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Ad Tech: New Ending for Sad Story?

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In our first sector note, *Ad Tech: Brash Boys* (Jul. '14), we said consolidation was inevitable, and forecast challenges for ad-tech stocks after too many over-hyped IPOs. M&A continues to reduce companies, if not capacity in the market in '15, with purchases by Verizon, Comcast, Oracle, Twitter and Nielsen, alongside ad-tech vendors like Rubicon. **One key theme at DMEXCO was companies *still* looking to grow by acquisition, esp. buying mobile technology, while a dozen private firms claim to be "at scale" and "profitable" but wisely wary of IPO-ing.** Few companies have real mobile technology, and acquirers do not want to pay multiples of ad sales. **The other key theme was how advertisers and vendors alike are sharpening focus on quality:** if industry "observers" like the IAB are honest, this will reduce growth rates, with less remnant inventory sold at low ROIs, while many companies aim to better measure mobile usage (with ad spend shifting to mobile in-app). We cover six main points here:

1. **Programmatic has been over-hyped**; it affects a small portion of ad spend.
2. **Most advertisers buy publisher inventory based on just ~5 variables** (e.g., location, apps, gender, time).
3. Attribution got too complex; **advertisers are now setting clear business goals** (sales or brand uplift, etc.).
4. **Ad tech IPOs have been awful**, more M&A is badly needed but unlikely to create value.
5. **SaaS models are pursued for revenue stability**, but monthly fees alone – without volume – are not enough.
6. **Ad blocking is a complex issue, not a cause for panic.** It could improve ad quality, but trim market growth.

We have no reason to change our views of Google, Facebook and Criteo as Best Idea Longs:
We discuss Google and Facebook as the "New Walled Gardens" in more detail below.

- **Google was criticised for DoubleClick Bid Manager's policies and technology,** but has the deepest reach and intent data. Changes were seen as an evolution to a media/content distribution model around YouTube.
- **Facebook is already seeing arbitrage with Instagram,** while having large pools of time spent to monetise. Brands with large follower bases (Nike 23m, Victoria's Secret 22m) still use direct messages on Instagram.
- **Criteo was widely praised as a technology leader,** thriving outside Google/Facebook's New Walled Gardens. It continues to work with clients on these platforms (as customers of them), while also placing third-party ads.

Nor do we see reasons to change our view of Twitter as a Best Idea Short:

- **Twitter may overstate US MAUs,** due to VPN access from countries where it is blocked; every other vendor believed the portion of machine-generated traffic on Twitter was far higher than the 5% claimed by the company.

We also got valuable feedback on ad businesses of eBay, LinkedIn, Yahoo, Amazon and many smaller firms, and on the rising involvement of telcos, broadcasters, consultancies and software vendors.

First, the Street Swallowed the Programmatic Hype… Too Early!

In support of ad-tech IPOs, everyone was told "programmatic" is the future. Just not yet. Numerous execs suggested large brands are allocating spend ~30% to digital, with 15% going to search, another 10% for various social platforms, leaving 5% or less for programmatic, or automated buying. Advertisers will not invest huge amounts of time in this complex field to "optimise" a few percent of spend. And the whole concept has been mis-sold as a panacea, when it simply reflects automation of workflow (i.e., buying ads) and "optimised" (lower cost) purchasing. Unlike the financial markets, buying with program trading can also involve chains of 10-20 intermediaries, while publishers' inventory is "shown" to hundreds of DSPs. **The Great While Whale of TV spend moving programmatically was seen as years away for most mainstream content, even as media companies are setting up private marketplaces to get higher prices from quality advertisers, rather than just dumping it onto auction sites.** There is no evidence that traditional linear TV markets are moving programmatic, yet a more immediate trend was content owners are selling ads distinctly for digital and linear TV audiences (with so many "viewers" coming via the web or apps). Companies like RTL bought SpotX to build up their capability, while Comcast bought Visible World, and described itself to one ad-tech exec as "a data company".

At or around DMEXCO we met the following companies: AppNexus, Criteo, eBay, eXelate (Nielsen), Facebook, Flurry, Fyber (RNTS), IPonWeb, Matomy, MediaMath, Mediacom, OpenX, Opera, Shazam, Sonata Local, SpotX, The Trade Desk, Videology, and a number of others. **We will see more companies at adweek NY and in SF in the coming week.**

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Second, Most Advertisers Buy Based on Five Variables, Not Quadrillions

For all the discussion of the hyper-targeting ad-tech offers, advertisers generally buy publisher inventory based on a few parameters (location, time of day, demographics of the site/apps, or based on other apps on smartphones). This makes a further mockery of the "promise of programmatic." As we note above, few advertisers can afford to spend time and hire technical staff to select among these variables, even if they are not always comfortable outsourcing this to agencies or buying managed services from ad tech firms. **For the moment, the industry is being given far too much choice to effectively use, in buying "custom audiences" and then measuring the granular impact of those purchases.**

Third, Attribution Still Dodgy, But Does It Matter?

Asking Google or Facebook to "optimise" ad buying is akin to letting them write, take and grade a test. Very little insight and data is allowed out of these "New Walled Gardens". Google's AdMob gives some insights, but AdSense far less, while Facebook gives insight with ~15% error rates. Advertisers have begun eschewing "lack click attribution", instead trying to more tightly specify business goals (e.g., a brand awareness or sales uplift, often using A/B testing) and budgeting spend against it. For all its flaws, advertisers still rely on panel-based attribution (e.g., Nielsen, ComScore and many others). As advertisers get more sophisticated about buying via multiple channels and using A/B or suppression testing (not showing ads to 10% of a target group), they are slowly moving away from trying to track every click through the purchase funnel. Ad agencies are also building up their own data teams to try to improve (and standardise) multi-screen and -channel measurement. **The next important step is to get consistent unique IDs on mobile devices, covering apps, mobile Web usage, and also matched to desktop usage, supporting more "deterministic" attribution, rather than "probabilistic" (i.e., playing the "odds").**

Fourth, M&A/IPOs Likely to Flop, But Doesn't Chasten the Bankers!

After mega-deals taking out Conversant and Publicis in '14, we see yet another wave of M&A in '15: Verizon bought AOL, then Millennial Media (for $4.4bn and $0.3bn, respectively), Twitter bought TellApart for $533m, Nielsen acquired DMP eXelate for ~$250m, and Rubicon boosted growth buying Chango (for $122m). Comcast bought ad-tech firm Visible World, and measurement specialist TUNE bought Artisan. Multiple vendors seem keen to find small mobile technology companies, even if most of them boost "gross revenue" by low-margin ad sales. **There are also new "classes" of buyer stepping in: telcos/cablecos, enterprise software vendors, and expected soon, consultancies like Deloitte and Accenture.** Leading DMPs were bought by Nielsen and Oracle as well as ad-tech vendor Rocket Fuel. Another wave of private companies are feeling pressure from VCs that funded them from '08-'11, with exits now hard to find. **The sole 2015 ad-tech IPO in U.S., MaxPoint, came to market at $11.50 (brought by Goldman, Deutsche, and PacCrest) and now trades at $4.45.** Among the long list of private ad-tech firms, there are those still sounding brash – often disparaging rivals – AppNexus, Videology, MediaMath, The Trade Desk, OpenX, Nanigans and PubMatic, while others have gone quieter than earlier days (DataXu, TURN, MediaOcean, InMobi, Quantcast, Fiksu, Smaato, etc.). This is not a great advertising for IPOs: out of the 19 ad tech companies we track, only four (Criteo, Rubicon, TubeMogul, Opera, the latter being a mixed ad-tech/browser business) trade above their issue price (see Table 2). **Unlike apps usage or other Internet services, ad tech is uniquely hard to analyse given the sheer number of private companies (up to 200 DSPs) and the fact that many of them can book (gross) revenue on the same "sales."**

Fifth, SaaS – Ad Tech Becomes Marketing Tech

Ad-tech is fast becoming a commodity, a sad comment on an industry that sold itself as the product of PhDs in AI and machine learning. Yet to cushion against the wild volatility of I/OS, volume-based deals and campaigns, many companies are trying to move to a SaaS (software as a service) model, to give them a base of recurring revenue. Yet this is yet another buzzword as it is "quasi"-SaaS, i.e., small monthly fees and a percentage of media volumes. We think most DSPs are in some manner trying to introduce upfront SaaS fees by 2017, aiming to convince large enterprises to standardise on their "platforms" with media spending on top, with lower mark-up margins (i.e., take rates). **Ad tech is moving into a digital marketing and enterprise software business, even if the SaaS model cannot support most of the companies trying to push it. We expect IBM, consultancies like Deloitte and Accenture, and other software vendors to follow Adobe, Oracle and Salesforce into this space.**

Life Involves Trade-offs. Ad-tech still remains a highly fragmented space. "Publishers" want complete solutions for video, in-app, native, etc., and to get paid at good rates, while "Advertisers" need more sophistication and one-stop-shop products are often diluted when they widen focus to more segments and channels. Only a few companies manage to play both sides, as DSPs, SSPs, and exchanges in between, or offer both managed services and self-serve products. **Unlike other markets, ad-tech may see a dozen companies buying and reselling the same publisher inventory, to eventually sell to an advertiser, with little chance this gets resolved soon.**

Sixth, Ad-Blocking Touches a Nerve, But a Complex Negotiation

Over the past few weeks, Apple's iOS9 changes and several reports fanned the flames that the digital advertising world would find itself blocked. **This overstates the risks in several ways.** First, it will **not affect in-app ads**, which are 90% of mobile time spent, according to Flurry. Mobile web is a diminishing part of ad inventory, even if much more work is needed on in-app monetisation strategies, and only a small portion (we est. 1-2%) of the 1m+ apps really matter in terms of audiences at scale. Second, **there is a consumer trade-off between free, ad-sponsored content and paid content**; the vast majority of users drop away at the first sight of a paywall. The digital ad industry expects consumers will "get" this social contract. Many also criticise paid ad-blockers for charging users for something that at the same time takes revenues away from publishers, which clearly depended on ads to provide "free" content, and we have seen one of the early and successful ad-blockers being pulled from the App Store, seeing a founder becoming conscious of the social contract. Third, **some sites will use anti-ad blocking software, which prevents content from being seen if ads are also blocked**, while other programmes like AdBLock are simply extortion vehicles, getting publishers to pay to be on a "whitelist." There are also challenges in getting proper measurement of apps usage, with Flurry, Opera, AppAnnie, Millennial, ComScore, Fyber and many others aiming to have code on the widest possible number of mobile devices.

Google and Facebook: Not Always the First Choice

There is a natural "meme" that says these giants are dominant and will remain so. **We are now calling them the "New Walled Gardens" given how Google is requiring advertisers to use DBM, and Facebook is starting to "sell" Instagram and begins to roll out Atlas.** Yet even in this world, they remain only a portion of the market, and while advertisers already write large invoices to Google on Search and Facebook on Social, they naturally aim to spread ad spend more broadly. One of the critical points we hear from advertisers especially on the performance side is Google's lack of suitable properties for re-targeting ads (YouTube, Maps, Gmail don't work for retargeting, Search only to a certain extent with text-based retargeting), which means to deliver ads, they have to buy ad inventory from third-party publishers. And while Criteo, Matomy and others have large networks of associated publishers (i.e., aiming to get "first-look" on inventory, and take in CRM data from some advertisers), those publishers don't want to partner with LiveRail (Facebook), Admob, Admeld (both Google) and others, as their owners are competitors (and publishers don't want to grant insight into their pricing, fill-rates, traffic, etc.). **Google's DoubleClick Bid Manager was criticised for technical failings and in the way advertisers are obliged to use it to buy YouTube ads, alongside other ad inventory.** Facebook and Google both work with millions of advertisers in a highly standardised manner, while Criteo (8,600 clients) or AdRoll (~15,000) focus on technical integration and sales focus on smaller clients. Criteo/AdRoll focus mainly on re-targeting, while Google and Facebook offer a full product range cross-channel (the dilution of product we mentioned above). While Google has powerful search intent data (Facebook's intent data is far weaker), neither have first-party shopping data and history from advertisers, making it harder for them to build a cross-product/cross-vertical knowledge base of what customers might buy. **This shows natural limits to Google and Facebook's dominance, with other vendors like Amazon and eBay gradually building their own third-party ad networks, while both companies are cautious about breaching privacy rules on data they hold.**

Other larger Internet brands such as **Yahoo**, **AOL** or **Twitter** face similar problems in playing both sides, and many publishers simply don't work together with their SSP, attribution or exchange solutions. One reason why page loads are slow in Yahoo is that they spend several seconds trying to sell all the display inventory they can, while many of AOL's O&O content properties (e.g. HuffPo, TechCrunch) handle their own ad purchasing. **Twitter's** MoPub grew into a $400-$500m gross revenue mobile exchange, netting some ~$120-150m, but since the majority of the founding team left, market participants claim MoPub is overcharging with a 20-25% take rate, while some publishers look for new independent alternatives. **Amazon** runs a large ad network for third-parties, but will not share first-party data, though its sub-brands do, and also work with re-targeters. **eBay** is also bringing native ads to its sites and apps.

Table 2: Peer Group

	Ticker	Price (IPO)	Price 23/09/2015	Currency	Perf. since IPO	Target	Rating	Market Cap (USD)	Peak Market Cap (USD)	Perf. since Peak	EV/Sales 2015	EV/Sales 2016
blinkx	BLNX-LON	0.45	0.26	GBP	-42%	NR	NR	$161	$1,250	-87%	0.3x	n.a.
Brightcove	BCOV	11.00	5.22	USD	-53%	NR	NR	$171	$676	-75%	1.0x	1.0x
Criteo	CRTO	31.00	40.34	USD	30%	$60	Long	$2,633	$3,512	-25%	4.4x	3.1x
Crossrider	CROS-LON	1.03	0.66	GBP	-36%	NR	NR	$150	$263	-43%	0.8x	0.6x
Marchex	MCHX	6.50	4.03	USD	-38%	NR	NR	$172	$903	-81%	0.5x	0.5x
Marin Software	MRIN	14.00	3.57	USD	-75%	NR	NR	$132	$511	-74%	0.8x	0.8x
Matomy	MTMY-LON	2.27	1.10	GBP	-52%	NR	NR	$157	$336	-53%	0.6x	0.6x
MaxPoint	MXPT	11.50	4.24	USD	-63%	NR	NR	$111	$271	-59%	0.9x	0.7x
Millennial Media	MM	13.00	1.74	USD	-87%	NR	NR	$247	$1,547	-84%	0.8x	0.8x
Opera	OPERA-OS	10.00	47.74	NOK	377%	NR	NR	$837	$1,975	-58%	1.4x	1.1x
Rocket Fuel	FUEL	29.00	5.43	USD	-81%	$15	Positive	$230	$2,196	-90%	0.4x	0.4x
Rubicon Project	RUBI	9.05	14.88	USD	64%	NR	NR	$649	$802	-19%	2.2x	1.7x
Sizmek	SZMK	9.50	6.22	USD	-35%	NR	NR	$186	$398	-53%	0.6x	0.6x
Taptica Intl.	TAP-LON	1.53	0.64	GBP	-58%	NR	NR	$63	$169	-63%	0.6x	0.4x
Tradedoubler	TRAD-OME	106.00	6.55	SEK	-94%	NR	NR	$33	$912	-96%	n.a.	n.a.
Tremor Video	TRMR	10.00	2.06	USD	-79%	NR	NR	$108	$544	-80%	0.2x	0.2x
TubeMogul	TUBE	7.00	11.02	USD	57%	NR	NR	$369	$678	-46%	1.8x	1.4x
YuMe	YUME	9.00	2.69	USD	-70%	NR	NR	$93	$342	-73%	0.2x	n.a.
Ad-tech										**Mean**	**1.1x**	**0.9x**
										Median	**0.8x**	**0.7x**
Facebook	FB	$38.0	$94.0	USD	147%	$109	Long	259,451	272,817	-5%	14.3x	10.7x
Google	GOOG	$85.0	$622.4	USD	632%	$800	Long	429,726	479,582	-10%	4.9x	4.3x
LinkedIn	LNKD	$45.0	$196.9	USD	337%	$171	Negative	25,244	33,465	-25%	7.8x	5.8x
Twitter	TWTR	$26.0	$26.8	USD	3%	$26	Short	17,567	37,584	-53%	7.1x	4.8x
Yahoo	YHOO	$13.0	$29.7	USD	129%	$54	Positive	28,193	50,675	-44%	4.5x	4.5x
Yelp	YELP	$15.0	$23.1	USD	54%	$34	Neutral	1,724	6,893	-75%	2.6x	2.0x
Internet										**Mean**	**7.7x**	**6.0x**
										Median	**7.1x**	**4.8x**

Source: FactSet, Arete Research estimates. Based on FactSet consensus for Not Rated stocks.

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Overall Industry Risks: The ad-tech industry is highly fragmented, lacking transparency, and spans a wide range of advertising agencies, Internet services, enterprise software vendors and pure-play companies. The ability of any one vendor to establish a large market share of digital ad spend is limited by disparate audiences, and vast numbers of both publishers (hundreds of millions of websites) and advertisers (which are constantly and gradually transitioning to greater digital ad spend), as well as the complexities of location, time, and relevance (matching appropriate ads to individual users). Targeting (and re-targeting) can be either intrusive or highly effective. Proving performance based ads were effective is also difficult (attribution), while brand-based ads rely on relatively nebulous metrics. Overall, the ad-tech industry is not highly profitable, but has been seeing rapid growth, mirroring that of Internet giants like Google and Facebook.

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