Display Advertising

Task 1

Overview of the Display Ads industry

Task 2

Business operations in the industry

Task 3

How are online display ads bought and sold?

Online Display Advertising Landscape

Historical Note: Banners

Banners seem to be the oldest standard format in use.

The first “banner ad” was launched by AT&T on Oct 27, 1994 on Hotwired, the web version of Wired.

Part of the AT&T “you will” ad campaign

The AT&T You Will Campaign

Each ad presented a futuristic scenario beginning with "Have you ever…" and ending with "…you will. And the company that will bring it to you: AT&T.“

At that time, there were about 30 million people on the Internet.

The ad predicted a number of innovations including GPS navigation, Wi-Fi, tablet computing, smartwatches, distance learning etc.

Display Advertising

Struggling Rural Colleges, Towns Find Fates Intertwined

As America's rural colleges struggle with falling enrollments and local flight, they are realizing how their own futures are intertwined with the broader community.

- **There's an Antidote to America's Long Economic Malaise: College Towns** (Dec. 12)

Bring Back Jobs From China? In Shenzhen, They Aren't That Worried

Donald Trump's threat to compel Apple and others to manufacture more at home should strike fear into Shenzhen, where the world's tech gadgets are made. Yet executives here aren't worried by Mr. Trump.

Stock Futures Edge Up as Dow Nears 20000

Futures pointed to a small opening gain for the Dow

Myanmar's Right-Hand Cars Feel Wronged by State Ban

Trump's Israel Envoy Pick Helped Fund Settlers

Dec 20 '16, 4:39 PM EST MARKETS →

Opinion →

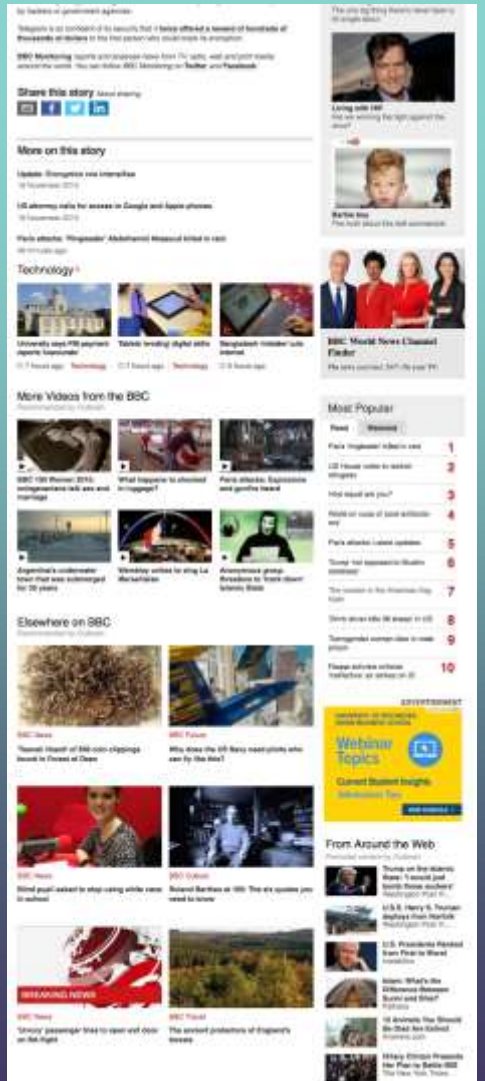
Coal in Trump's Stocking
Review & Outlook

Why Liberals Oppose Ben Carson
By Jason L. Riley | Upward Mobility

The Case for a Rules-Based Fed
By John B. Taylor | Commentary

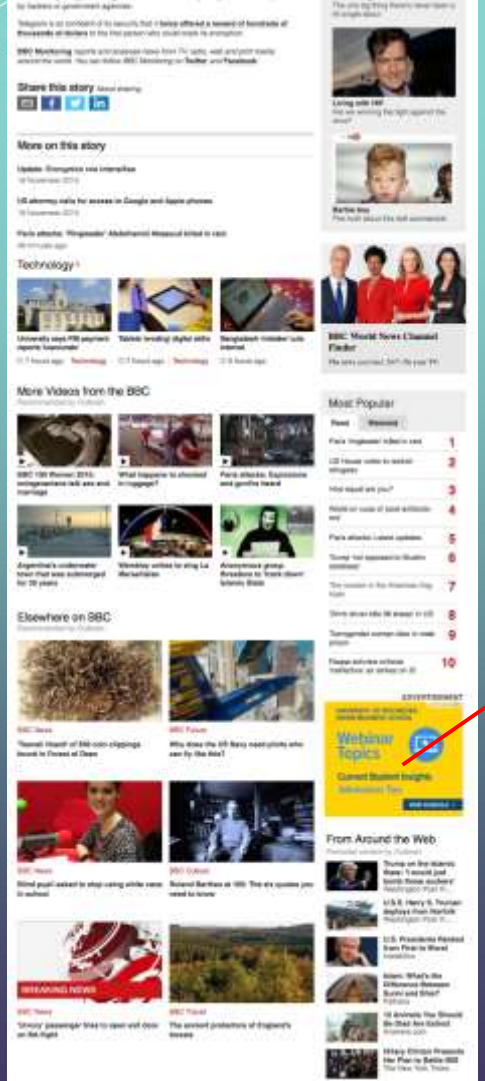
Examples of interactive banners

Pringles – Click

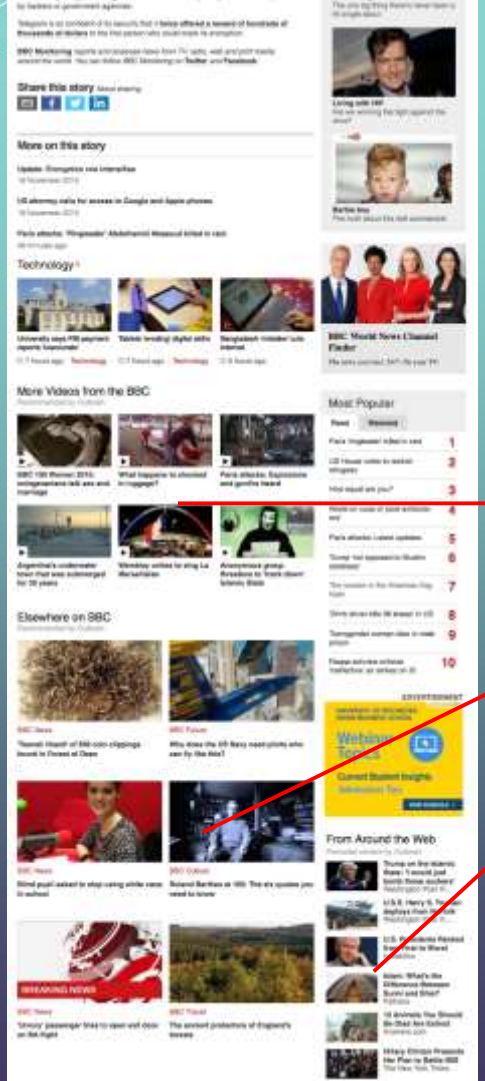


This is an example of the BBC website. How many ads do you find on this webpage?

Both ads from SAS. This is a behavioral targeting ad. It is becoming popular to have two ads on the same page.



This is an ad from University of Rochester Business School. It is a retargeting ad.



They are also ads, even though they look like real content. This is called native ad.

BBC News

'Toenail Hoard' of 500 coin clippings found in Forest of Dean

BBC Future

Why does the US Navy need pilots who can fly like this?

BBC News

Blind pupil asked to stop using white cane in school

BBC Culture

Roland Barthes at 100: The six quotes you need to know

Raqqa activists criticise 'ineffective' air strikes on IS **10**

ADVERTISEMENT

UNIVERSITY OF ROCHESTER, SIMON BUSINESS SCHOOL

Webinar Topics

Current Student Insights

Admissions Tips

VIEW SCHEDULE >

From Around the Web

Promoted content by Outbrain

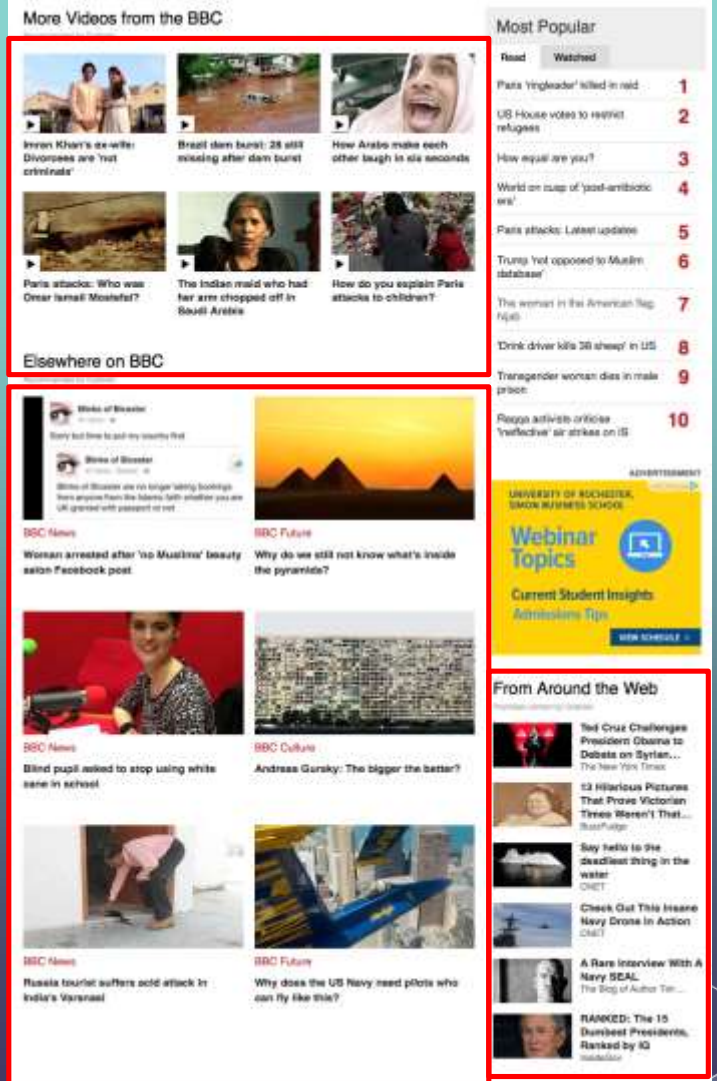
Trump on the Islamic State: 'I would just bomb those suckers'
Washington Post Vi...

U.S.S. Harry S. Truman

Native Ads

Native advertising is a type of advertising that matches the form and function of the platform upon which it appears.

It is hard for consumers to distinguish between content and native ads.

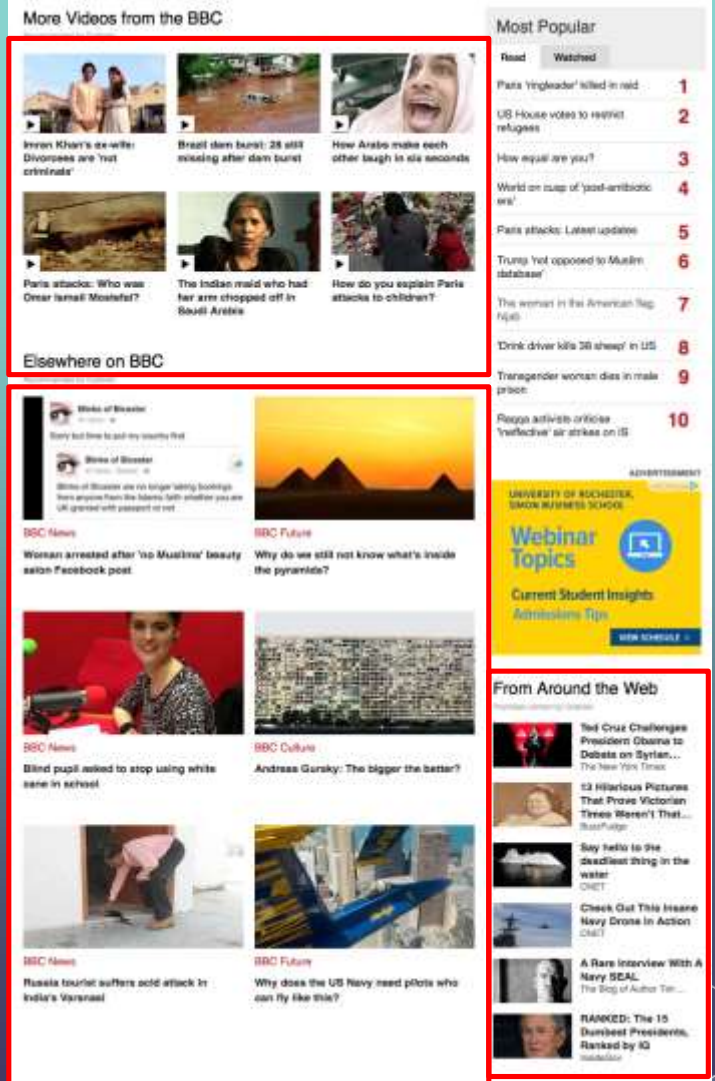


Native Ads

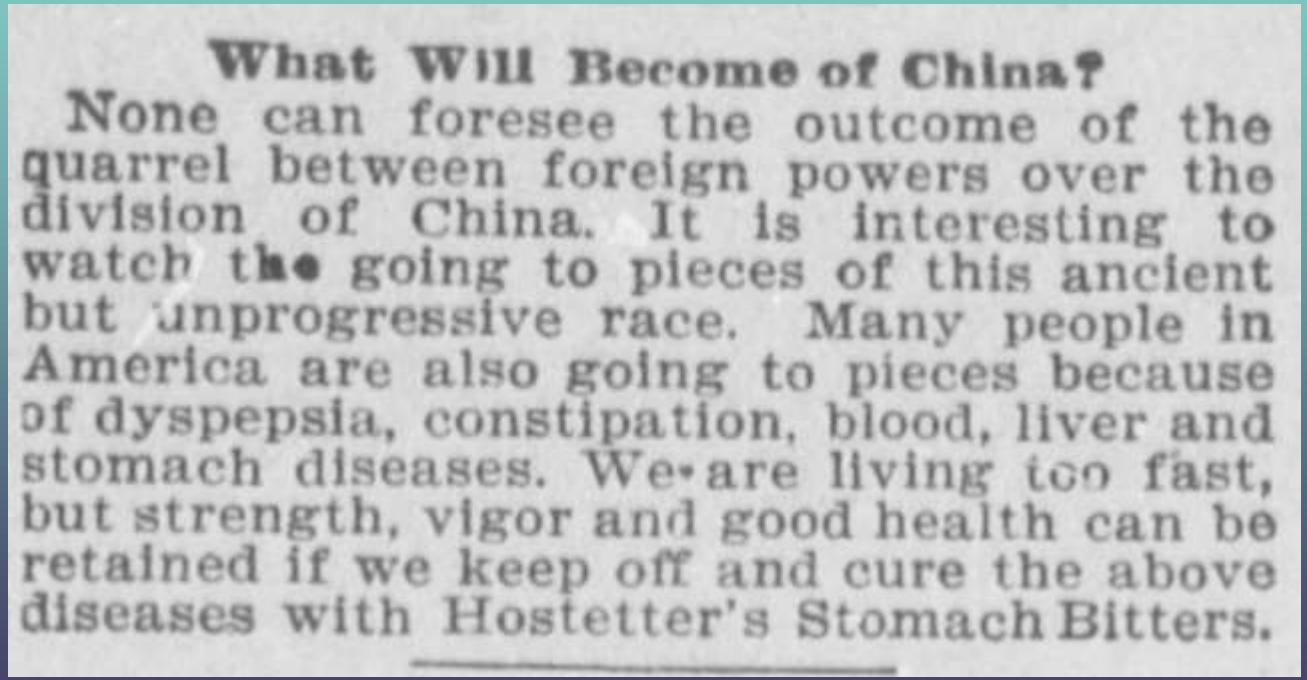
Advertisers face a trade-off between ad clicks and brand recognition.

Publishers need to strike a balance between ad clicks and the platform's trustworthiness.

For policy makers, concerns that native advertising confuses customers prompted the U.S. Federal Trade Commission to issue guidelines for disclosing native ads.



The first native ad (1901)



What Will Become of China?

None can foresee the outcome of the quarrel between foreign powers over the division of China. It is interesting to watch the going to pieces of this ancient but unprogressive race. Many people in America are also going to pieces because of dyspepsia, constipation, blood, liver and stomach diseases. We are living too fast, but strength, vigor and good health can be retained if we keep off and cure the above diseases with Hostetter's Stomach Bitters.

Targeting based on simple rules

Geo-targeting

Target by country, state, city, IP address

OS / Browser / Devices

Segment based on technology

Day and time

Specify display times to the minute

Discussion

In addition to these simple targeting rules (geo-targeting, OS / browser / devices, day and time), which other targeting rules can you think of?

Targeting via sophisticated matching

Contextual targeting

Ads displayed based on content of web site

Contextual Targeting

Targeting via sophisticated matching

Google display network offer two options for contextual targeting (AdWords Help 2017)

Keyword targeting: Choose words or phrases related to your product or service so Google can automatically target your ads to relevant websites on the Google Display Network that your customers visit (this is known as automatic placements).

Topic targeting: Target your ad to multiple pages about specific topics at once. Topic targeting lets you reach a broad range of pages on the Display Network.

Targeting via sophisticated matching

Contextual targeting

Ads displayed based on content of web site

Behavioral targeting

Delivering relevant messages to audiences based on interests defined by recency and frequency of site navigation behaviors (web sites visited, search queries made, etc).

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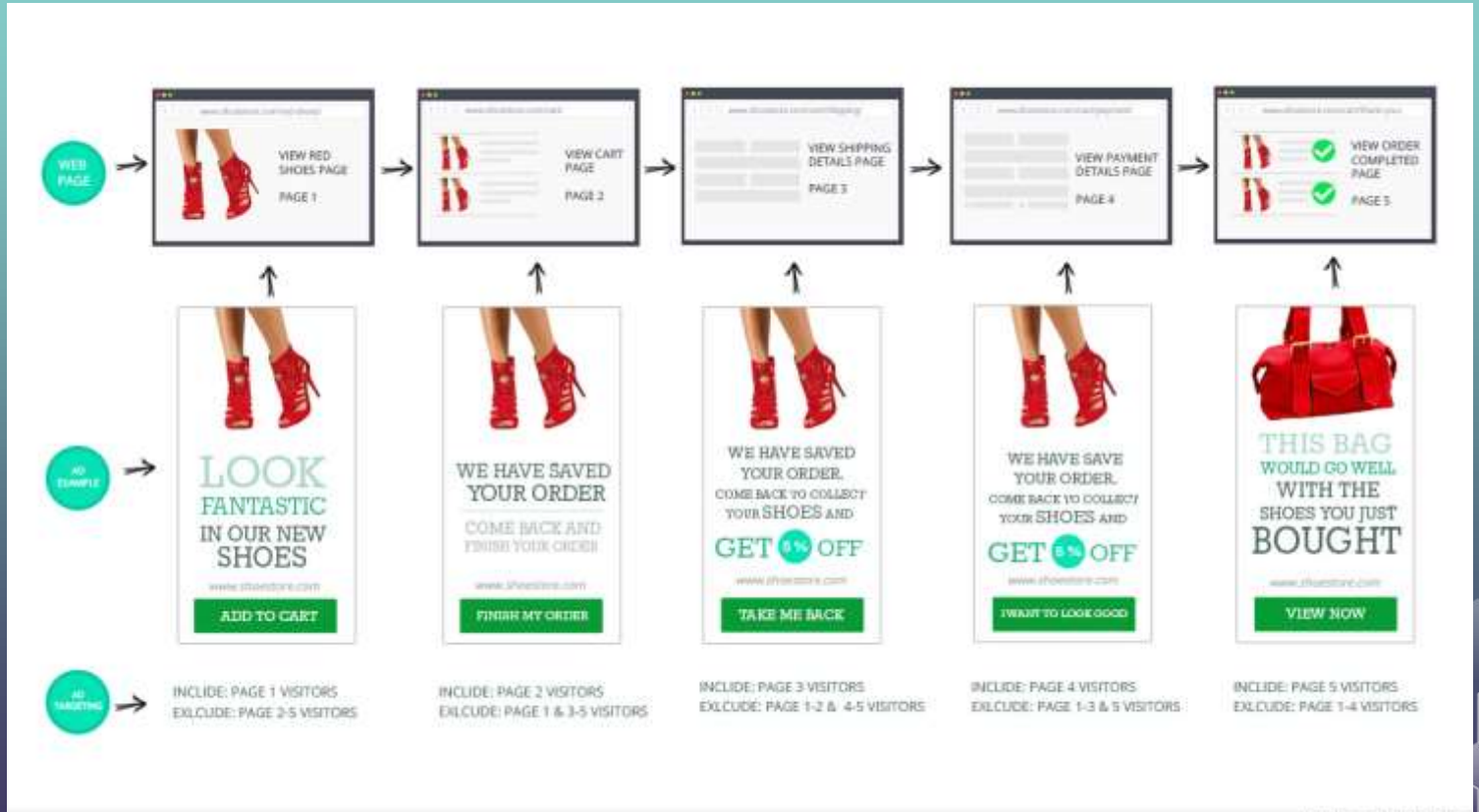
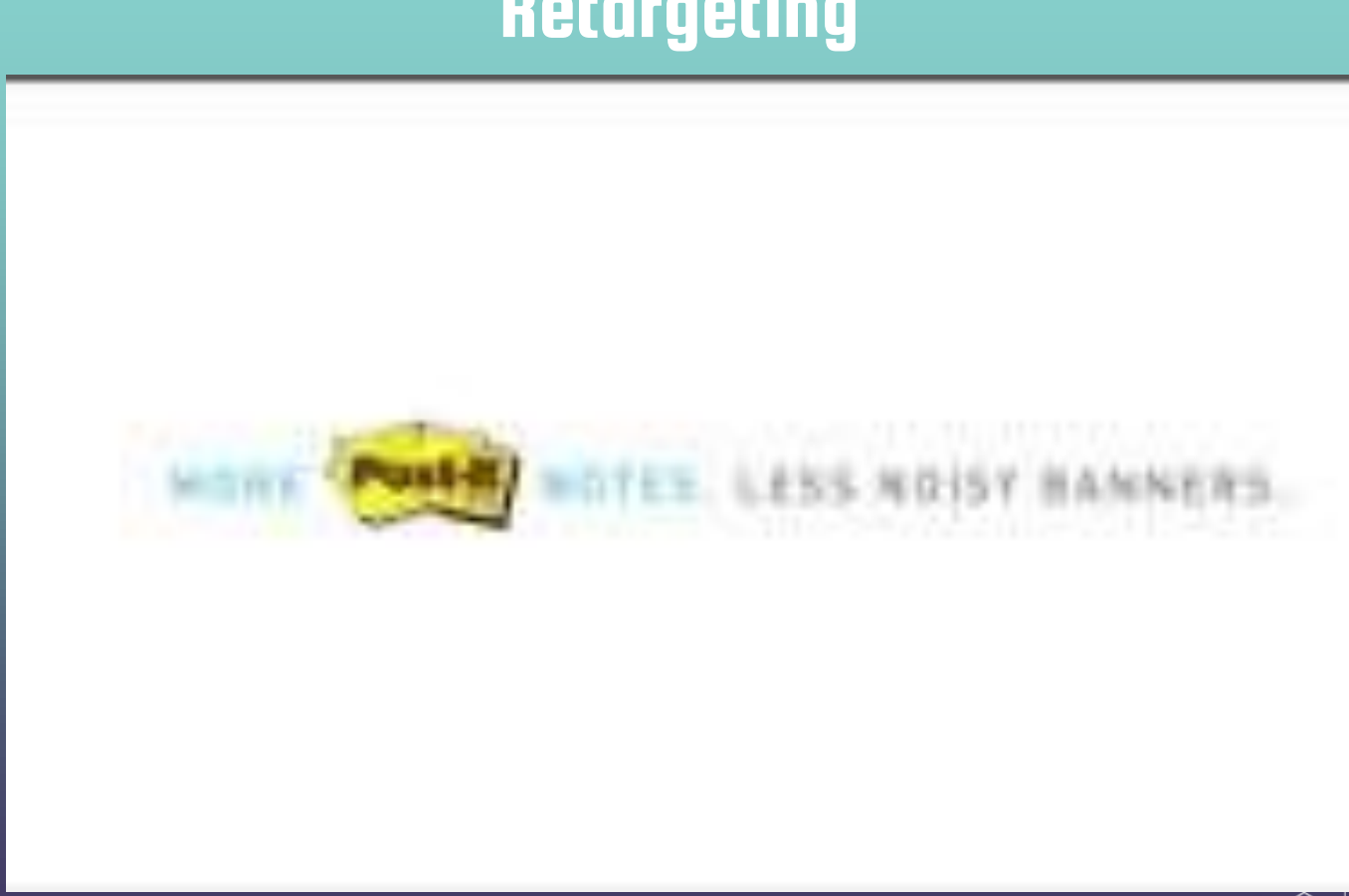
Retargeting/Remarketing

Online ad is shown to a user who searched for (or saw) a particular kind of content.
Based on past sites a user has visited

Customize ads for different retargeting segments



Retargeting



Price can also be targeted

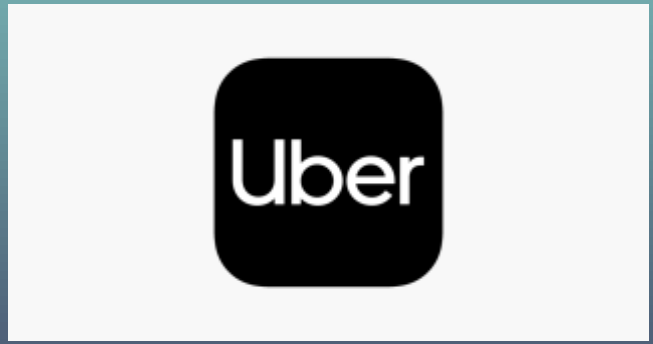
Firms offer different consumers based on their personal situations (e.g., geolocation, search history, purchase history).

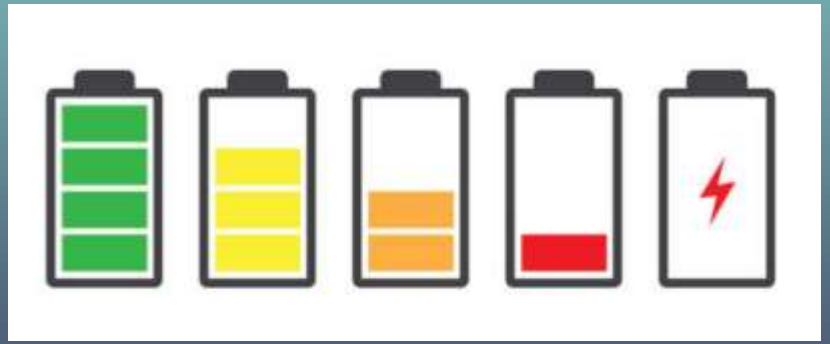
Do you use a MacBook or a PC?

Mac vs. PC

The Wall Street Journal investigated claims that Orbitz, a popular online travel agency, was showing higher prices for hotel rooms to Mac users compared to those who used a Windows PC.

Uber charges you higher prices when your battery is low, because it knows you cannot afford to wait!





Display has the largest share >50% of digital ad spending

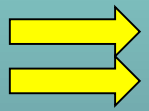
Digital Ad Spending in the US, by Format, 2019-2023
billions

	2019	2020	2021	2022	2023
Display	**$70.06**	**$81.38**	**$92.53**	**$100.71**	**$107.91**
—Video	$36.01	$42.58	$49.02	$53.99	$58.39
—Banners and other*	$25.94	$30.20	$34.23	$37.12	$39.70
—Rich media	$5.28	$5.44	$5.85	$6.00	$6.10
—Sponsorships	$2.84	$3.16	$3.44	$3.60	$3.72
Search	**$53.73**	**$63.90**	**$73.31**	**$80.43**	**$87.15**
Lead generation	**$2.59**	**$2.84**	**$3.05**	**$3.15**	**$3.24**
Classifieds and directories	**$2.19**	**$2.34**	**$2.49**	**$2.53**	**$2.56**
Email	**$0.49**	**$0.55**	**$0.61**	**$0.65**	**$0.68**
Mobile messaging	**$0.28**	**$0.28**	**$0.29**	**$0.29**	**$0.29**
Total	**$129.34**	**$151.29**	**$172.29**	**$187.77**	**$201.83**

*Note: includes advertising that appears on desktop and laptop computers as well as mobile phones, tablets and other internet-connected devices on all formats mentioned; *includes ads such as Facebook's News Feed Ads and Twitter's Promoted Tweets*
Source: eMarketer, February 2019

T10056 www.eMarketer.com

Display used to fall behind search



US Digital Ad Spending, by Format, 2010-2016
billions

	2010	2011	2012	2013	2014	2015	2016
Search	**$12.00**	**$15.10**	**$17.58**	**$19.76**	**$21.73**	**$23.32**	**$24.45**
Display	**$9.91**	**$12.33**	**$14.98**	**$17.67**	**$20.69**	**$23.13**	**$25.21**
—Banner ads	$6.23	$7.55	$8.68	$9.60	$10.27	$10.87	$11.29
—Video	$1.42	$2.00	$2.93	$4.14	$5.75	$6.99	$8.04
—Rich media	$1.54	$1.65	$1.82	$2.03	$2.38	$2.69	$3.03
—Sponsorships	$0.72	$1.12	$1.56	$1.90	$2.28	$2.59	$2.86
Classifieds and directories	**$2.60**	**$2.58**	**$2.60**	**$2.71**	**$2.81**	**$2.88**	**$2.95**
Lead generation	**$1.34**	**$1.52**	**$1.71**	**$1.90**	**$2.09**	**$2.17**	**$2.20**
Mobile messaging	**$0.25**	**$0.25**	**$0.23**	**$0.23**	**$0.22**	**$0.21**	**$0.20**
Email	**$0.20**	**$0.21**	**$0.22**	**$0.23**	**$0.24**	**$0.24**	**$0.24**
Total	**$26.29**	**$31.99**	**$37.31**	**$42.50**	**$47.77**	**$51.95**	**$55.25**

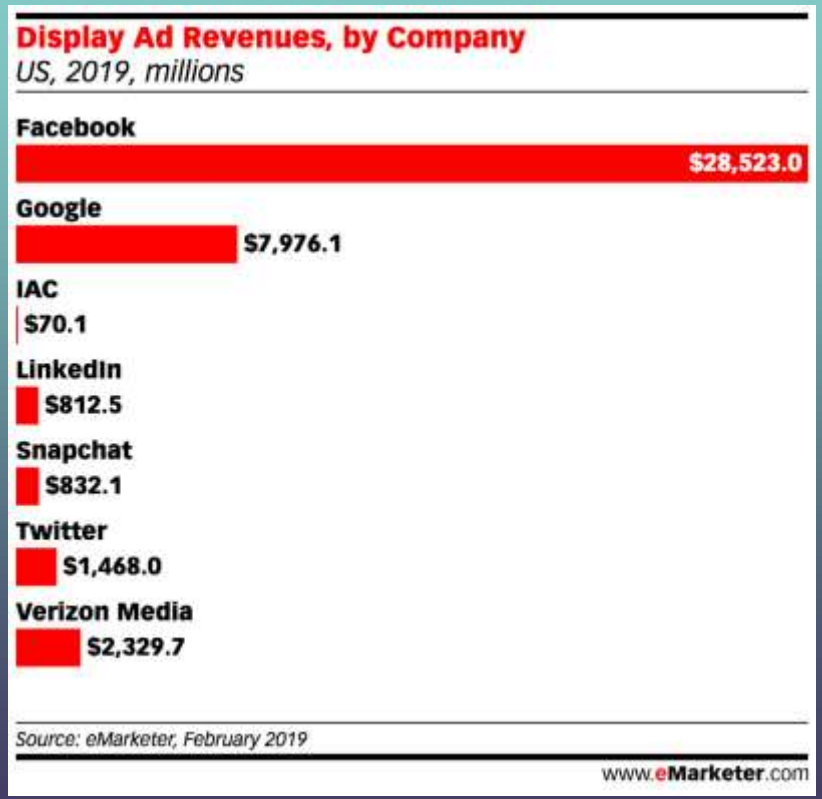
Note: includes advertising that appears on desktop and laptop computers as well as mobile phones and tablets on all formats mentioned; data through 2011 is derived from IAB/PwC data
Source: eMarketer, Sep 2012

144427 www.eMarketer.com

Display vs. Search

	Display	Paid Search
Users/consumers	Passive	Proactive
	Near top of the funnel	Near bottom of the funnel
Contents	Image, Video, Animation	Text
Pricing mechanism	Cost per thousand impressions (CPM)	Cost per click (CPC)
	Auctions + real-time bidding (RTB) Or direct buy at fixed CPM	Auctions + offline bids
Advertising objectives	Brand awareness Re-engaging	Lead generation Direct marketing
Placement	Publishers' websites	Search engine result pages

Facebook accounts for the majority of display ad revenue

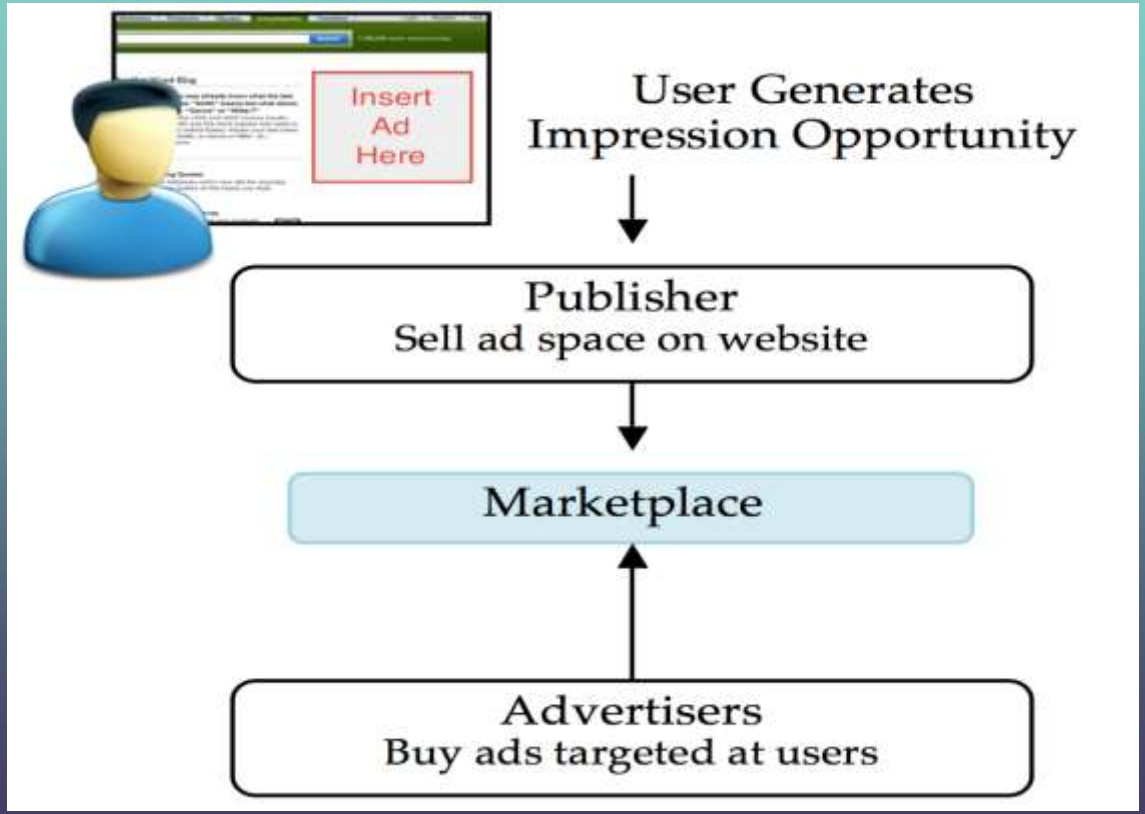


Facebook: ~40%

Google ~12%

How are Display Ads Bought & Sold?

The Basic Idea



Display ads are mainly sold in one of two ways

1) Direct buying from publishers
   - Bulk ad purchase that specifies the price and quantity, as well as the time frame and targeting criteria
   - Premium Space
   - Guaranteed contract
   - Future market

Display ads are mainly sold in one of two ways

1) Direct buying from publishers

Bulk ad purchase that specifies the price and quantity, as well as the time frame and targeting criteria
Premium Space
Guaranteed contract
Future market

2) Real-time bidding (RTB) through Ad Exchange

A platform running an auction to determine which advertiser buys an individual impression in real time (~100 milliseconds)
Remnant space
Non-guaranteed
Spot market

Direct Buying from Publishers

"200,000 impressions to US users on the New York Time's finance related pages in July"

"All impressions on the EPSN homepage on Sept 21"

"300,000 impressions on Yahoo! to a retailer's existing customers in April"

Question

Among the major social media platforms (Facebook, Instagram, Twitter, LinkedIn, Pinterest), which one charges the highest for display ad (i.e., charges the highest CPM)?

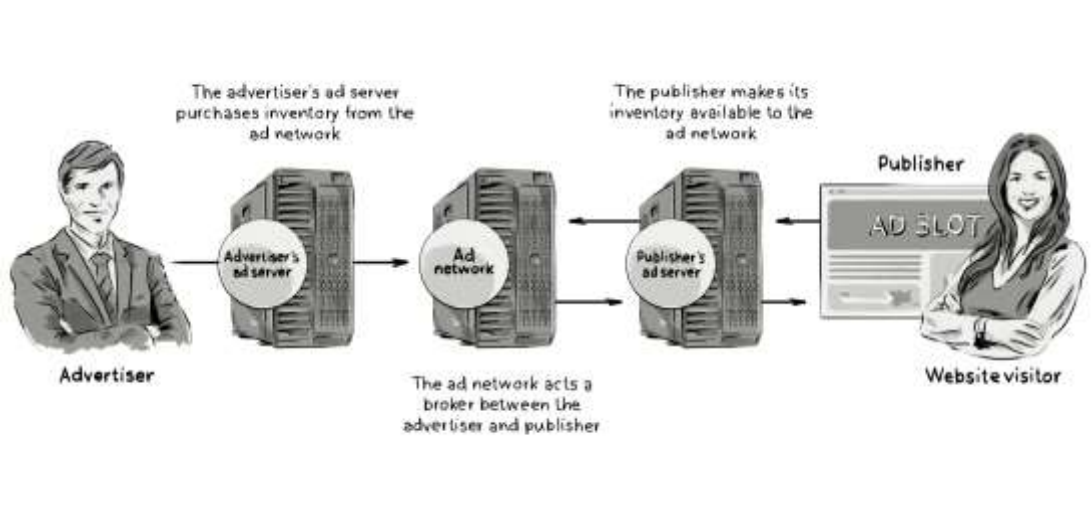
Cost-per-Click vs. CPM

Facebook Ads	$1.35	$8.60
Instagram Ads	$3.56	$8.96
Twitter Ads	$0.38	$6.46
LinkedIn Ads	$5.26	$6.59
Pinterest Ads	$1.50	$30

Ad Networks

Ad networks purchase remnant inventory across many publishers and resell to advertisers at a premium.

An essential vehicle for monetizing the Long Tail of the Internet. Provide small and mid-sized online publishers with more advertising revenues.



Ad Networks: Issues

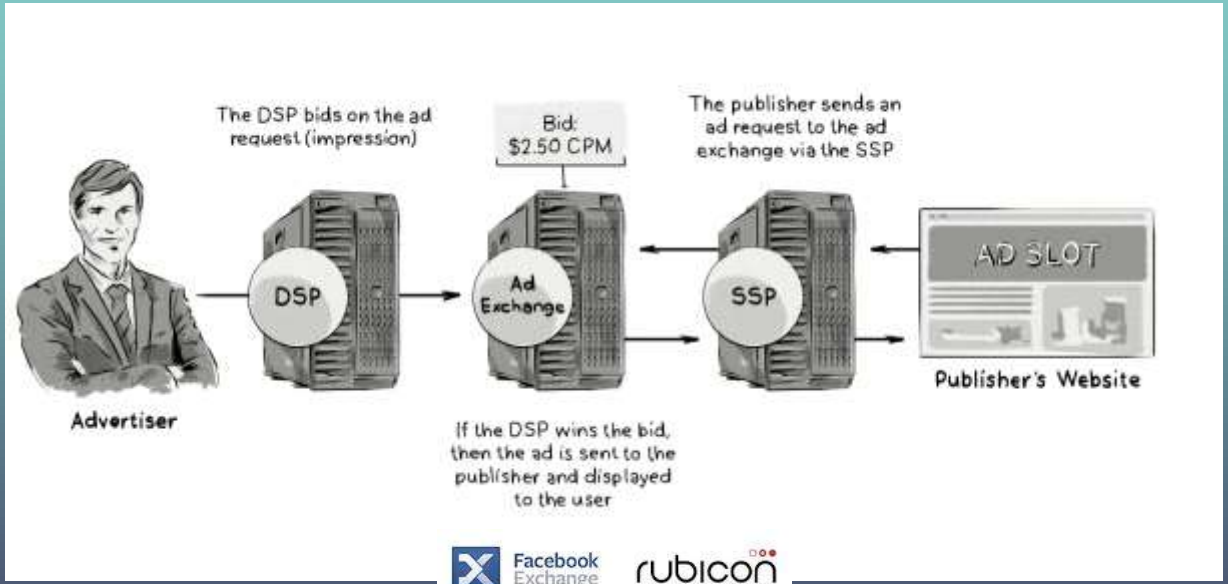
Many ad networks with competing business models.

Lack of transparency.

Fixed CPM — all impressions cost the same regardless of value.

Need efficiency!

Ad Exchange



Facebook Exchange
rubicon
appnexus
doubleclick by Google
OpenX
Microsoft Advertising

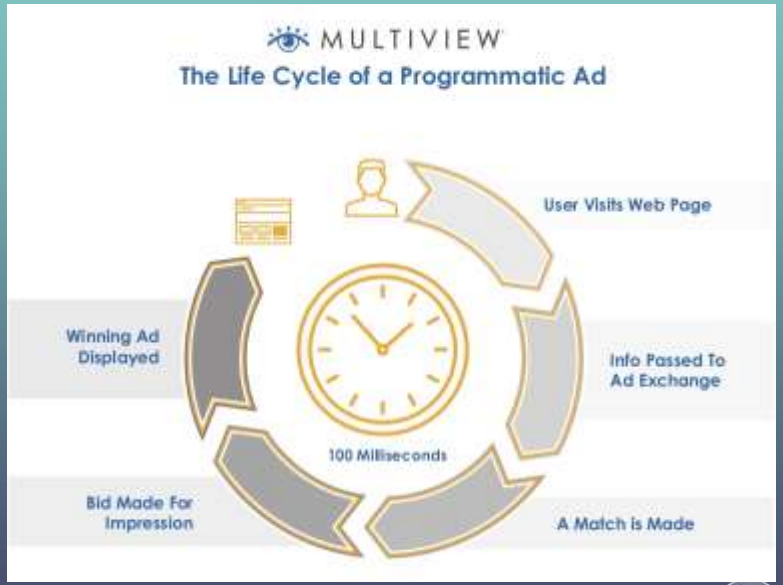
SSP: supply side platform
DSP: demand side platform

Real-Time Bidding (RTB)

Ad exchanges run auctions to determine which advertisers buys an individual impression in real time (<0.1 seconds)

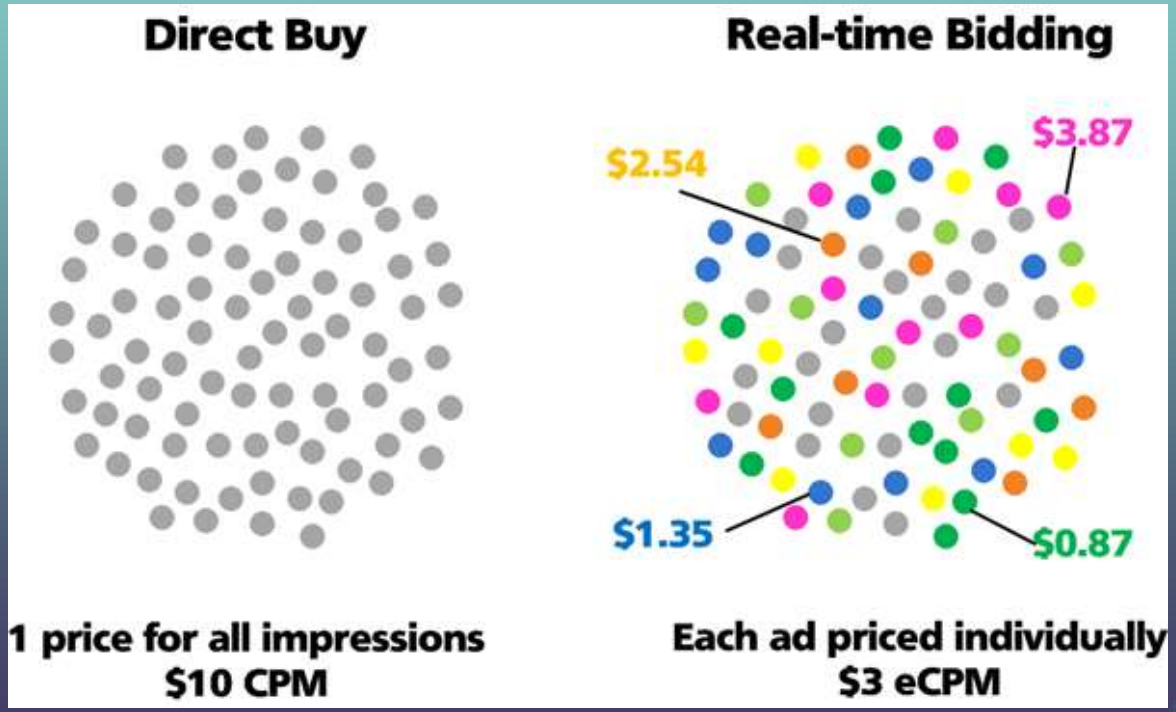
Real Time Bidders bid on individual impressions in real time as they arise using computer algorithms ("programmatic buying")

Usually second-price auction.



The Rise of Programmatic Advertising

Direct-Buy vs. RTB



CPM: cost per thousand impressions

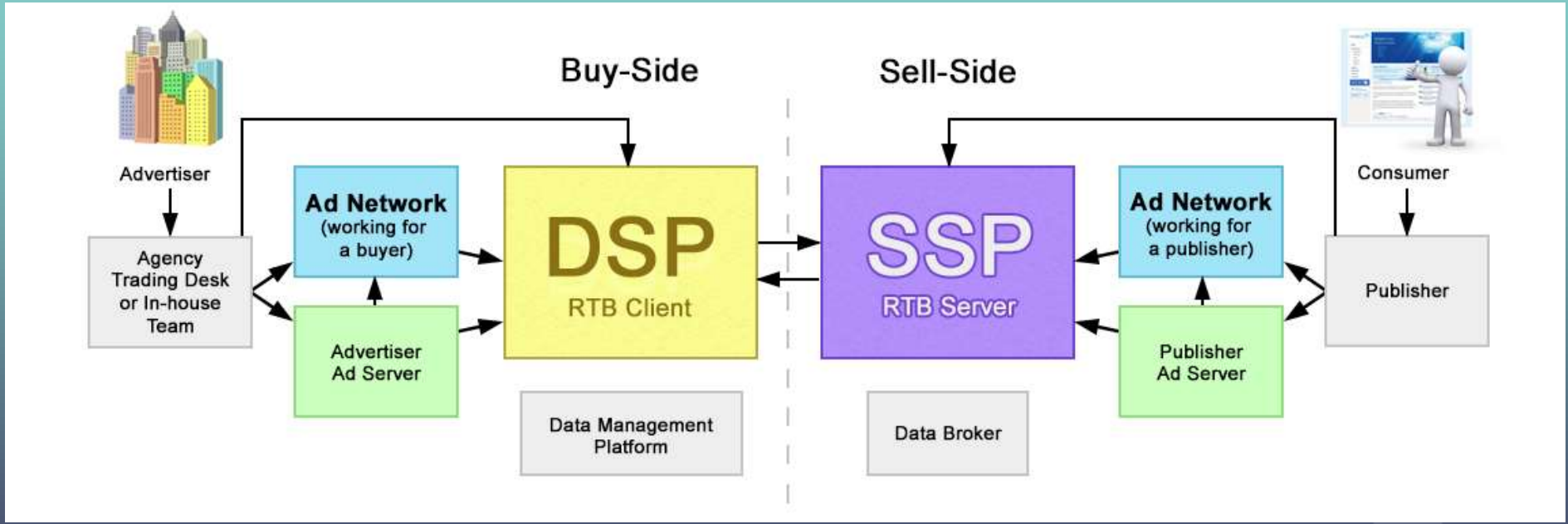
Ad Network and Ad Exchange

Players in the Space

Demand Side Platforms (DSPs) enable advertisers to
1) Use real-time bidding technology
2) Purchase inventory across multiple ad exchanges
3) Get analytics on campaign performance

Supply Side Platforms (SSP): Inventory management for publishers that allow them to access multiple ad exchanges per auction

The Ecosystem of display ad



Ad exchanges

Discussion

What are the disadvantages of RTB?

Direct Buying

Advantages:

- Guarantees ad message gets out (e.g., this weekend's movie release, retailer holding clearance sale)
- For branding advertisers, ensures brand-safe content

Disadvantages:

- Old fashioned, high contracting costs
- Salesforce & rate cards
- Bar of entry
- Hard to get premium spots on large publishers like the NYT

Real Time Bidding

Advantages

- Allows for incredibly fine targeting & buying!
- Bid for the expected value of an impression (user, webpage, time) rather than an audience
- Enables large-scale retargeting and behavioral targeting across multiple publishers
- Reduces transaction costs
- Facilitates ad inventory from small publishers who can't afford a sales force

Disadvantages

- Fraud, some loss of control (brand-safe content & ads)
- Many players take a 'cut' in complex ecosystem

Takeaways

Online display advertising continues to grow. Why?

- Consumers shifting time online
- Increasingly to mobile
- Online ads market minimizes transaction cost
- Market is complex but brings together advertisers & publishers like never before

Content Marketing

Content Marketing

Content marketing is the process of creating high-quality, valuable content to attract, inform, and engage an audience, while also promoting the brand itself.

Content marketing principles directly apply to SEO, display ads, social media campaigns, and can be more broadly applied.

Why content marketing?

Reputation: establish self as a thought leader in your industry.

Search: Prospects & customers find your answers to their questions online.

Reach: Long run benefit of improving reach at lower cost with library of great content.

Social media: Create value for customers to foster intimacy & retention.

Content marketing rests on . . .

Research & planning
- Know your objective & establish Key Performance Indicator (KPI)
- Know your audience
- Know your topic

Content creation
- Articles, images, infographics, videos, etc.

Content diffusion
- Paid & organic impressions via social, search
- Complete the loop: Track KPI & update best content

Content research example

Persona Marketing

Personas: The foundation of content marketing

Personas are a method of market segmentation wherein we collect a combination of qualitative and quantitative data to build archetypes of the members of our target audience

2 components:

- Segment elements (demographics, needs, objections)
- Humanizing elements (photo, name, personal details)

Why create personas?

- Foster customer-centrism
- What topics, medium, content depth, tone are relevant?
- Is content ratio in line with importance of each persona?
- Remind us that we are 'weird': our customer is different

3-6 personas is ideal

Segmentation elements of personas

Demographics: geographic location, age, gender, income and (possibly) ethnicity.

Lifestyle:

For B2Bs: What kind of company do they work for? Job title/area of responsibility?
For B2Cs: What kind of car do they drive? What do they do for fun?

Goals: What motivates them? Do they want to look better?

Segmentation elements of personas

Pain Points

What challenges do they face and how does that make them feel? How can you help overcome challenges or resolve problems to make their daily life or workday better?

Information Sources

Do they search online? Read magazines or newspapers? Talk to people in person?

Humanizing elements of personas

Humanizing elements:

- Name & photo
  - Customer may be different (e.g., gender, race, ethnicity) than you
- Hobbies
- Add real quotes from customer interview

Why? Create empathy for customers

Not 'extraneous' information: Only include elements that are relevant to customer identity

- Do we care if persona owns a dog? Yes, for pet clients (and possibly travel). No, for most B2B clients.

ABOUT PERSONAS

Steps to creating a persona (part I)

1. Define your goal (e.g., sales, leads, social engagement)

2. Brainstorm hypotheses for:
    - Needs: Jot down objection, need, desired experience for any consumer
    - Attributes
        - Demographics: Age, gender, location, education, family, job title
        - Psychographics: Values & goals

Steps to creating a persona (part II)

3. Validate hypotheses with research
    - Interviews (existing & prospective customers, salespeople)
    - Social listening (who follows you? what are they saying?)
        - Hootsuite
        - https://moz.com/followerwonk/
            - Click here for an example
        - https://klear.com/
    - Site analytics (e.g., Google Analytics)
    - Traditional market research (e.g., surveys)
4. Build Personas: Combine validated hypotheses into 3-6 personas

DEMOGRAPHIC information:

- Age 46
- $103,000 annual salary
- BSN from UC Davis
- MHA from Walden University (online degree)
- Married, two kids
- Worked in a large hospital system in CA after nursing school

THE PROBLEMS she has that IHI solves:

- "I need to balance cost cutting with maintaining quality and it's very complex."
- "Getting adoption of best practices is slow and not uniform."
- "I would love to be seen as more of a 'go-to' leader within the larger organization."

ONE DAY in the life:

- Attends lots of face-to-face meetings
- Conducts office hours in ICU to give nurses and physicians time with her during the week.
- Handles a significant amount of paperwork related to regulation and compliance
- Has to be "on call" for scheduling and staffing issues at any hour of the day

Her **VALUES AND GOALS**:

- Son is a junior in high school and her daughter will be a freshman next year; family prioritizing their finances to pay for college
- Prides herself on staying on top of emails and being responsive to all levels of her organization and team
- Strong advocate for work-life balance in the office but often works several hours in the evening except for Friday and Saturday
- Attends church regularly
- Encourages her staff to grow professionally

Her main **INFO SOURCES** and **WATERING HOLES**:

- SCCM enewsletter
- ICU Director magazine
- Office hours in departments
- Hospital cafeteria
- After work socialization with department staff on a monthly basis
- Informal chats with former colleagues in CA hospital system
- IHI Quality Innovators LinkedIn group. Hasn't posted yet; looks through ICU-relevant posts.
- Member of AACN

THE EXPERIENCE SHE WANTS when seeking out IHI products or services:

- Wants to be able to read comments and feedback on the IHI programs in the way that she reads Yelp reviews of restaurants
- Would like to conduct a "chat" when she is deciding whether or not to sign up for a program
- Wants to be recognized as a "fan" of IHI even if her attendance level is not what we consider high. She was an enthusiastic OS participant when she got her MHA in 2009.

Diane Director, BSN, MHA

Director of Critical Care at

Terre Haute Regional Hospital in Terre Haute, IN

Their **ROLE AND LEVEL SENIORITY** in detail:

- Reports to VP of Patient Care Services.
- Administrative responsibilities for a 32 bed ICU unit, 35 bed CVICU unit, and 4 cardiac inpatient units.
- Has budgeting power for 300 FTE staff ICU

Her most **COMMON OBJECTIONS** to IHI's products or services:

- Needs cost cutting guidance; doesn't know if Bedside to Balance Sheet is for her
- Wants more content on culture change that could enhance process improvements
- Needs more material on how to get senior leadership behind her efforts; mobility in the ICU was treated as an experiment in the eyes of the VP of Patient Care, not a way forward.
- RNs only get $500 a year in pro. development funds for non-degree programs; puts IHI content out of reach for her staff.

IHI Areas of Focus that she would be interested in: Quality, Cost, Value / Patient Safety
IHI Rings she would engage in (by %): Innovate (5%), Demonstrate Results (15%), **Build Capability (75%),** Disseminate Knowledge (5%)
IHI programs she has attended/resources used: OS courses, Rethinking Critical Care seminar, Survey Design W+A, WIHI broadcasts on ICU subject matter

Persona example: Institute for Health Improvement (provides education to health practitioners)

Kraft Mac & Cheese: Thumbnail persona

Julia

Woman, age 33 in Des Moines, Iowa
Busy mother of 2 boys ages 9 and 13
Divorced, earning $40K

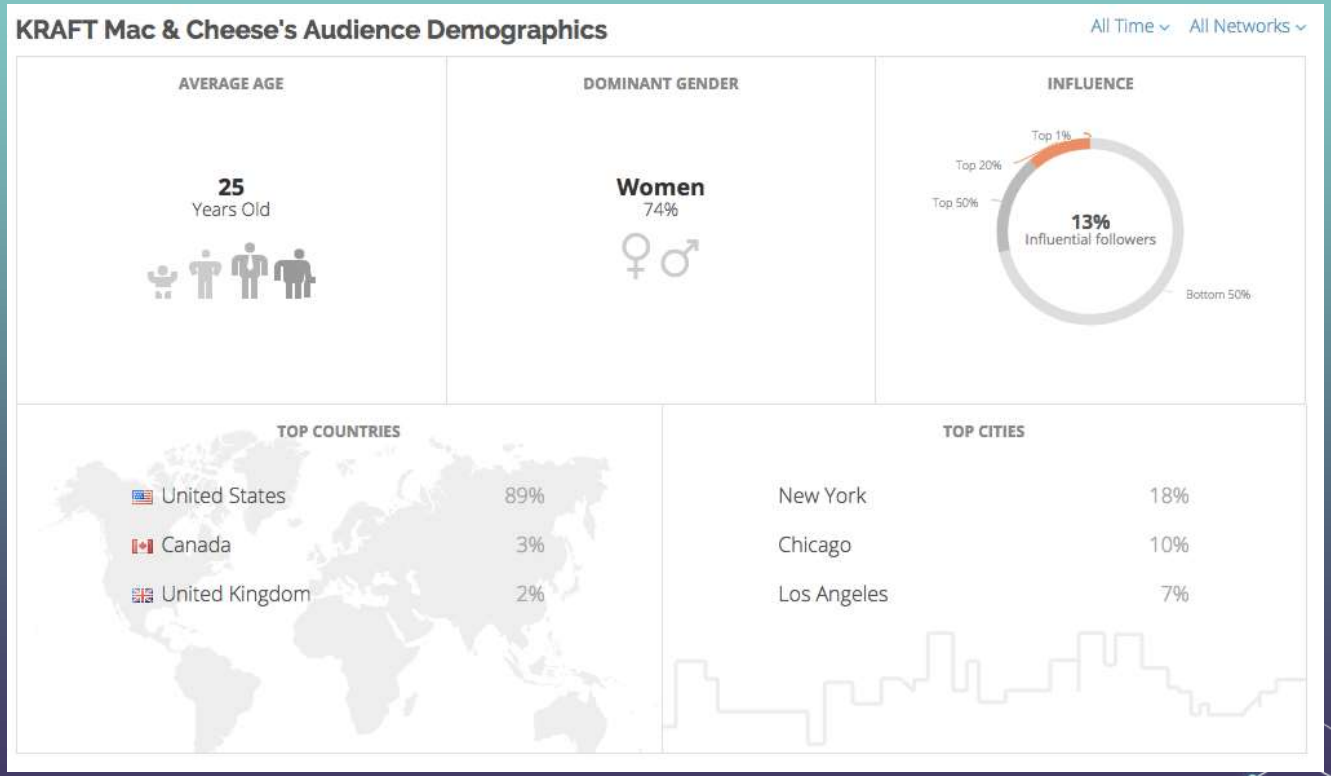
Values & Goals: Support academically successful & physically active boys
Needs: no-fuss, budget meals for young children

Objections: nutritional value of mac & cheese

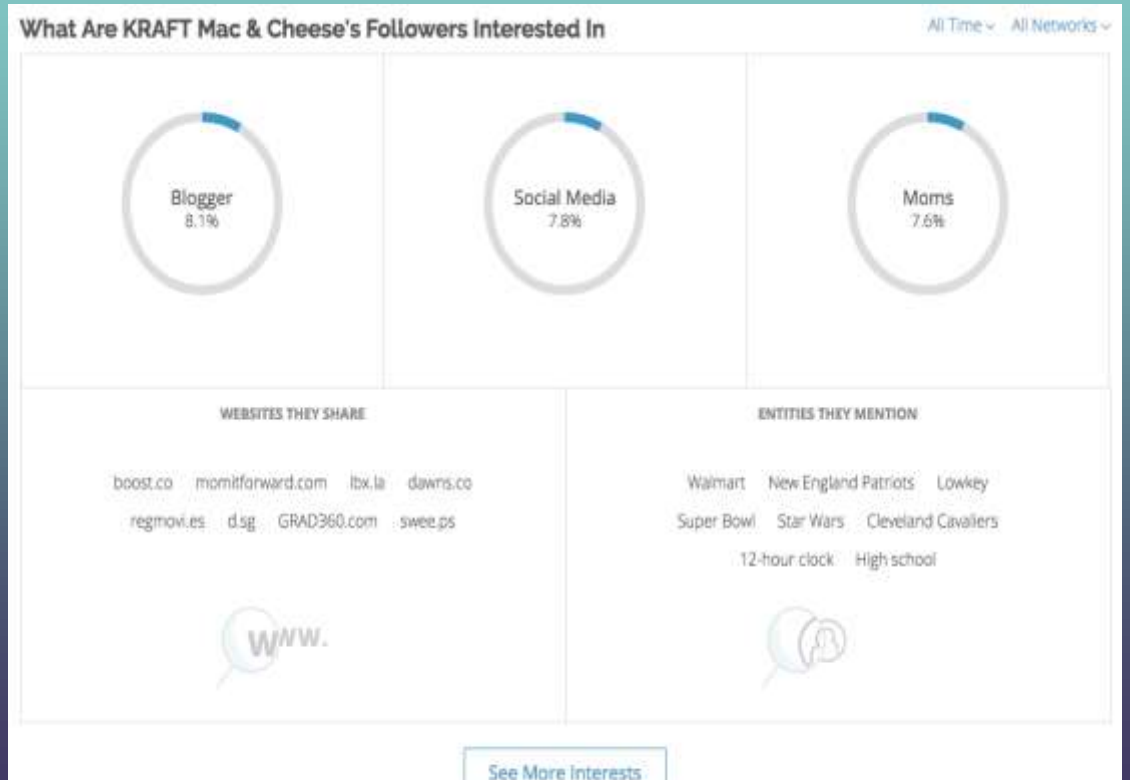
Experience wanted: quick meal prep and variety

Somewhat active on Facebook & Pinterest

Klear.com confirms that our (Twitter) audience tilts young & female



Klear.com's analysis of follower interests confirms 'motherhood' as important

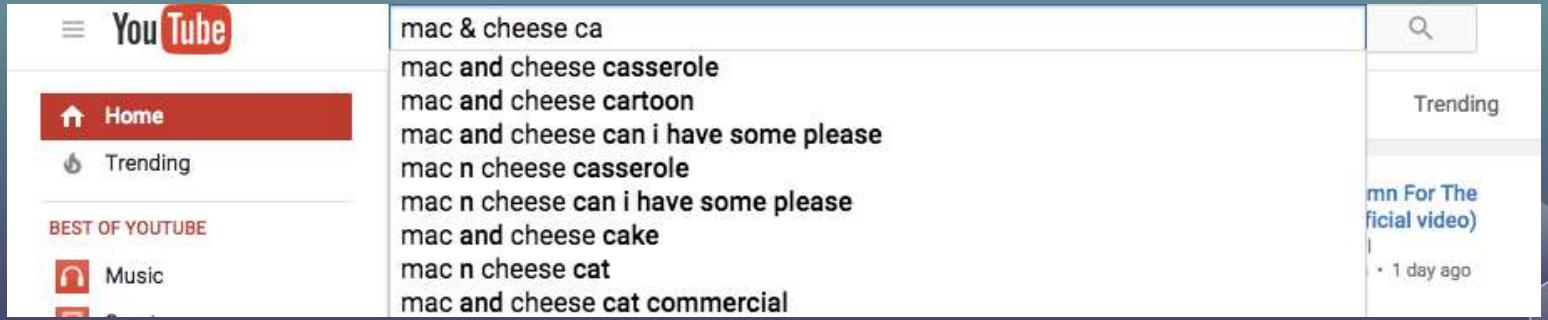


Content Creation

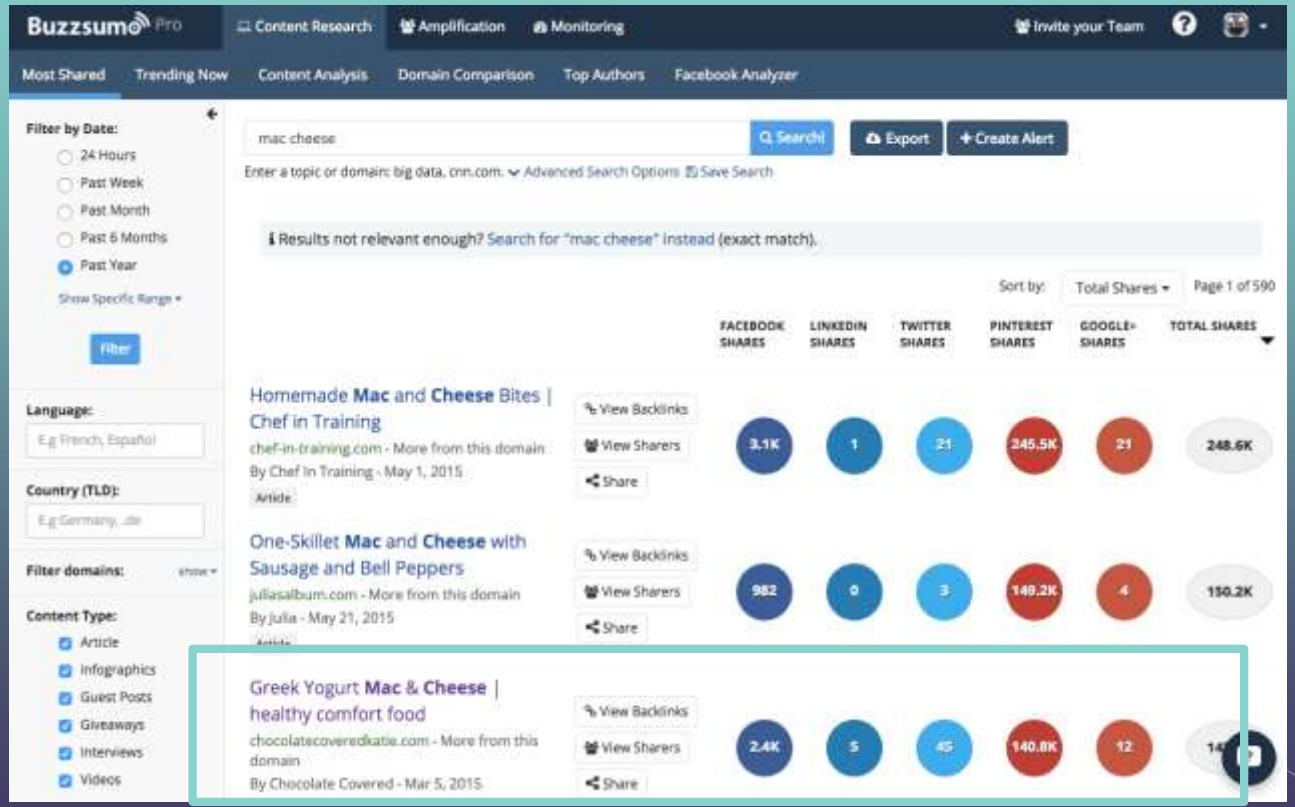
Research and identify hot topics

Identify popular topic, questions, terms

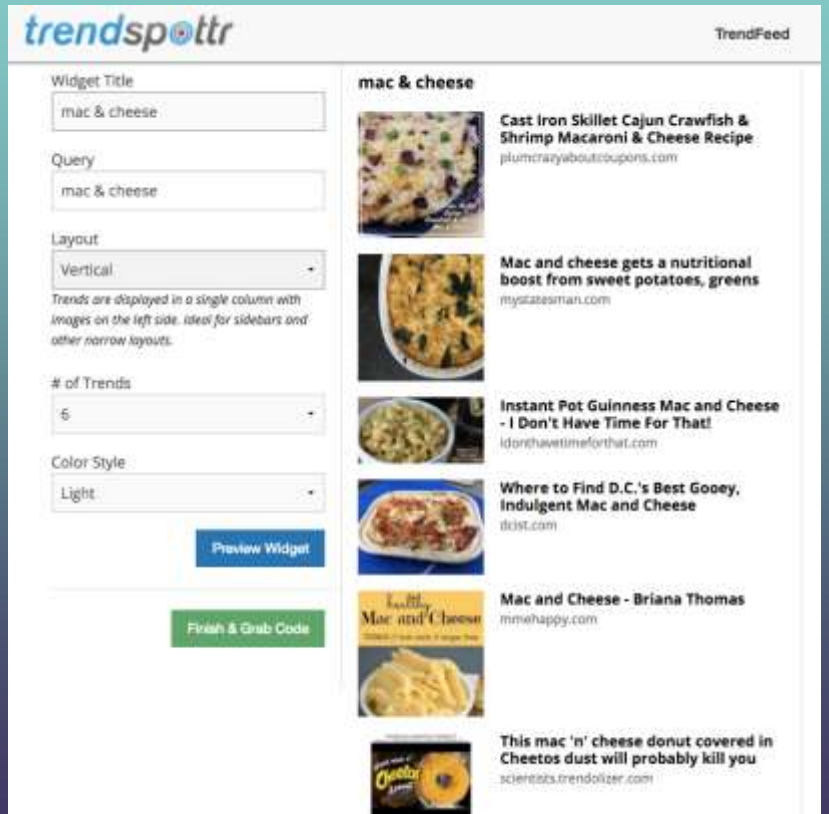
- Keyword research tools like Google Trends, Google Keyword Planner, Answerthepublic, Ubersuggest
- Search autocomplete tools (e.g., YouTube, Google)



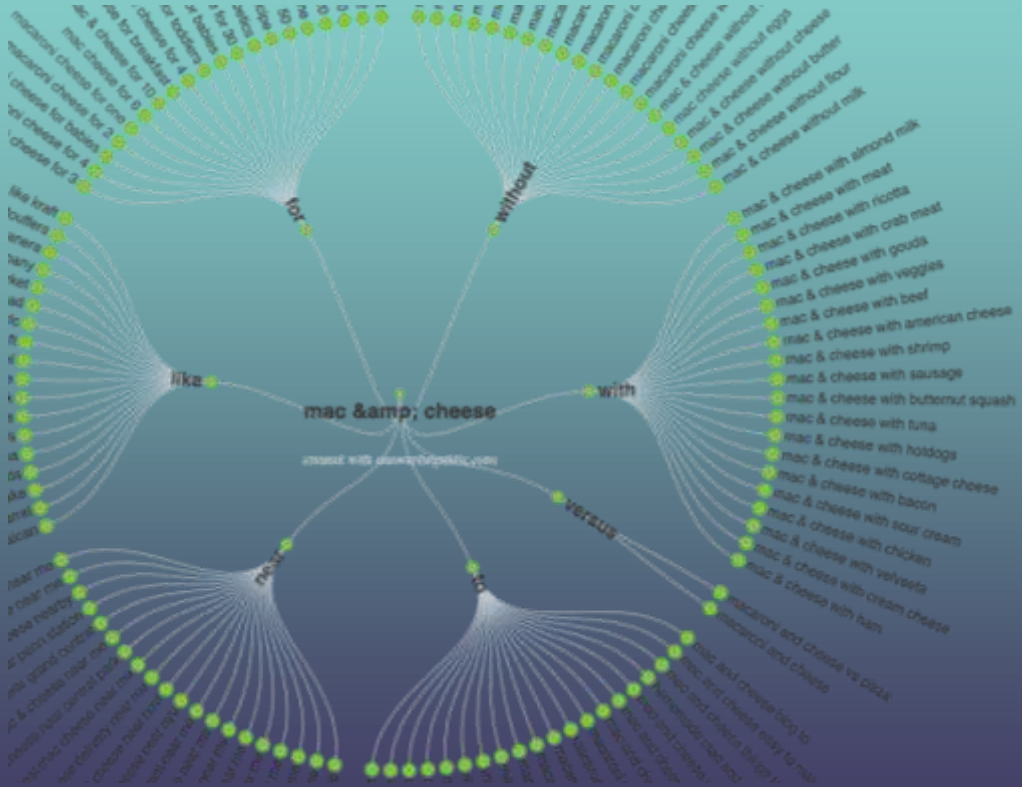
Using Buzzsumo to create trendy content



Using Trendspottr to create trendy content



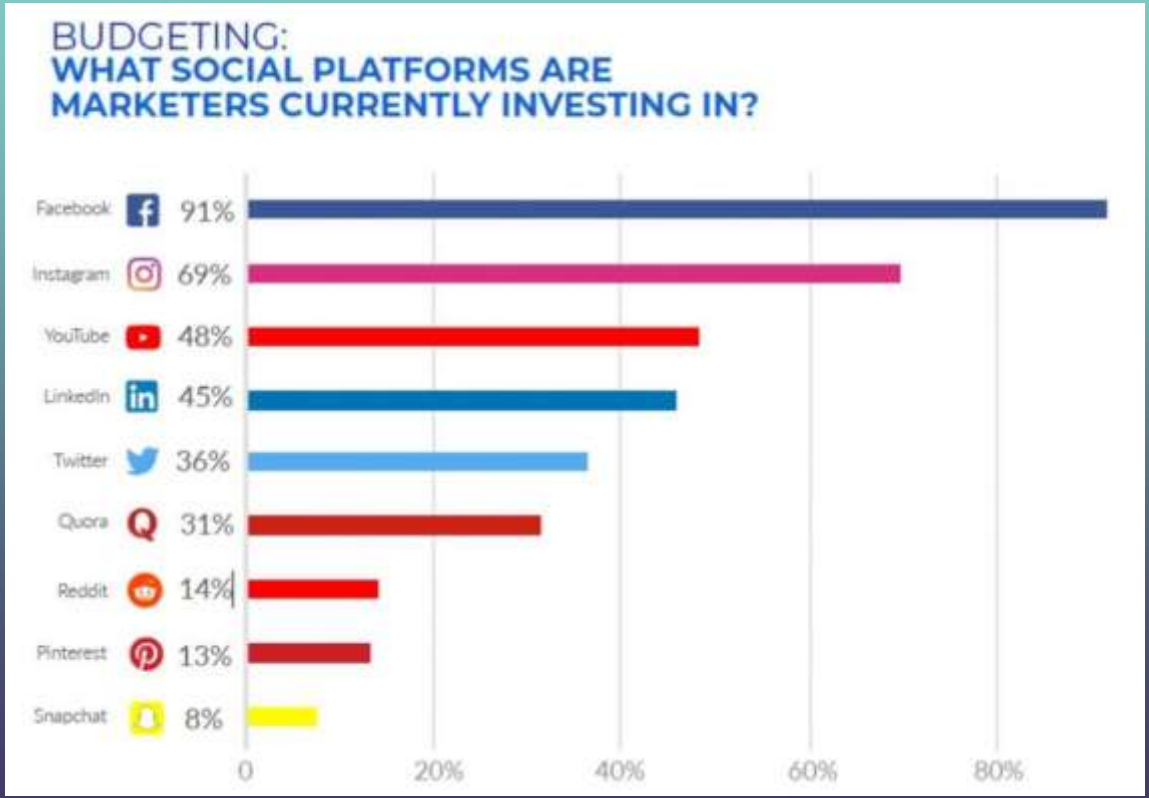
Answer the Public



Great yogurt recipe for Julia

Content Diffusion

Facebook dominates social media advertising market



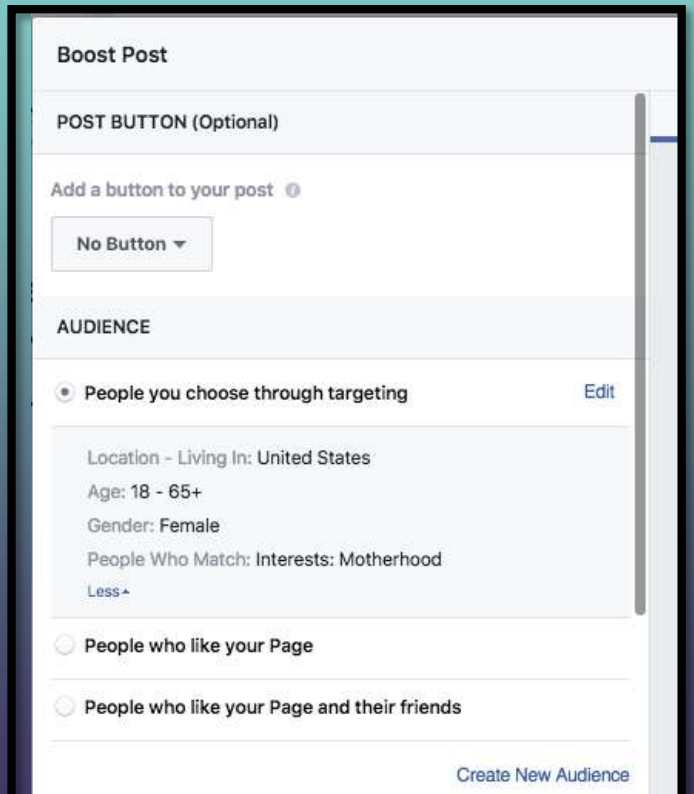
Why going beyond organic?

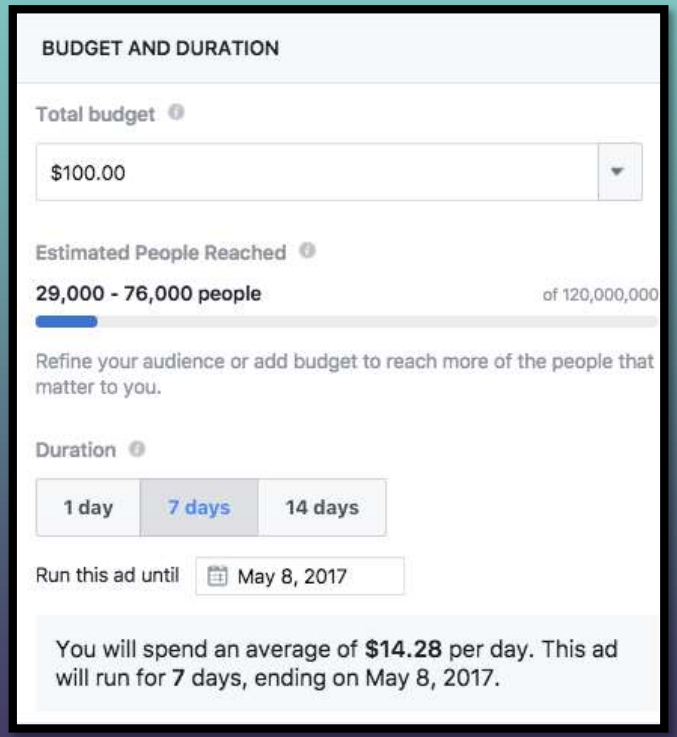
Organic reach: free distribution of page posts to fans.

Decline of organic reach on Facebook (16% in 2012, 6% in 2014, 2% in 2018)

- Competition from larger social network & greater sharing.

Buying Facebook ads: define target segment & get the reach/cost tradeoff





Click and Like Fraud

QUESTION

Why do people buy fake clicks/likes?

Click and Like Fraud

Publishers profit from clicks and likes, and they have incentive to engage in click and like fraud.

Your competitor may create fake clicks and likes on your ad to waste your advertising budget.

The competitor of your publisher may create fake clicks and likes so that you may terminate the relationship with your publisher.

Click and Like Fraud

Like farmers pay people in developing world
Remember: Fraud is everywhere (click, view, etc.)
But, Like fraud creates a lasting distortion (until the offending user is caught)

- Worse, to avoid detection, like farm users will 'like' pages that are not buying fake likes
- Like farm users hard to detect & removing real users destroys their user experience

Reminder

Today is the deadline for submitting your data project.

You can start your group course project. Information can be found on course website.

Course Project

Choose a company/brand and analyze its DM strategy, including:

Its website

Online sentiment (How users talk about the brand online? E.g., user reviews on platforms such as TripAdvisor/Amazon; online discussions on platforms such as Twitter/FB).

Is the company's official social media accounts (e.g., Twitter/IG/FB/YouTube) well managed?

Competitor Analysis and Consumer Analysis

DANIEL WELLINGTON

WATCHES JEWELRY GIFT SETS SMARTWATCH CASE SUNGLASSES WATCH STRAPS COLLECTIONS

steelseries Gaming Gear

foodpanda

Nintendo®

Course Project

Get your presentation ready by Nov 25 (Class B) or Nov 28 (Class A).

The order of presentation will be drawn randomly.

You need to submit your project report.

Course Project

Any questions?