network Business Models

Hundreds of ad networks have emerged over the past decade, each employing its own approach to monetizing the significant volume of un-sold or under-sold online inventory. The key differentiators include the degrees to which a network focuses on:

- Targeting
- Particular types of inventory
- Acquiring inventory directly or on a representation basis, and whether on an arbitrage or revenue-sharing basis
- A particular media type
- Selling on a CPA, CPC or CPM basis, whether via auction or negotiated
- A network vs. an exchange

Even among seemingly similar ad networks, underlying technology can be strikingly different. Networks frequently employ proprietary algorithms to optimize a campaign relative to its objectives. With better algorithms, advertisers achieve their objectives more efficiently in terms of total cost and publishers receive higher prices. Advertising.com's successful sale to AOL in 2004 (still one of the largest ad network sales) has been partially credited to the quality of its targeting technology, which in turn allowed it to become the dominant network in the industry.^{iv} Beyond general ad networks (which position themselves on the basis of their algorithms), ad networks sometimes emphasize their targeting capabilities on additional dimensions such as vertical, behavioral or contextual focus.

Ad networks frequently promote themselves to advertisers and publishers as capable of doing everything. For example, ad networks will generally offer some form of behavioral advertising, but few have focused on the technology or related business-model elements as much as a handful of specialist networks.

General ad networks refer to the original ad networks such as Advertising.com. Some, such as Burst Media's Burst Direct, are described as "blind" networks, as they do not allow advertisers to know which sites their messages will appear on, and many advertisers are reluctant to use them for this reason. However, most general ad networks offer some transparency related to which sites are part of a network, or allow for contextual governors to prevent an ad from appearing on a certain type of site. Other networks, such as Microsoft's

DrivePM, limit their activities by focusing only on residual inventory from a selection of large publishers. This increases the likelihood that an advertiser's message will appear in an appropriate, non-controversial environment.

Vertical ad networks are narrowly focused on specific industries. For example, Jumpstart Automotive targets auto-related publishers. (Jumpstart was purchased by Hachette Filipacchi, the publisher of magazines including *Road & Track* and *Car and Driver* for a reported \$110 million early in 2007.) Glam, a vertical network aimed at women, reportedly raised \$85 million on a \$500 million valuation, a clear indication of today's healthy appetite for funding vertical ad networks.

The divide between publisher and network can become blurry with vertical ad networks. Somewhat controversially (because Glam also owns and operates a handful of sites), Glam was included in ComScore rankings alongside traditional publishers such as iVillage, which produce or aggregate the bulk of their own content and primarily sell directly to advertisers. The direct comparison between a pure publisher and a hybrid network-publisher inevitably creates some confusion.

Although vertical networks may be technically capable of reaching consumers in numbers that are comparable to large vertical publishers, the quality of a network's affiliate-owned content is generally perceived as lower. This forces vertical networks to price inventory at a discount when compared to similar stand-alone publishers, but at a premium when compared to the tonnage rate an advertiser might have paid for the same inventory through a blind network. As well, the financial profile of a network may be very different from the profile of a comparable publisher, as publishers may choose to sign on with a network for a very short period, and operating margins will be dependent upon creating arbitrage as well as scale.

A novel twist on this approach includes the **"white label" vertical ad network**. For example, Adify has created a platform to enable publishers to develop more than 50 different vertical ad networks, allowing them to scale their own ad sales operations quickly.

Behavioral ad networks present a very different concept for brand advertisers, given their focus on demographic definitions of audiences. Behavioral advertising is based upon the notion that an advertiser should care more about a narrowly defined group of consumers viewing a message than about the context of a message or a broadly defined demographic. By using cookies to track user behaviors, profiles can be created. Alternately, the selection of sites for placing advertisements could be based upon the propensities of certain people to visit certain sites. Tacoda (now part of AOL) has been the clear leader in this space, followed by the smaller Revenue Science. Other ad networks, such as Blue Lithium (now part of Yahoo!) have prominently promoted their behavioral targeting capabilities but are primarily general ad networks.

Contextual ad networks are focused on the notion that the content of a site is important in determining what message a consumer views. Several different models of contextual advertising have taken root, including the text ads in Google's AdSense ad network (which dominates among smaller publishers) and Kontera's in-text ad network (which provides advertisements embedded in specific key words within the body of a web page).

Ad networks are also positioned in the marketplace based on what types of publishers they establish relationships with to secure inventory. For these purposes, we describe Long

Tail sites as the millions of sites which may only receive thousands of visitors a month and Mid Tail sites as the top thousand-or-so sites below the portals.

All ad networks have some degree of focus on particular types of inventory, whether unsold inventory at the top independent publishers or all inventory at Long Tail web sites. For example, Google AdSense allows any publisher to supply its inventory to the network on a self-service basis, making it cost-effective for Google to add these publishers to the network. Publishers with poorly trafficked sites then have a no-risk, low-cost approach to sell their inventory. But AdSense is also popular with larger publishers for whom text-based advertisements are aesthetically acceptable.

Others are purely focused on Mid Tail publishers. Microsoft/Atlas's DrivePM network represents unsold inventory on sites with some degree of name recognition, and offers advertisers some assurance of quality control. By managing sales to a smaller number of sites, these ad networks can actively steward campaigns and offer advertisers more transparency about the types of sites where their campaigns will run.

Perhaps the most important dimension of an ad network's business model from a financial and accounting perspective is the inventory acquisition strategy: representation, direct acquisition via revenue share or direct acquisition via arbitrage. An ad network may use different models concurrently, but most are oriented around one approach or another. For example, Gorilla Nation generally represents publishers without taking possession of inventory. DrivePM and Advertising.com primarily buy inventory cheaply and re-sell it in order to profit via arbitrage, while ValueClick, Tribal Fusion and Burst are oriented around revenue-share arrangements.^v One interesting financial note is that arbitrage may allow the network to "buy" traffic and temporarily boost its apparent scale. But unless sales rise as quickly (and payment terms don't worsen), working capital could become seriously strained.

Exhibit 3: Inventory Acquisition Models

	ADVANTAGES AND CONSIDERATIONS
Representation	<ul style="list-style-type: none"> • No inventory possession • Commission based revenues • Services business with limited fixed costs • Less scalable than alternative approaches • No technology integration
Direct - Revenue share	<ul style="list-style-type: none"> • No inventory possession • Services business with more upside revenue potential than rep model • Fixed costs to develop targeting or optimization technologies • Profitability should be more scalable than rep model
Direct - Arbitrage	<ul style="list-style-type: none"> • Inventory possession • Knowledge-based business with highest upside (and downside) potential • Fixed costs to develop targeting or optimization technologies • Cash management issues are key (must manage requirements to pay suppliers well ahead of receiving cash from buyers) • Revenues can be accelerated by cutting more favorable inventory acquisition deals • Profitability should be more scalable than rep model

Source: DeSilva & Phillips

Another variable is the media focus of an ad network. Although the bulk of networks target general online display (which is where the bulk of inventory remains) expectations of growth in new types of online assets and new related media have resulted in the development of additional types of ad networks.

Exhibit 4: Ad Network Types

	EXAMPLE
Display	• Advertising.com (AOL)
In-Text	• Kontera
Online Video	• VideoEgg
Mobile	• AdMob
In-Game	• Massive (Microsoft)
Online Radio	• TargetSpot
Blog	• Federated Media
RSS Feeds	• Feedburner (Google)
Email	• Datran
Podcast	• Kiptronic
Widgets	• Slide

Source: DeSilva & Phillips

Various models are also in place for determining the price of advertising. Costs may be negotiated or auctioned, and on a CPM (cost per thousand streams), CPC (cost per click) or CPA (cost per action) basis.

Finally, the distinction between an ad network and an ad exchange requires some discussion. Despite the reach and tonnage ad networks are capable of offering, a network's ability to fulfill inventory commitments from within a network can be a concern. Trading of inventory occurs between networks, but this is not necessarily efficient. Cutting across all of the varying business models, ad exchanges offer a solution. Microsoft's AdECN, Yahoo's Right Media and the DoubleClick Advertising Exchange (presently in beta) offer a way for ad networks to trade among themselves. Alternately, they, along with exchanges operated by AdBrite and ContextWeb (Adsdaq), allow advertisers and publishers to offer to buy and sell inventory directly, based on criteria that could be at least as precise as those offered by networks.

Although the definition of what constitutes an ad network versus an exchange can blur, the one element that seems consistent inside the exchange world is that all use a bid/ask auction approach to determine pricing. Ad exchanges as ad networks may also deliver ads to publishers faster than if inventory is fulfilled by daisy-chaining multiple ad networks together.^{vi} By reducing latency, losses of ad views and clicks are minimized, and in this way exchanges may prevent the losses of ad views and clicks.

The Strategic Role of Ad Networks and Future Directions

Ad networks can complement existing assets and competencies for strategic investors. Some Strategics, however, are better positioned than others to realize this incremental value,

depending upon how products are aligned, how technologies and relationships are levered, and how different types of inventory are packaged.

Building technology, platforms and publisher/advertising relationships internally is always an option. However, requirements for speed to market in this dynamic sector have pushed the largest players in online advertising – primarily portals, but also agency holding companies such as WPP – into an acquisition mode to realize differing strategic objectives.

Advertising.com provides AOL with a hedge against declining interest in its traditional AOL.com product, but as Advertising.com is the nearest substitute to a portal in terms of its reach and helps advertisers reduce costs relative to using Yahoo! and MSN, the ad network potentially helps gain overall market share. AOL's investments in a range of differing ad networks – Lightningcast for video, ThirdScreen for mobile, Tacoda for behavioral targeting – aggregates a portfolio of inventory types for its ad sales group to sell, along with technologies (such those acquired by ad-serving company AdTech AG) and people that can be deployed across its core networks around the world.

Other large players in online advertising began to execute on their own acquisition strategies in a meaningful way during 2007. Microsoft bought aQuantive – owner of the DrivePM ad network – and exchange AdECN; Yahoo! bought behavioral ad network Blue Lithium and the 80% of ad exchange Right Media it didn't already own; ad agency holding company WPP bought 24/7 Real Media; and Google initiated its bid for DoubleClick – having launched an ad exchange at the time – and completed an acquisition of Feedburner (for RSS feeds). Should Microsoft succeed in its effort to buy Yahoo!, the combined entity would certainly have a leadership position with many of these functions and products.

Exhibit 5: Strategic Objectives of Ad Networks

	EXAMPLE
Accessing complementary inventory	<ul style="list-style-type: none"> AOL's acquisition of Advertising.com
Achieving scale in a new geography quickly	<ul style="list-style-type: none"> AOL's attempted acquisition of Sweden's TradeDoubler
Extending ad sales competencies into new media platforms; broadening of portfolio	<ul style="list-style-type: none"> Microsoft's purchase of Massive to establish a presence in in-game advertising
Acquiring technology for application to existing platforms	<ul style="list-style-type: none"> Yahoo's purchase of Blue Lithium
Gaining insights into consumer behaviors	<ul style="list-style-type: none"> WPP's acquisition of 24/7 Real Media
Participating in traffic and technology consolidation	<ul style="list-style-type: none"> Purchases of exchanges and ad servers by Yahoo!, Microsoft and Google

Source: DeSilva & Phillips

Independent ad networks will pursue varying growth strategies in the future. Some may integrate vertically into publishing, and others will expand overseas. Those with truly unique technology will be able to expand into marketplace intelligence and analytics services.

The data captured by ad networks can provide unique insights on consumer behavior, and this may have as-yet-unforeseen benefits.

Looking at the future of ad networks, it is important to remember that they emerged as a solution to a problem: mass volumes of fragmented inventory were going unsold, and aggregating that inventory in a manner consistent with advertisers' requirements for reach and frequency produced a winning model. A market had already been established for what we would now describe as premium inventory, so advertising networks allowed cost-sensitive advertisers to optimize their spend. On other platforms, it is unclear that demand will be as robust; and to the extent that demand does emerge, the dominant players (AOL, Yahoo!, MSN, Google) won't be able to scale their existing relationships through tuck-in acquisitions.

Although speculative, ad exchanges may be a significant part of this sector's future story. If there are truly no barriers to aggregating traffic, then it is likely that hundreds of additional networks will emerge. Many of these may be "lifestyle" businesses which, though small, trade successfully on novel but dynamic factors that appeal to a specific sub-segment of the marketplace. Economies of scale may be realized in ad serving and bringing traffic together into a handful of common locations for price discovery exercises, primarily benefiting the exchanges.

But as long as there is no one-size-fits-all way to optimally monetize different types of un-sold or under-sold inventory, there will be opportunities for new ad networks with new technologies or new approaches. Although many of the ad networks in today's crowded market will not survive, those that attain scale – whether in terms of traffic, technology or relationships – will be well positioned to acquire or be acquired in the years ahead.

Appendix 1: Ad Networks – Reach and Ownership (February 2008)

Advertising Network	Rank	Reach	Parent Company
Platform-A	1	90.5%	Time Warner
Advertising.com	2	88.9%	Time Warner
Yahoo! Network	3	84.6%	Yahoo!
Google Ad Network	4	77.7%	Google
Specific Media	5	77.2%	Specific Media
ValueClick Networks	6	74.7%	ValueClick
Tribal Fusion	7	71.6%	Exponential Media
Casale Media Network	8	66.2%	Casale Media
DRIVEpm	9	55.4%	Microsoft
Adconion Media Group	10	53.4%	Adconion Media Group
Traffic Marketplace	11	51.7%	Connexus
24/7 Real Media	12	49.1%	WPP
ADSDAQ by ContextWeb	13	48.3%	ContextWeb
Burst Media	14	47.8%	Burst Media
AdBrite	15	46.3%	AdBrite
Collective Media	16	43.3%	Collective Media
interCLICK	17	43.1%	Customer Acquisition Network
Vibrant Media	18	41.2%	Vibrant Media
CPX Interactive	19	38.9%	CPX Interactive
Undertone Networks	20	32.2%	Intercept Interactive
PrecisionClick	21	27.8%	2KDirect
Kontera	22	27.4%	Kontera
AdDynamix.com	23	25.3%	YBrant Digital
Turn, Inc	24	22.9%	Turn
Vizi Media	25	20.7%	Vizi
Red McCombs Media	26	14.2%	Red McCombs Enterprises

Source: DeSilva & Phillips, ComScore

Appendix 2: Recent Venture Investments in Ad Networks

Company	Investors	Focus	Announced	Amount (\$mm)
Glam Media	Burda Media, GLG Partners, DAG Ventures, Hercules Technology Growth Capital	Vertical	Feb 2008	\$85.0
Adconion	Index Ventures, Wellington Partners	General	Feb 2008	\$80.0
Ringleader Digital	W2 Group	Mobile	Feb 2008	\$6.0
SpotXchange	Angels	Video	Feb 2008	n/a
AdInfuse	SoftBank Capital, ComVentures, Storm Ventures	Mobile	Jan 2008	\$12.0
Slide	Mayfield Fund, Blue Run Ventures, Khosla Ventures and Founders Fund	Widget	Jan 2008	\$50.0
Broadband Enterprises	Velocity Interactive Group	Video	Jan 2008	\$10.0
Tremor Media	Canaan Partners, Masthead	Video	Jan 2008	\$11.0
Specific Media	Francisco Partners	General	Nov 2007	\$100.0
Millennial Media	Charles River Ventures, Bessemer Venture Partners, Columbia Capital	Mobile	Nov 2007	\$15.0
Collective Media	Greycroft, iNovia Partners	General	Oct 2007	n/a
Turn	Norwest Venture Partners, Trident Capital and Shasta Ventures	General	Oct 2007	\$8.0
Waterfront Media	Scale Venture Partners, Foundation Capital, Rho Ventures, Time Warner Ventures, BEV Capital, and Neocarta Ventures.	Health Vertical	Sept 2007	\$25.0
Federated Media	JP Morgan, Omidyar Network	Blog	Aug 2007	4.5
NebuAd	Menlo Ventures	Behavioral	July 2007	\$5.1
Mochi Media	Accel Partners	Gaming	July 2007	n/a
IGA	Peacock Equity (NBC), Intel, KTB Ventures, Easton Capital, Morgenthaler Ventures, DN Capital	Gaming	July 2007	\$25.0
Adap.tv	Redpoint Ventures, Gemini Ventures	Video	July 2007	\$10.0
Payperpost	DFJ, DFJ Gotham, Inflexion Partners, Village Ventures	Blog	June 2007	\$7.0
Greystripe	Steamboat (Disney)	Mobile Gaming	May 2007	\$8.9
Podbridge	Sutter Hill Ventures, Mayfield Worldview Technology Partners	Podcast	April 2007	\$8.5
Adify	Peacock (NBC), US Venture Partners, Venrock Associates and Time Warner Investments	Vertical	April 2007	\$19.0
VideoEgg	WPP	Video	April 2007	n/a
Adconion	Wellington Partners	General	April 2007	n/a
Teracent	KPG Investors	Vertical	March 2007	\$5.0
Active Athlete Partners	KPG Investors, Alsop Louie Partners	Vertical	March 2007	n/a
Brightroll	True Ventures, angels	Video	March 2007	\$1.0
YuMe Networks	Khosla Ventures, Accel Partners, and BV Capital	Video	March 2007	\$7.0
AdMob	Accel Partners, Sequoia Capital	Mobile	March 2007	\$15.0
Millennial Media	Bessemer Venture Partners, Columbia Capital	Mobile	Jan 2007	\$6.3

Source: DeSilva & Phillips, Company Reports, TheAlarmClock.com

Endnotes

¹ See appendix 2 for a comprehensive list of ad networks which received funding during 2007.

² Compete.com (<http://blog.compete.com/2006/12/19/long-tail-chris-anderson-top-10-domains/>) references the top ten domain names' share of total internet page views, which grew from 31% to 40% from 2001 to 2006, primarily due to the rise of social networks such as MySpace.

³ Assuming that AOL's access business generates a 40% OIBDA (Operating Income before Depreciation and Amortization) margins (the much smaller United Online's ISP business generates OIBDA margins of approximately 35%) on \$2.8 billion in revenue generated during 2007, the access business was responsible for \$1.1 billion of AOL's \$2.0 billion in total OIBDA, and the remaining business components based upon content and advertising generated \$900 million. This is slightly less than half of Yahoo!'s reported OIBDA, which totaled \$1.9 billion in 2007. In the aftermath of Microsoft's bid for Yahoo!, the latter company's equity value is approximately \$40 billion, representing a 21x EV/OIBDA multiple on a trailing basis. On similar valuation multiples, AOL could justify a \$20 billion valuation for its advertising and content businesses, although a discount could be applied, given AOL's less favorable competitive position relative to Yahoo!

⁴ See <http://www.startup-review.com/blog/advertisingcom-case-study.php>

⁵ Source: <http://www.imediaconnection.com/content/9627.asp>

⁶ Smaller ad networks may promise advertisers a minimum number of impressions or reach in a given time period. If the sites within their own networks are unable to deliver, these networks will buy inventory from other networks. The extra processes required to deliver advertisements may add noticeable amounts of time. Buys managed by an exchange may avoid this problem.

DeSilva + Phillips, media investment bankers specializing in the media and digital media industries, has completed nearly 200 transactions with a total value of over \$8 billion. Our Digital Media & Technology Group covers the M&A and corporate finance marketplace for electronic content in its many forms, including web-based publications, specialized search engines, online video, advertising, lead generation, e-commerce, integrated marketing, and business intelligence services.

Please contact Jay MacDonald, Jeff Dearth, or Ken Sonenclar for more information.