Lies, Damned Lies...

The unpredictable world of online marketing & web analytics

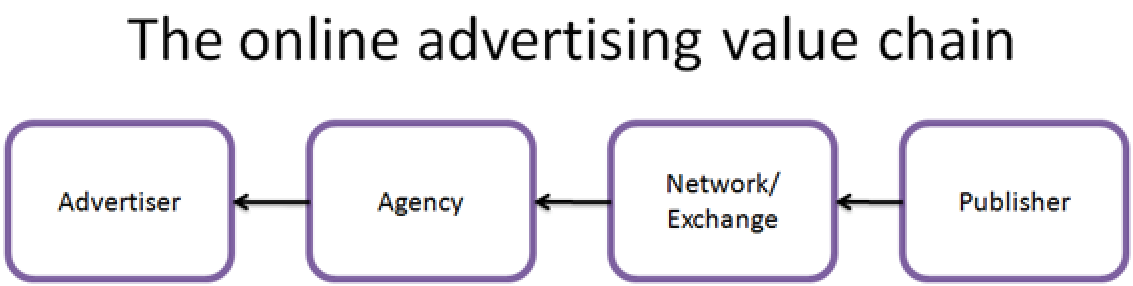
June 02, 2008

Online Advertising Business 101, Part I - The Online Advertising Value Chain

When you spend as much time as I do examining the workings of the online ad industry, it's easy to forget that, to many people, it really is pretty opaque. Not only is it characterized by some of the most complex and scalable technology in the world, but it also has its own, pretty unique, economic model to boot.

I've lost track of the number of times I've been asked by people, even super-smart colleagues from within Microsoft, "so, how does the online ad industry actually work?" So I thought I would attempt to provide a bit of a primer through the medium of this blog. Who knows, maybe someone will read it and offer me a book deal ;-)

In this first installment, I'm going to take a look at what I call the online advertising value chain:



This is a simplistic view of the industry, but it does enable us to understand where the key players sit; on the demand side of the value chain, there are advertisers, and their agencies; and on the supply side, publishers, and ad networks (and/or ad exchanges).

What's the product?

Before I get onto the content of the boxes in the above diagram, though, we should be clear about what's in the arrows; that is, what's traded in this market? What's the actual product, here?

The answer is advertising inventory. There are no very good definitions of advertising inventory out their on the Internet (Dave Chaffey offers one of the better ones), so I offer my own definition:

> Advertising inventory is the supply of opportunities to display advertising in a particular medium.

Most people would use the term "ad impression" instead of "opportunity to display" - the reason I haven't is because I don't like to offer a definition of a term which contains another term that you may need to go and look up. The most common definition of ad impression is this:

> An ad impression is a single viewing of a single ad by a single individual.

(Another reason I didn't use it is because it fails to capture the increasing complexity in ad inventory as online advertising evolves. For example, if you're serving video ads, and the user watched half of your 30-second pre-roll ad, was that an ad impression?)

In our value chain above, it's the Publishers who are the creators of advertising inventory. By building websites or software apps or video games or e-mails which are seen by lots of people, and inserting ads into these environments, publishers create a constant stream of ad inventory which, of course, they are looking to sell to advertisers. Agencies and Networks merely help the process along.

Online ad inventory is a very interesting type of good (to use the economics term). It has an incredibly short shelf life (measured in milliseconds as a page loads), but its supply is only indirectly under the control of publishers; external factors (such as a very newsworthy event) can dramatically impact the amount of inventory that a publisher has to offer. As a result, inventory prediction is a major task for publishers; I'll be returning to this topic in a future installment.

Calculating ad inventory

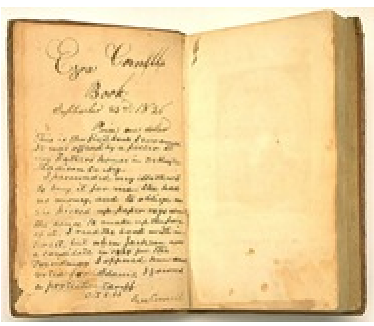
Another useful way of understanding ad inventory is to look at a simple example of how it's calculated. Imagine a pretty straightforward website (this blog, for example), showing pretty simple ads, with no fancy auto-refresh stuff going on (i.e. once a page is loaded, the ads don't change, so for each page impression, you get one batch of ads). How much ad inventory is created?

The answer to this is dependent on two variables - the number of page impressions on the site, and the average number of ads per page. So, for example, if my blog generated a million page impressions per month (I wish), and had an average of 5 ads per page, then the total ad inventory (if you're just using a simple ad impression model) is 5 x 1m = 5m ad impressions per month.

The Players

Now that we understand what's being traded, let's take a brief look at the major players in the value chain, and then I'll let you get back to whatever it was you were doing before you started reading this post.

The Publisher



We've already covered this guy. He's the one with the site, or the game, or the mobile portal, who is creating ad inventory and wants to sell it to advertisers to provide income for his business. Publishers are interested in maximizing revenues, but also at minimizing risk - they hate to have unsold inventory (that is, ad space with no ads in it) so they employ a number of tactics to ensure that at least something gets shown in an ad unit that they can get a little money for.

Larger publishers have their own sales teams who maintain direct relationships with advertisers and their agencies, cutting deals for big blocks of advertising inventory over expensive lunches in chic Greenwich Village restaurants. But this model only works for big publishers selling to big advertisers. Small publishers can't afford to maintain their own sales force, and even if they did, they'd never get through the doors of Ford, or CapitalOne, because they don't have enough inventory to be of interest on their own account. So these guys sell their ad inventory through Ad Networks.

One other kind of publisher it's worth calling out here is the search engine - i.e. Google, Yahoo and Microsoft. These search engines are the creators of huge amounts of ad inventory that is sold directly to advertisers and agencies, as well as running significant ad networks (see below).

The Ad Network

Ad Networks are essentially outsourced sales houses for publisher inventory. An ad network strikes deals with lots of publishers for their inventory and then aggregates this inventory and sells it on to advertisers and agencies. There are over 300 ad networks in existence today - a breathtakingly large number which is sure to fall soon.

An ad network's value proposition to publishers is that it can sell inventory that the publisher can't sell itself - either because the publisher is small (and so doesn't have its own sales force), or, in the case of larger publishers, the inventory is of too low-value to merit direct selling. This kind of inventory is called remnant inventory.

The network's value to an advertiser is that the advertiser can appear on lots of sites across the Internet (potentially thousands) without having to establish direct relationships with those publishers individually.

At bottom, the Ad Network business model is to buy inventory cheaply and sell it on at a higher price. There are a variety of ways of doing this, some of which I've covered before. One of the most promising is to add value to the ad inventory by adding targeting data (so that the impression can be sold for a higher price). I'll cover this in a future installment.

Networks come in all shapes and sizes. There are 'premium' networks which work with remnant inventory for large publishers; there are vertical networks which focus on a particular industry or technology (such as video); and, at the bottom end, there are contextual networks which provide an auction-based marketplace for selling keyword-based ads on small sites. You may have heard of the #1 network in this space - it's called Google AdSense.

The Advertiser

Advertisers also come in all shapes and sizes, of course. The big name advertisers - the folk we've all heard of - will have significant internal marketing departments, and will also likely retain the services of an agency to help them manage their marketing. Their marketing objectives will likely be a mix of brand marketing (raising general awareness) and direct response marketing (getting someone to actually buy something online now).

Smaller online advertisers are almost always focused on direct-response - getting someone to click and buy, or possibly call up. By and large, these folk can't afford to retain an agency to do their marketing for them, so they tend to go straight to certain ad networks or publishers to buy their ads. Again, the #1 in this space is our friend Google, with AdWords (the advertiser-facing side of the AdSense network).

Advertisers are motivated by getting the best ROI on their ad investment; but amongst larger advertisers some other curious motivations creep in, like wanting to make sure that a committed ad budget for a quarter actually gets spent (so that budget isn't cut the following quarter). This drives the behavior of ad agencies, to an extent.

The Agency

Last but by no means least, the media agency is an essential intermediary in the advertising value chain. Ad agencies usually do one of two things (or both, such as is the case with our own Avenue A|Razorfish): they create ads (anything from designing an animated banner to filming a 30-second TV ad) - known as the creative business - and they buy the media (i.e. the ad inventory) to display the ads (known as the media business). Whilst the creative side is cooler, the part of ad agencies that is relevant here is the media business.

A media agency, then, is one that buys media on behalf of its advertiser client. The advertiser typically says "I have x million dollars this quarter for online, and this campaign I want to run. Buy me the best media to reach my target audience". It's then the media agency's job to plan a media buy that will deliver the best return for the advertiser.

At the small-business end of the spectrum, the 'media agency' morphs into small SEM (Search Engine Marketing) shops who are good at buying Google AdWords, and maybe have some SEO (Search Engine Optimization) skills to boot to boost a company's natural search rankings.

Media agencies' motivation is driven by getting as much media under their control as possible, since they're paid (particularly at the high-end) with a cut (usually something like 15%) of the advertiser's media budget. They also don't want to under-spend on the budget they've been given, as this can annoy their client (see above).

Media buying is a manual, labor-intensive process right now, and one I'll come back to. Improvements to technology will mean that agencies (especially larger ones) will have to do some pretty fancy footwork to continue to add value for their advertiser clients.

That's it for now. in future installments, I shall be looking at the key players in a bit more detail, and looking at some of the interesting economics which underpin the industry. In the meantime, if you have a comment, or something you'd like me to cover, leave a comment.

[Update 6/3/08: A little more info on Ad Networks added]

Online Advertising Business 101 - Index of all posts

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Tracked on June 03, 2008 at 07:05 AM
» Online Advertising 101 - For Web Sites from MetaMuse
There are a large number of Web startups relying on an advertising revenue model, many of whom may not understand the landscape. For them, I think I have a fairly sound and business-oriented way to describe the online ad space, [Read More]

Tracked on August 18, 2008 at 09:51 PM

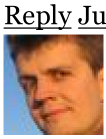
Comments

Clint said...
Ian,
nice summary of the ad market.

As long as we're offering alternative definitions of ad inventory, here's mine;

ad inventory is the supply of potential customer touch-points available in a given system

Reply June 02, 2008 at 02:03 PM



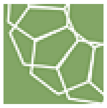
ian_d_thomas said...
That's another nice definition, Clint. But how would you define a touch point? Can you think of an example of a touch point that is not an ad?

Reply June 03, 2008 at 10:46 AM

Clint said...
Ian, depends really, now we get into the realm of provisos and caveats and limitations. From my POV, any touchpoint

with a (potential) customer is advertising. However in the context of ad inventory and to fit within the context of your market definition, maybe we could say that inventory is the supply of potential customer touchpoints that are for sale?

Reply June 04, 2008 at 12:35 AM

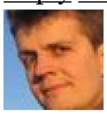


Mike Nolet said...

Nice post. I will point out that on your diagram you should really have two sets of arrows between boxes. There's a flow of impressions that goes one way and a money flow the other way. I've found that you can generally identify whether someone is "tech" or "business" by simply drawing the four boxes and asking the person to draw the arrows.

My Blog: www.mikeonads.com

Reply June 04, 2008 at 09:10 AM

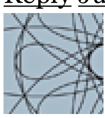


ian_d_thomas said...

Mike,

Yes, you're right that I am a techie at heart (though have spent a lot of time on the business side). I suppose I think of the arrows going that way because that's the direction that the goods are shipped in, and also, in a value chain, I'm thinking that the publisher provides value to the network, who provides value to the agency, who provides value to the advertiser. But I shall try your test out on my colleagues and see what comes out..

Reply June 04, 2008 at 02:05 PM



SEO Pune said...

Good post

Reply June 05, 2008 at 05:24 AM

John DeMayo said...

Excellent primer. I believe your arrows are indeed correct given the title "value chain".

Reply June 06, 2008 at 07:53 AM

mz said...

which modern and not too expensive banner administration system would you recommend?
it is important to purchase one with is the most easy to use, where creating subdirectories for various campaigns of the same clients is not a problem.
At the same time clients could get instant access to to their statistics without seeing other unnecessary stuff. Then Rich Media Features is a must as expandable banners etc. with combinations of different sites included. Please let me know.

Reply June 11, 2008 at 07:52 AM

Mark Hanson said...

Great Post

I look foward to reading your future installments.

Reply June 16, 2008 at 01:07 PM

Barry Chu said...

Hi Ian,

Saw your post through Mike's post - good stuff! I thought I'd take a shot at expanding some of the value chain analysis and referenced your post here:

http://barrychu.blogspot.com/2008/06/advertising-value-chain-201-why-google.html

Would love to get your thoughts if you have the time!

Reply June 25, 2008 at 07:38 PM

vinay said...

can you give me the links where i can find technical details of how video ads are served?

Reply July 03, 2008 at 06:48 AM

MK said...

A very useful series of posts.

A note on your terminology: the proper term for what you refer to as "value chain" is actually "supply chain".

Reply July 14, 2008 at 03:12 PM

Gareth Brown said...

Ian hi,

Thanks for making this simple to understand - very useful.

Regards, Gareth

Reply July 29, 2008 at 08:04 AM

Amy said...

Very helpful, comprehensive overview of the landscape. Thanks!

Reply August 08, 2008 at 11:16 AM

Nisha Bhatia said...

Hi Ian,

Nice summary of online advertising market..just one question where does programs like Google Adwords and Microsofts adCenter fit into the value chain.

Reply August 19, 2008 at 04:52 AM

Jordan Mitchell said...

Nisha, Google AdWords/AdSense is basically a network, connecting [primarily] long-tail advertisers with [primarily] long-tail publishers.

I wrote a post yesterday on the landscape/market, but not "value chain" oriented -- it's more of a simple quadrant analysis mapping the continuum of advertisers (big $ vs. long-tail) to publishers/sites (horizontally vs. vertically focused). I point out where most traditional ad networks focus vs. programs like AdSense. It's at http://blog.othersonline.com/2008/08/online-advertis.html if you are interested.

Ian, linked to your post too, and would appreciate your comments!

Reply August 20, 2008 at 09:36 AM

Marco Bonanni said...

Really liked this article. Has a great way to illustrate the similarity from the product to consumer chain as it relates to Online Advertising and Internet Marketing (http://www.freekii.com). Online Advertising is quickly becoming efficient much faster than the product supply chain did over the last 50 years.

Reply November 12, 2008 at 04:32 PM

Comments on this post are closed.