

Brussels, 1 June 2016

The logic of data & the structural transformation of media: a practical perspective

ihs.com

Daniel Knapp, IHS

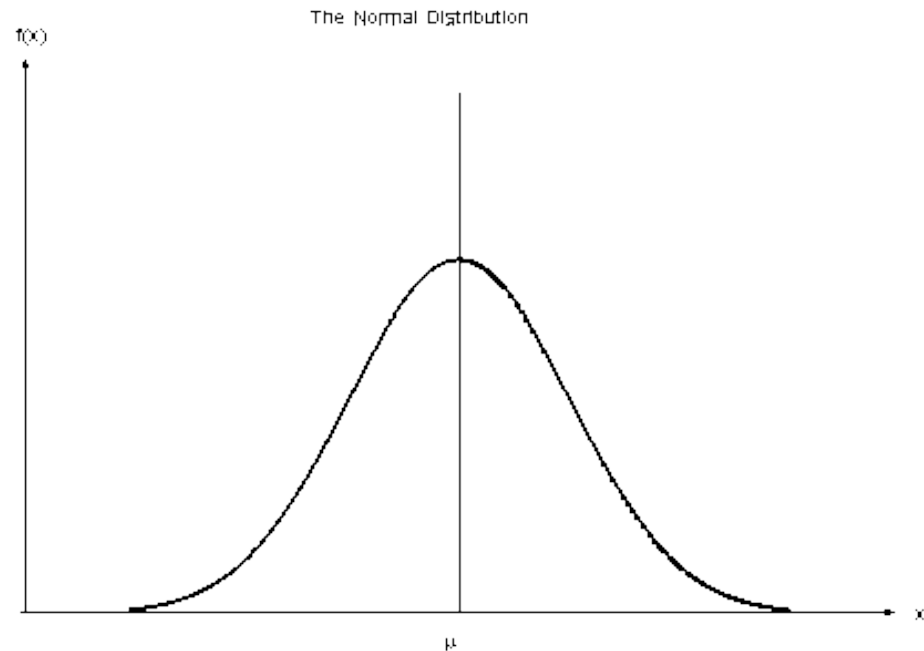


Mortality, normal distribution & the taming of chance: 'big data' changes how we make sense of the world

The Diseases and Casualties this Week,

A Bortive	6	Kingevil	10
Aged	54	Lethargy	1
Apoplexie	1	Murdered at Stepney	1
Bedridden	1	Palſie	2
Cancer	2	Plague	3880
Childbed	23	Pleurſie	1
Chriſtoms	15	Quinſie	6
Collick	1	Rickets	23
Conſumption	174	Riſing of the Lights	19
Convulſion	88	Rupture	2
Dropſie	40	Sciatica	1
Drowned 2, one at St. Kath- Tower, and one at Lambeth	2	Scowring	13
Feaver	353	Scirrhy	1
Fiſtula	1	Sore legge	1
Flux and Small-pox	10	Spotted Feaver and Purples	190
Flux	2	Starved at Nurſe	1
Found dead in the Street at St. Bartholome & the Leſſe	1	Stilborn	8
Frighted	1	Stone	2
Gangrene	1	Stopping of the ſtomach	16
Gowt	1	Strangury	1
Griek	1	Suddenly	1
Gripping in the Guts	74	Surfeit	87
Jaundies	3	Teeth	113
Impoſthume	18	Thruſh	3
Infants	21	Tiffick	6
Kild by a fall down ſtairs at St. Thomas Apoſtle	1	Ulcer	2
Males	83	Vomiting	7
Females	83	Winde	9
In all	166	Wormes	18
Christened		Buried	
Males	2656	Males	2656
Females	2663	Females	2663
In all	5319	In all	5319
Plague	3880		
Increased in the Burial this Week	1289		
Parishes clear of the Plague	34	Parishes Infected	96

*The Aſize of Bread ſeſſorib by Order of the Lord Mayor and Comt of Aldermen;
A penny Wheaten Loaf to contain Nine Ounces and a half, and three
half-penny White Loaves the like weight.*



Source: Wellcome Library, London. Bills of Mortality form August 15 - 22, 1665. High death rate from plague. 1665. Under CC BY.40

The holy grail: from averages to individuals, or replacing the marketing of sameness with the marketing of difference



The new imperative of ‘difference’ changes how advertising is planned, bought and sold online

SAMENESS



DIFFERENCE

Website Buy

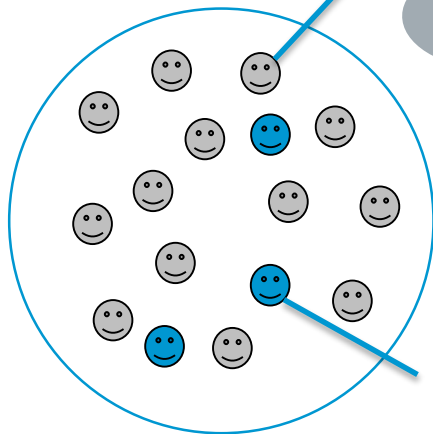
Not relevant for advertiser

1 price

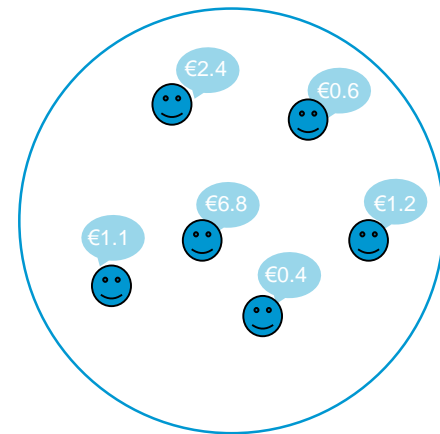
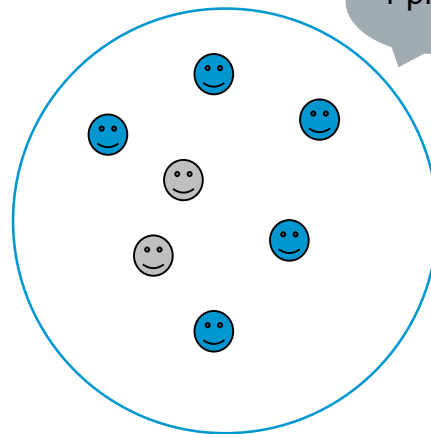
Ad Network Buy

1 price

Audience Buy



Relevant for advertiser

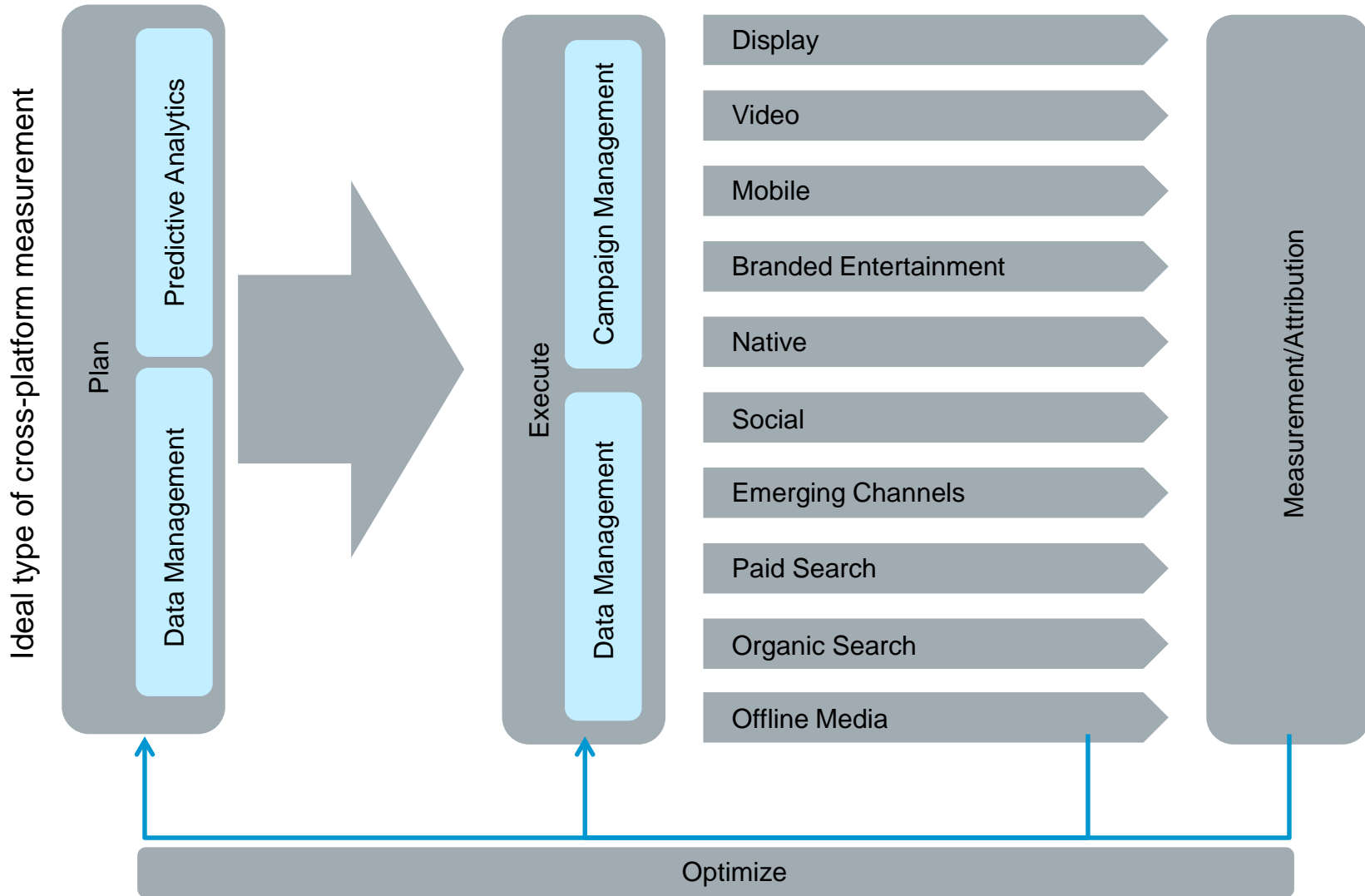


Buying generic Website Audiences produces a lot of ‘wastage’, i.e. consumers that the advertiser does not intend to reach. The quality of the website content, its brand reputation and basic visitor statistics are the only references for an advertising buy.

Traditional Ad Networks provide inventory based on assumptions such as the bundling of sports lovers across different websites.

Audience buying puts individual price tags on consumers / their unique data fingerprint, based on demographic, behavioural, location and other data. These price-tags are highly dynamic. Each advertiser allocates a different value to reaching a specific consumer at a given time. Audience buying frees the task of reaching audiences from the editorial context, which used to be the best proxy to target otherwise largely unknown audiences. It also eliminates ‘wastage’.

Aim: from data-supported to data-driven advertising



Different schools of device matching have emerged.

Probabilistic Matching

Large-scale models look at signals from millions of devices (IP data often main source). Clusters are used structure the data. As data is added, clusters are perpetually reduced in size until a statistically significant association allows to pair different devices to a single user.

Example companies:




Deterministic Matching

Unique identifiers for each record are compared for a match, or an exact comparison is used between fields. Often multisource (e.g email plus Facebook plus store-login). For scale and accuracy, relies on cooperative approach and sharing of IDs between market participants.

Example companies:





Login-based data

Logged-on individuals at scale across different devices. No cooperation with others required, no errors in matching because in contrast to conventional deterministic matching, there are no obstacles through patchy, disparate and incompatible datasets.

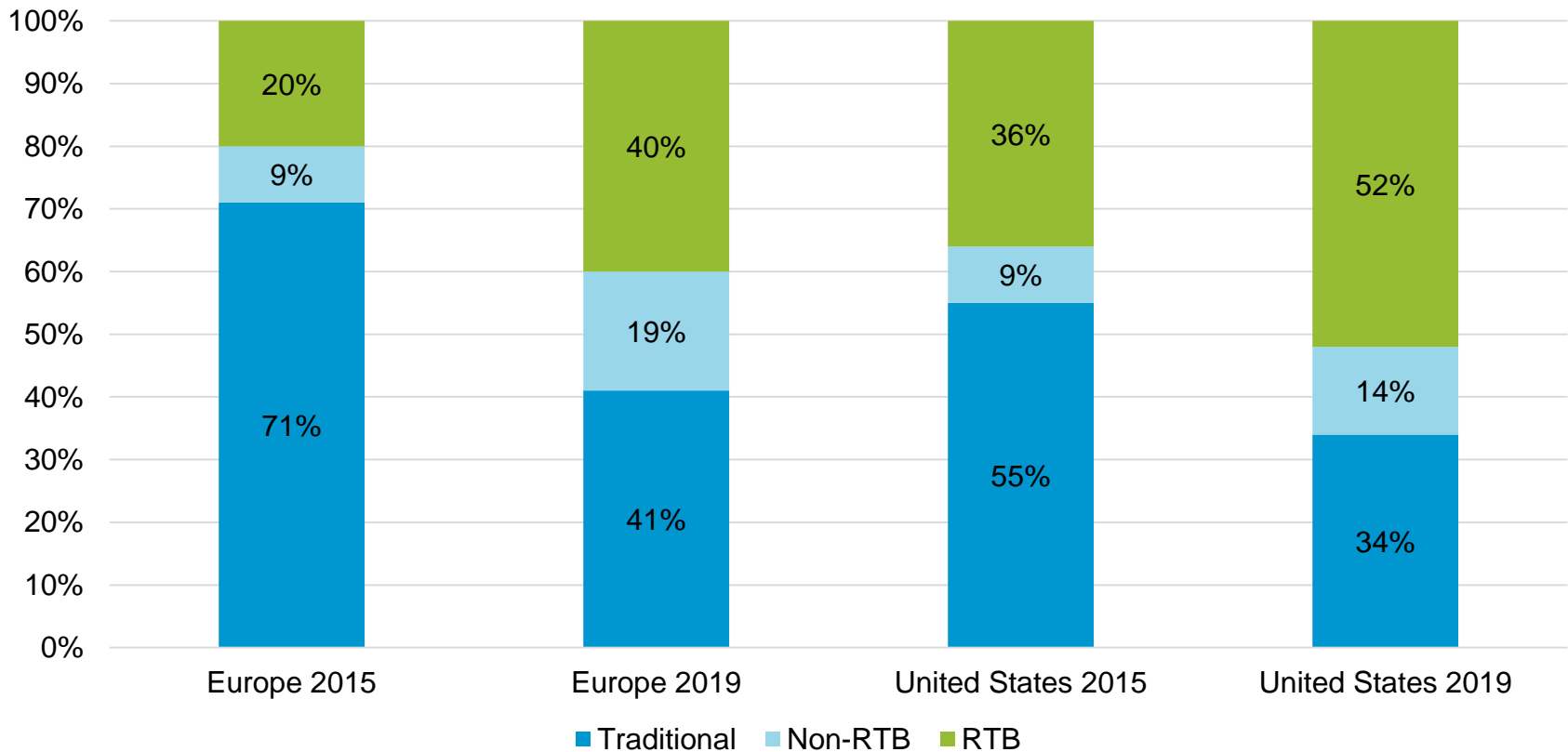
Example companies:





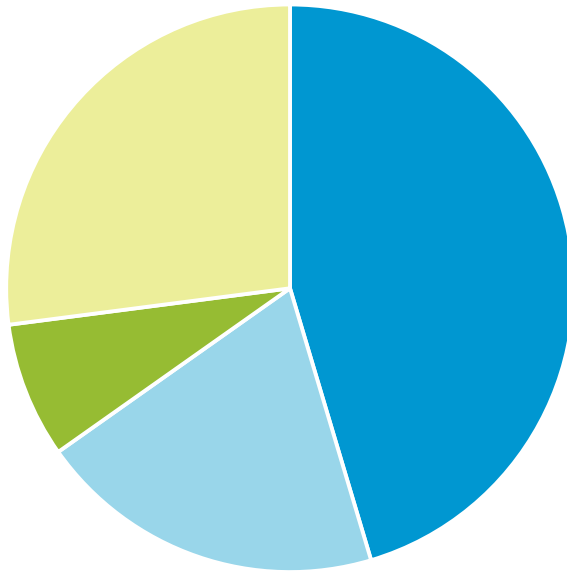
Programmatic mechanisms are set to make up the majority of online advertising revenue

Online ad spend by transaction model

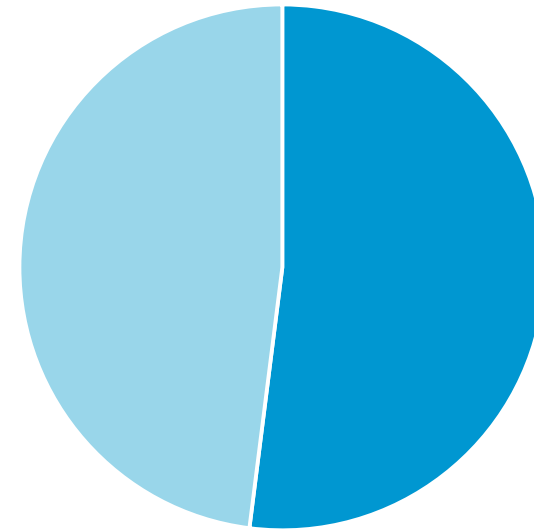


Agency holdings are adjusting to a data-centric future

WPP: Revenue Structure by Segment



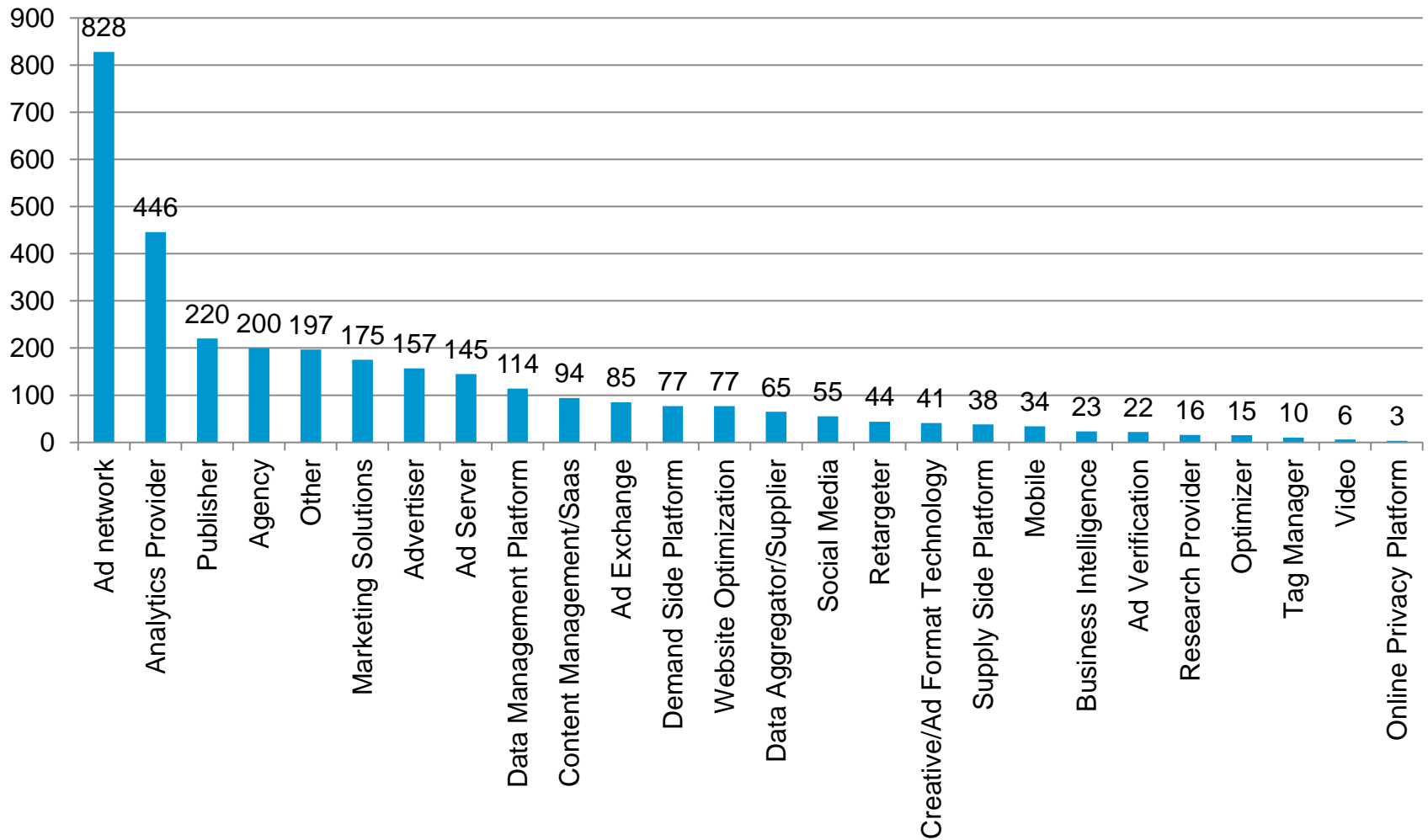
WPP - Data vs Classic Ad Revenue



■ Datengetriebene Werbung ■ Klassische Werbung

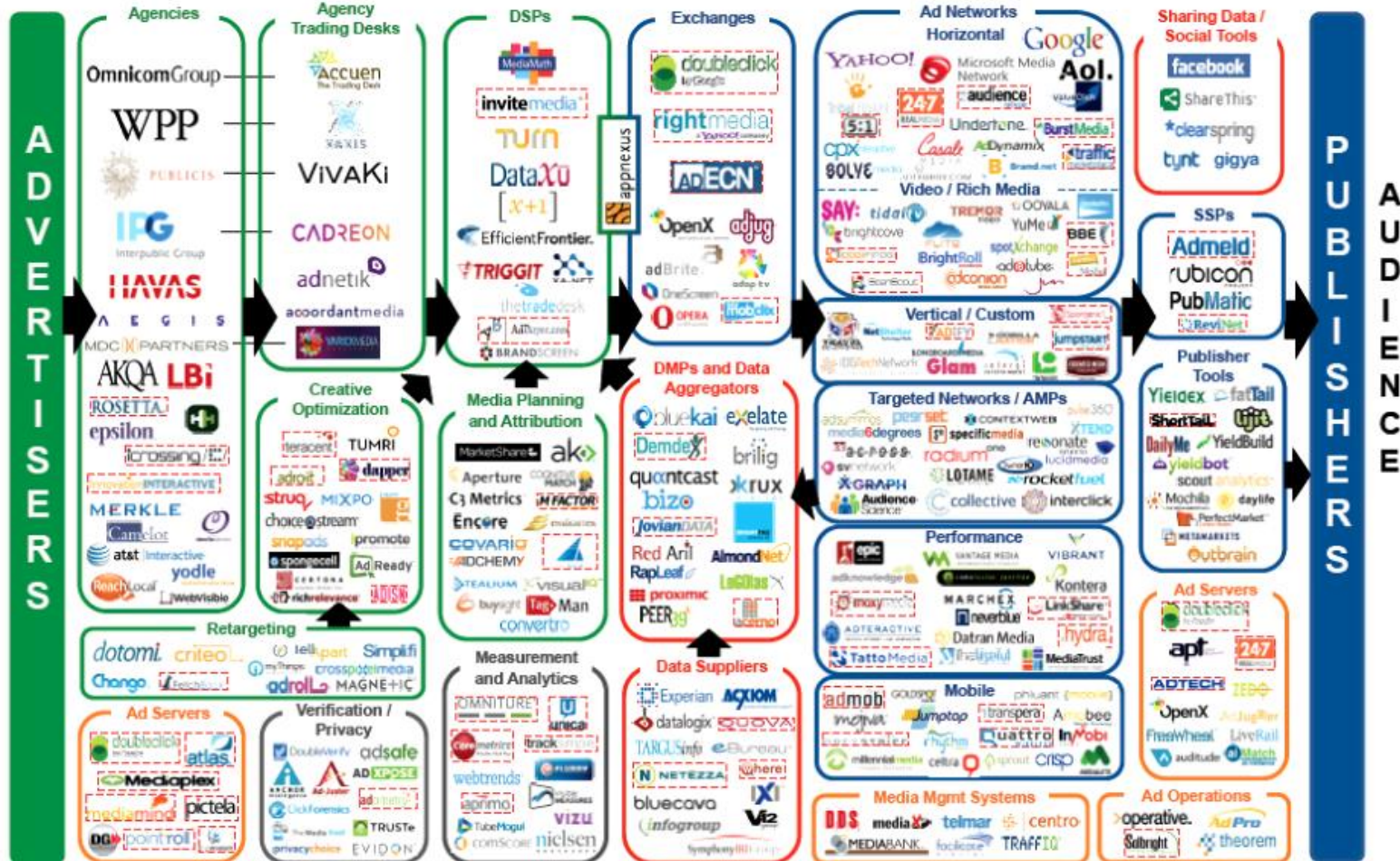
- Advertising, Media Investment Management
- Data Investment Management
- Public Relations & Public Affairs
- Branding, Identity, Healthcare and Specialist Communications

Hyperfragmentation: 3187 data trackers on the web



Structural transformation of the advertising ecosystem

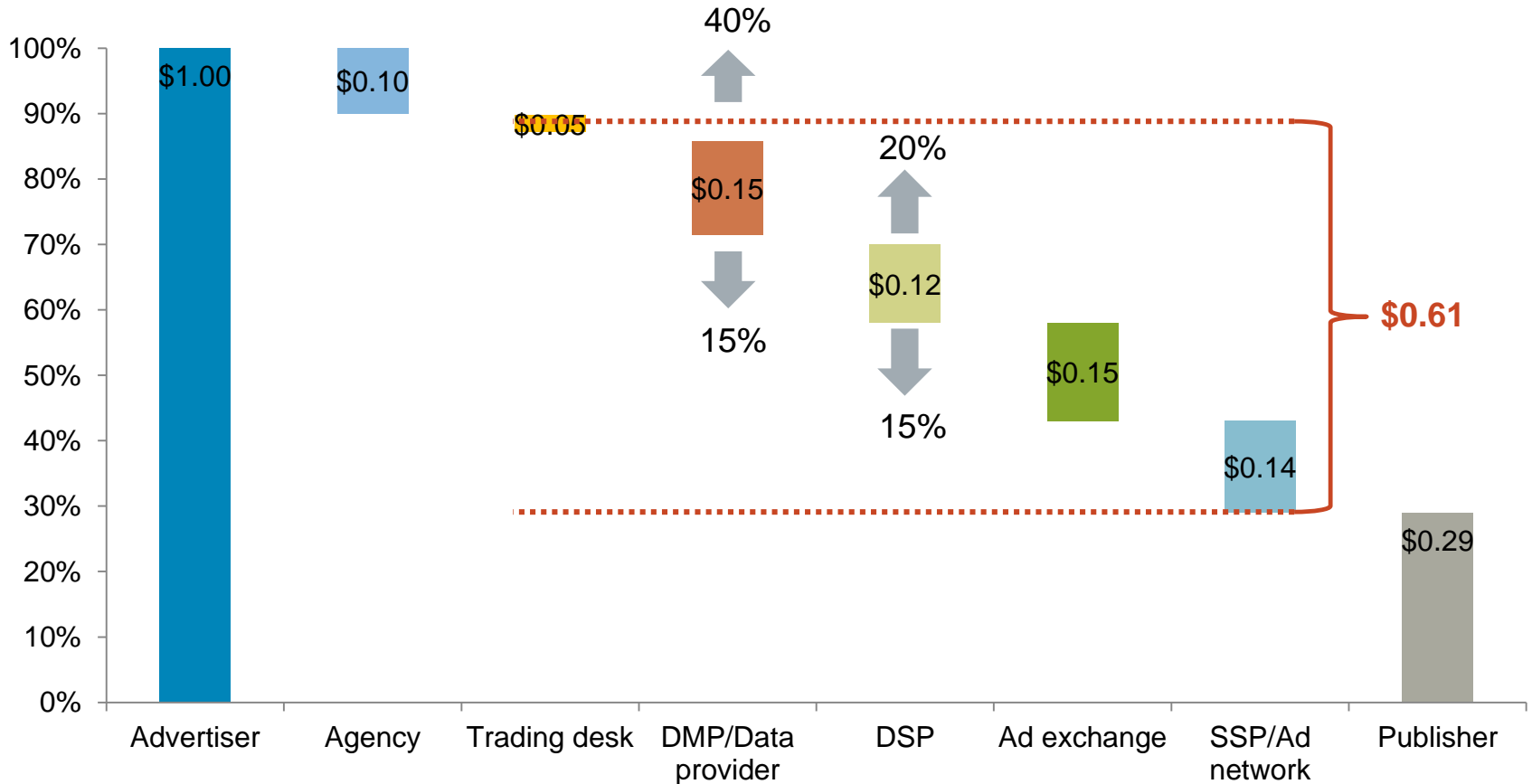
Online display advertising ecosystem



Source: Luma Partners

Value of data & analysis exceeds media value

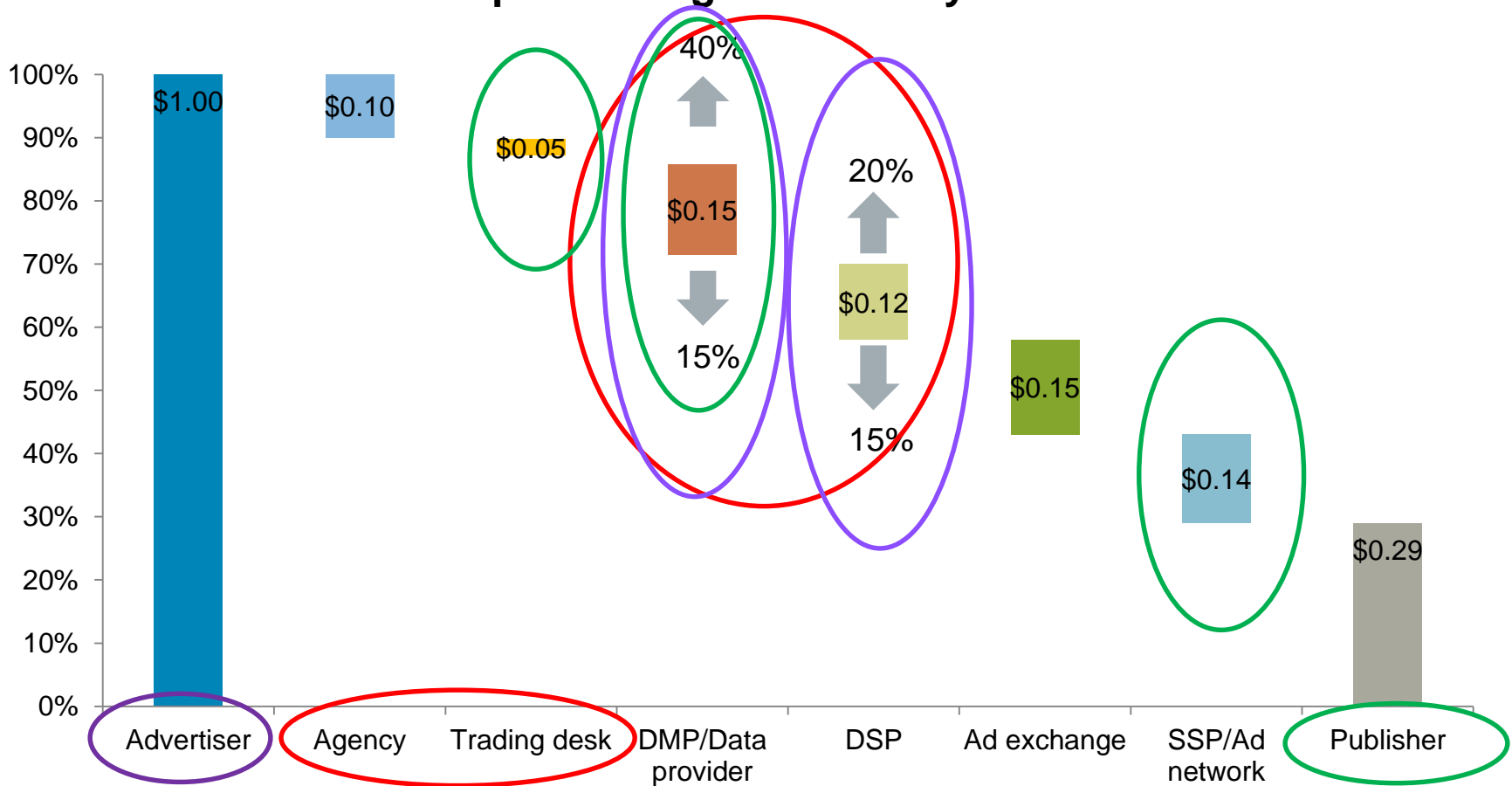
Flow of spend in digital ad ecosystem*



*Illustrative only. Variances depending on deal negotiations, technology ownership. Refers to banner display advertising, assumes linear flow across all types of market participants listed. Data based on interviews with 43 ad tech companies, advertisers and publishers in Europe and the US (2014), and reviews of SEC filings by ad tech companies (e.g. Rubicon, Tremor, YuMe).

Agencies develop new means of arbitrage, advertisers and marketers bring data tech in-house

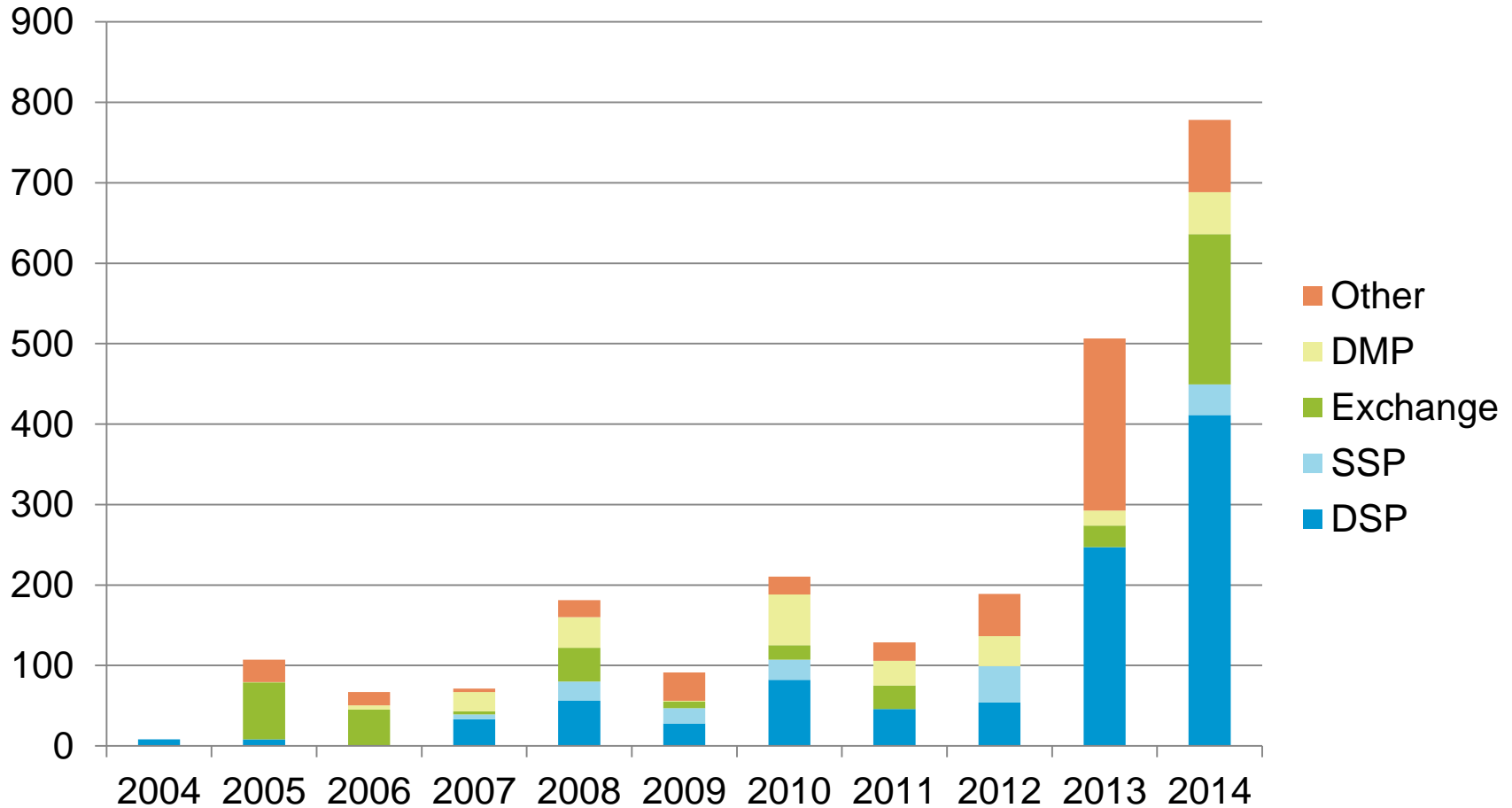
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Funding race to tap into the automation future

Global Ad Tech Funding (USDm)*



*Source: Crunchbase, company reports, GP Bullhound, IHS interviews & calculations. Excludes China. Excluding M&A.

Owning ad tech & data players becomes vital for media owners' tech stack

Date	Company	Acquisition*	Value
July 2015	ProSiebenSat.1	Smartstream.tv (majority)	undisclosed
June 2015	ProSiebenSat.1	Virtual Minds (majority)	undisclosed
May 2015	Verizon	AOL (full)	\$4,400m
February 2015	WPP	Appnexus (minority)	\$25m
November 2014	Publicis	Sapient (full)	\$3,400m
November 2014	Yahoo	Brightroll (full)	\$640m
October 2014	Telstra	Ooyala/Videoplaza (full)	undisclosed
July 2014	RTL Group	SpotXchange (majority)	\$144m
July 2014	Yahoo	Flurry (full)	undisclosed
May 2014	Google	Adometry (full)	undisclosed
May 2014	AOL	Convertro (full)	\$89m
March 2014	Comcast	FreeWheel (full)	\$320m
February 2014	Facebook	Liverail (full)	\$382m
February 2014	Oracle	BlueKai (full)	\$408m
August 2013	AOL	Adap.TV (full)	\$405m

■ Agency

■ Online technology platform

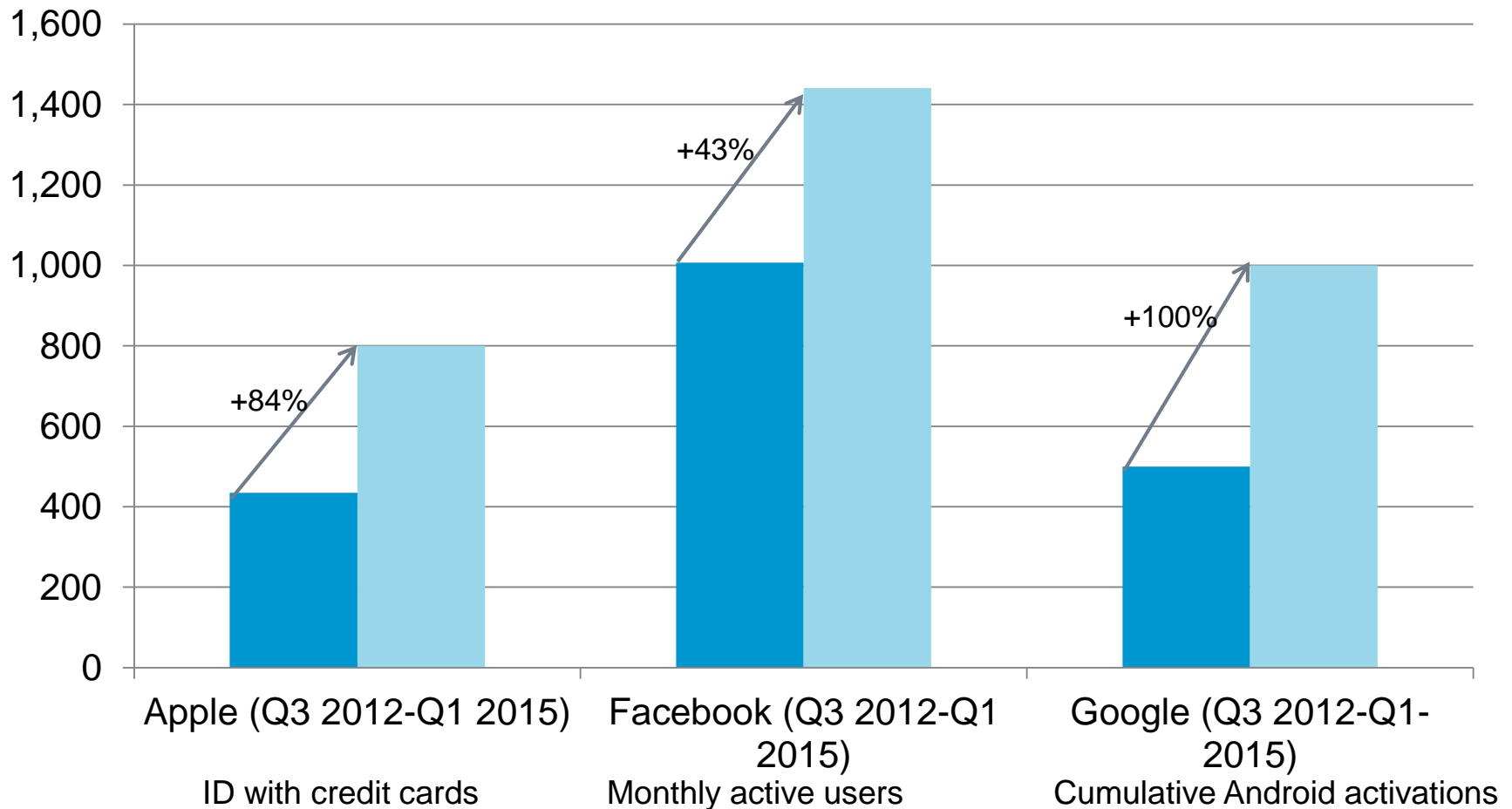
■ Broadcaster

■ Cable provider

*Represents full, majority & minority stakes. ND is non-disclosed. List non-exhaustive, focus on broadcasters & their competitive set.

1st party data create competitive advantages and enable 'proprietary truths'

Active 1st party consumer data assets (m)



Global players are building horizontally and vertically integrated super stacks, agencies become interpreters

	Facebook	Amazon	Yahoo	Google	Verizon	WPP
Ad server or ad tech platform	FBX and Liverail (2014)	In-house demand-side platform	Yahoo Ad Manager	DoubleClick	Adap.tv through AOL (2013)	Xaxis Videology Appnexus
Content production	In-house news team; Partnerships with media companies (NYT, National Geographic, etc.)	Amazon Prime	Yahoo original series; partnerships with CNBC and ABC news and NBC Sports Group	YouTube MCNs	Huffington Post (2011) AOL.com Techcrunch	Branded content agencies such as Group SJR
Gateway to video	Liverail	Amazon Prime	Yahoo Screen & BrightRoll (2014)	YouTube (2006)	AOL One Adap.tv Vidible (2014)	Videology
Audience Data	Audience Network	Inferred Amazon data sets	Flurry (2014)	Google+ profile data	Verizon customer database	Kantar (2008) & comScore
Analytics	Atlas Platform (2013)	Amazon Analytics	Yahoo Ad Manager & Flurry Analytics	Adometry (2014) & Google Analytics	Convertro (2014)	Kantar

**Acquisitions are listed with the year in which they were acquired*

Rob Norman, Chief Digital Officer, GroupM

“There is no doubt a current information asymmetry as these platforms know more than any advertiser or agency could know. The best we can do is learn within our own systems and build proxies for the information they have. We don’t know how big the gap is between what we deduce and the reality.”

The marketing cloud extends the role of data

Software companies with CRM products enter the advertising value chain

They are already making strategic acquisitions to cut across old data silos. Example Oracle.

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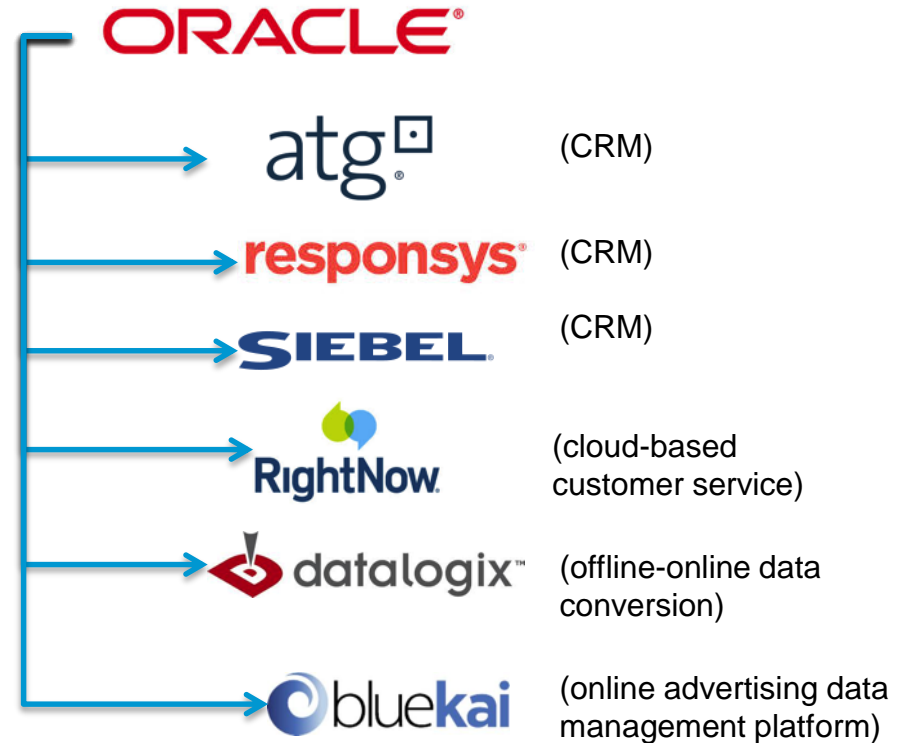
acxiom™

salesforce

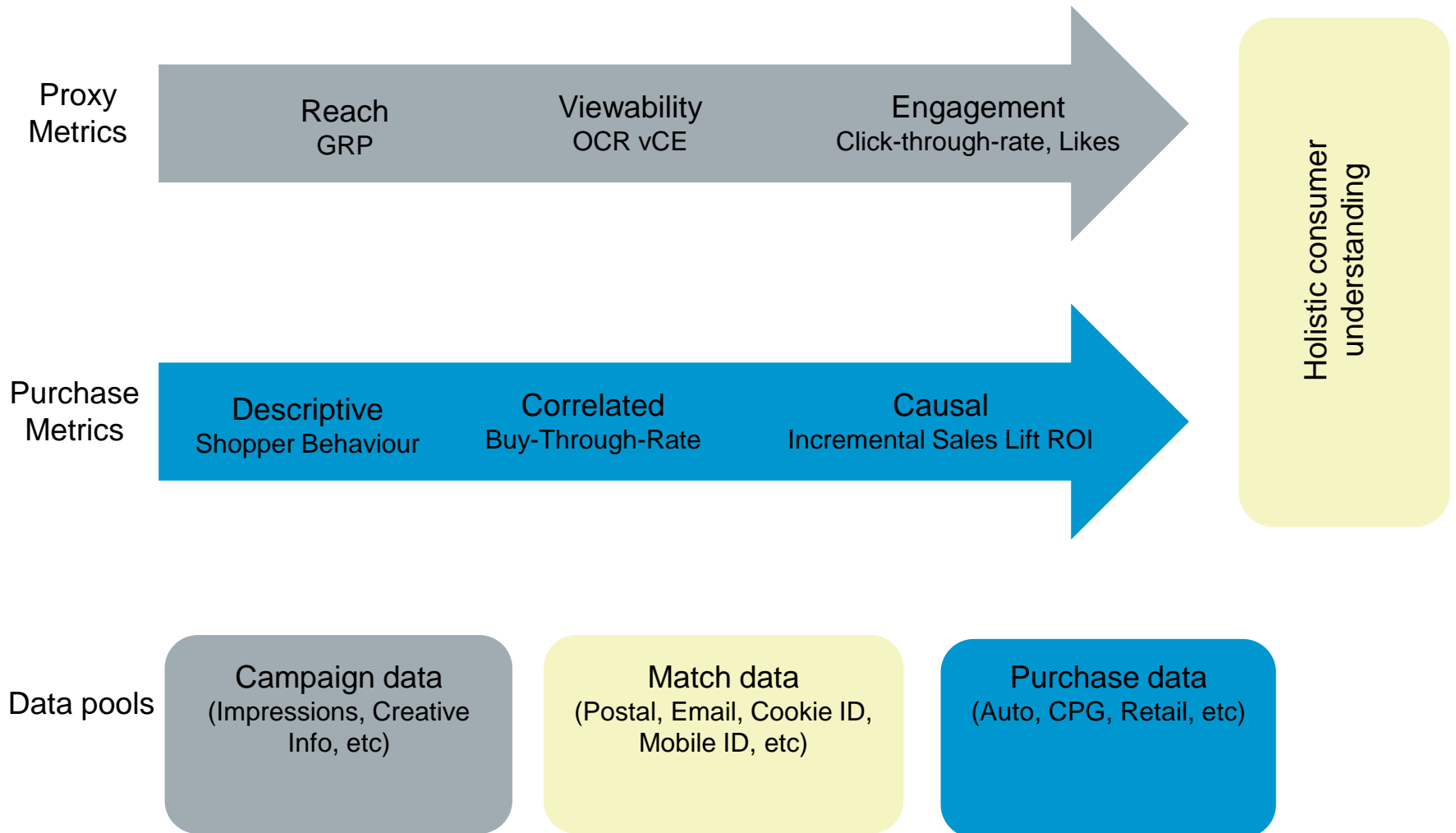
IBM

Adobe

ORACLE®



'Martech' combines usage data with customer data



Towards a loss of interpretation?



“Most strikingly, society will need to shed some of its obsession for causality in exchange for simple correlations: not knowing why but only what. This overturns centuries of established practices and challenges our most basic understanding of how to make decisions and comprehend reality.”
(Mayer-Schönberger & Cukier 2013: 18)

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