



3 Insights in Digital Advertising

July 22, 2021

Wall paintings, papyrus posters, and calligraphy from ancient Egypt, Greece, and China were among the first forms of advertising, and over thousands of years, the concept and use of advertising, as a call-to-action tool, have not changed.

However, much else has changed—and the industry continues to evolve. The shift to online advertising has been a decades-long phenomenon, and we now have new and more places to advertise, including a Chinese company's recent use of hundreds of drones hovering above Shanghai to advertise its newest video game.

We believe the size of the global digital advertising opportunity over the next decade is likely underestimated. Advertising has evolved thanks to tools, technology, and data that make it easier than ever before to measure, personalize, and maximize the return on an ad dollar's spend. We believe this trend is likely going to continue.

We are particularly excited about many niche investible opportunities that are emerging as a result, including in programmatic ad technology, digital experience, marketing automation, social media management, and alternative demand-generation tools.

Having said that, we do also appreciate that data privacy and antitrust regulations are important risks that can create variability of ultimate outcomes.

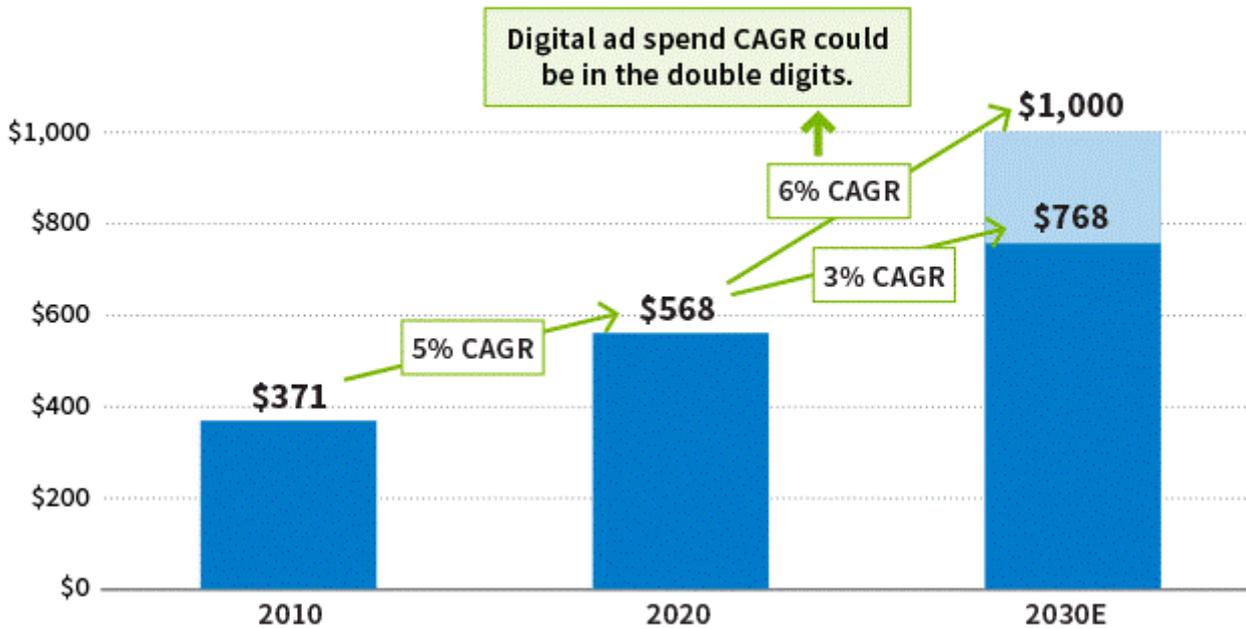
We Believe Advertising TAMs Are Underestimated

We know that forecasting is hard. It is especially prone to error during periods of disruption. Predictions made in

2015 likely underestimated the U.S. mobile advertising opportunity by a factor of four times. In a similar vein, we believe global advertising spend could reach \$1 trillion by 2030, meaning current projections are likely underestimated by more than 25%.

Global Ad Spending (All Categories, in Billions)

2030 ad spend could be underestimated by more than 25%. It is expected to accelerate to \$1 trillion in 2030—and 80% of it is digital.



Sources: William Blair, as of June 2021. Shows global advertising spend for all categories. CAGR refers to compound annual growth rate.

Ad spend has historically been linked to global gross domestic product (GDP). Although this may provide a loose proxy, we believe this linkage may not hold in the future for a variety of reasons: a change in the complexion of national economies driven by trends in digitalization, direct-to-consumer and services (rather than manufacturing) types of business, technology being a deflationary advertising tool, and increased ad supply.

Revenue pools are also shifting; we are likely at an inflection point where U.S. digital ad spend (which used to be television but now is the internet) will overtake offline spend (newspapers, billboards) for the first time in history. We believe this trend is here to stay.

The “aha” moment comes from the size of the underestimation. Every day the average consumer sees approximately 937 desktop ads, 461 mobile ads, 180 Facebook ads, 33 video/TV ads, 7 audio ads, 4 search click ads, and close to zero print ads.

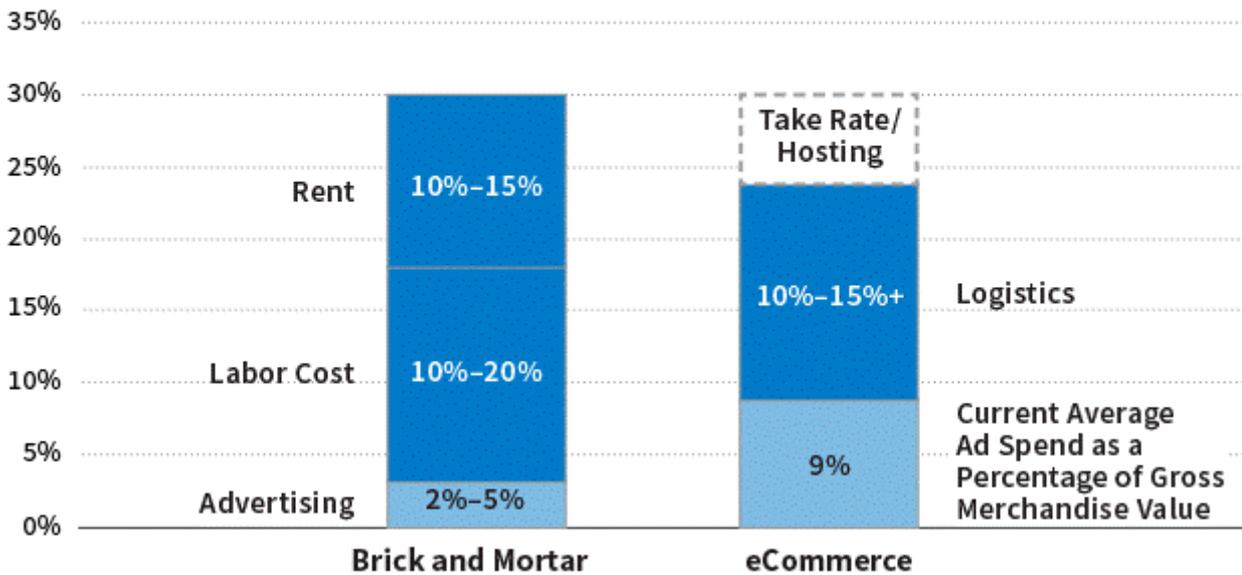
The shift of non-advertising budgets into the ad bucket will also drive higher-than-expected ad spend in the future. Consider this simple example. In the past, a big brand would open and operate a storefront in a shopping capital—say, Bond Street in London or Fifth Avenue in New York. However, an online-first brand can divert many of the costs associated with a storefront (such as rent and labor) to online advertising. Both methods are ultimately drivers for demand generation.

Lastly, new supply is being created. In the past, we had billboard advertising. Then we had TV advertising. This was followed by internet and mobile advertising. Today, even the lock screens on our phones can display dynamic,

personalized ads. New supply often creates new demand.

Illustrative Costs, Physical vs. Online (Percentage of Revenue; United States)

Do physical stores have a place in the ad budget of the future? The budget is there—just look at the income statement.



Sources: William Blair, company reports, When I Work, Department of Labor, and Bernstein estimates and analysis, as of March 2021.

The Nature of Advertising Has Changed

Our second insight, which is related to the first, is that advertising has evolved. There are five components driving this change in our view.

First, ads are more targeted: Tracking, personalization, and measurability have increased efficiency (and ROI).

In the past, advertising was largely about brand awareness—driving consumers into stores. More recently, however, it has become outcome based. The success of an ad now depends not on whether a consumer saw the ad, but whether the consumer purchased a product.

As the nature of advertising has changed, advertising has also become more targeted, personalized, and measurable. We now have machine-driven, rules- or intelligence-based, data-backed evidence about the best ways to show an ad on a given platform at a specific time to a certain group of people.

With traditional TV, advertisers assume that people watching Monday Night Football belong to a certain cohort in terms of age, interests, or other factors. Traditional TV ad buying was like throwing darts: You throw a few with limited targeting and see what sticks. Today, with more information and better technology tools, advertisers can say, “Jane Doe visited our website. We know her. She watches a certain genre of TV and likes the color blue based on historical shopping preferences; let’s target her accordingly.” Advertisers throw one dart because they know exactly where it will land.

As a result, the impact of the dollars spent on an ad can be measured. That has greatly increased the ROI, which in turn leads brands to spend more on ads.

Second, commerce is more connected: Customers used to discover products; products now discover customers.

Connected commerce, which we have discussed in the past, suggests that programmatic advertising is creating a way for products and services to discover their customers as a result of an integrated shopping experience.

One of our teammates did a test. He searched for back pain solutions on his desktop, then opened his Instagram. Within five minutes he was getting the same ads in both places.

Similarly, as a vegetarian, just a few years ago I had to make significant effort to find meals at restaurants that would appeal to me. Today, vegetarian brands find me—and it’s not just food. I get ads for vegetarian soaps, shoes, and candles as well. This is how well the online ecosystem knows my preferences, based on a combination of my online and offline behavior.

Some may have privacy concerns, which I will touch on later, but as my colleague Drew Buckley, CFA, said in *Digital Reality: What’s Next After Google Glass?*, “You give up an element of free will to get served ads that make your life easier by helping you find products you like.”

Third, areas of incremental growth have shifted: Ad agencies have given way to ad exchanges and programmatic advertising. The advertising value chain has become a lot more complex.

Advertising used to be simple: You had an advertiser, an agency, and a publisher. Agencies helped advertisers create campaigns and decide where to run them. A large part of the revenue pool associated with advertising growth was captured by agencies.

Today, this ecosystem has many more stakeholders and is highly complex. There is more data; there are more companies involved. The part that we are most excited about is programmatic advertising, which is essentially data-driven, rules-based ad spending.

Programmatic advertising is less about how an ad looks and feels than getting it to the right person on the right medium at the right time. There is some creative genius still involved, but the targeting is systematic. It connects supply (digital inventory) with demand (brands seeking to advertise) on a real-time basis.

A lot of that real-time supply and demand matching occurs through advertising exchanges that use customer data to create targeted ads. Essentially, these exchanges act as brokers between buyers and sellers of advertising,

saying, “Jane Doe recently searched for shoes on Google. She likely has intent to purchase shoes in the future. Let us show her an ad for shoes in the next X seconds as she visits a news website. Who wants to pay for that ad?” Advertisers bid, the ad exchange decides who won, and Jane Doe gets an ad when her screen refreshes.

Today, only half of every dollar a brand pays for advertising is spent on the ad. The rest is consumed by intermediaries who provide a value-added service.

Fourth, the emphasis on walled garden ecosystems hides long-tail opportunities: independent ad platforms are moving upstream instead of competing directly with the walled gardens.

Digital advertising has been dominated by “walled gardens,” which is a closed ecosystem in which all operations are controlled by the ecosystem operator—Google, Facebook, Alibaba, Tencent, etc. These companies provide supply and advertising-related tools and attract demand directly. Brands go to Google, and Google helps them find places to advertise in Google-related properties.

While 60% of every advertising dollar in the United States goes to the big companies—Amazon, Google, Facebook, etc.—there is a whole long tail in the open web outside of the walled gardens. We think these websites, blogs, etc. also present an interesting opportunity as they are often cheaper, more niche, and growing faster, albeit from a smaller base.

Fifth, as we spend more and more time online, the gap between offline and online ad spending is closing, and the lines between advertising types are blurring.

Ad dollars have historically followed consumers’ time spent, and as consumers have begun to spend more time online (almost eight hours online every day on average), we are seeing advertising dollars chase that.

And the type of spending is changing as well. Ad spend on online videos, social media searches, and e-commerce is increasing, while spending on TV is decreasing.

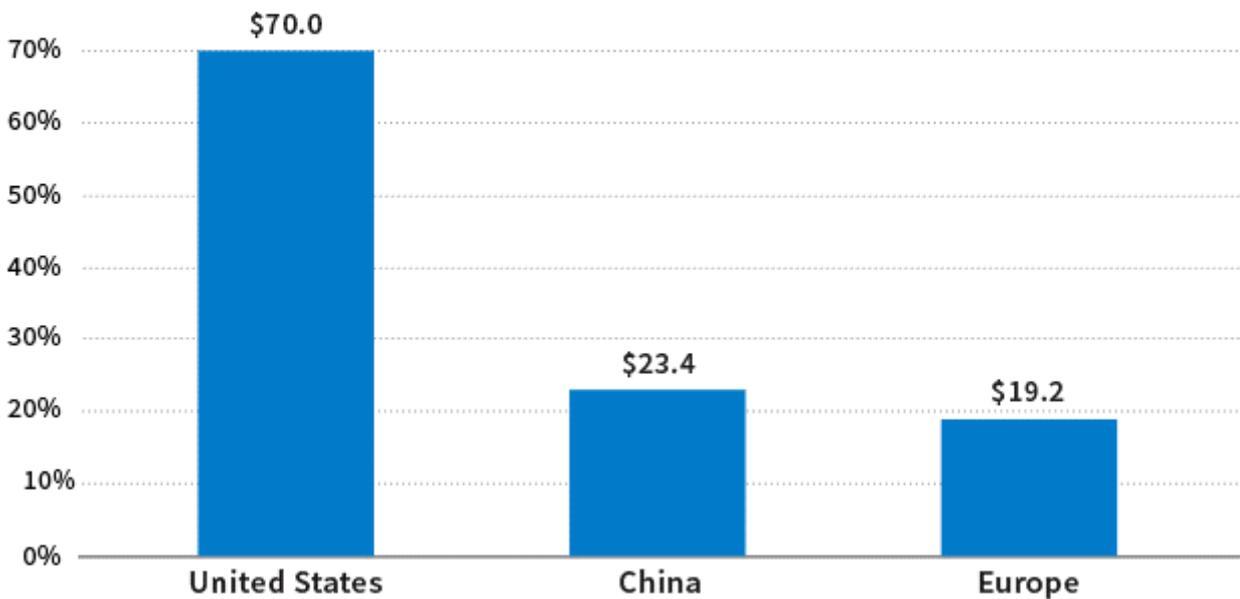
The lines between different types of advertising are also blurring. If you see an ad on Instagram, is it an e-commerce ad or a social media ad? Because we end up shopping via Instagram, it’s probably both. Does a search for something you want begin on Google, or does it begin on Amazon? Sometimes you go straight to the Amazon home page because Amazon immediately shows you what you want. We believe we will see more of this.

Investment Opportunities

As a result of these changes, we see growing revenue pools—and thus investment opportunities—in areas such as programmatic ad technology (see chart below), digital experience, marketing automation, social media management, and alternative demand generation tools like cashback and loyalty programs.

Lead Programming Ad Markets Worldwide in 2020, By Spending (In Billions)

In 2020, the United States was the largest programmatic advertising market worldwide, followed by China and Europe.



Sources: Statista, via OnAudience, as of November 2020.

While price and quality were historically important drivers in the consumer decision-making journey, we see customer experience as an important determinant going forward. Companies are increasingly obsessed about ways in which they can “delight” their customers.

Marketing automation technology—which enables the sending of personalized emails or SMSs, for example—is an area of emerging growth. If you go to a retailer’s website, you may get a follow-up email about your abandoned cart. These emails are becoming more personalized. They are based on the retailer’s assessment of what you may want to buy (based on your browsing history) and your preferred price point (based on what you put in your cart but didn’t buy or based on shopping history). A shoe retailer, for example, knows that I am likely going to pull the trigger on a deal for grey running shoes while you are gladly ready to pay a hefty premium for the next limited-edition Allen Edmonds.

Social media management should also see growth. These businesses help large companies manage their social media presence. If you have a problem with customers complaining about you on Twitter, how do you best manage that?

Lastly, we believe alternative demand generation tools—cashback programs, buy now/pay later, loyalty programs—can also help an advertiser generate future demand.

Nuances in Emerging Markets

Like most other business models, the evolution and growth of the digital advertising opportunity will look different

in emerging markets (EMs): Programmatic spend is lower given earlier-stage penetration, consumers seem more willing to engage with ad-supported services, mobile comes first, and services like fraud detection become more important.

U.S. advertisers will likely spend more on advertising because they know the purchase value can justify it. It is harder for an advertiser in EMs to spend, say, \$5 per consumer targeting an ad because the consumer transacts for a very low dollar amount.

On the other hand, in EMs there appear to be more opportunities in ad-supported services because consumers are less willing and able pay for an ad-free subscription. In developed markets, many people are happy to spend \$5 a month to avoid ads; in EMs, many people are not.

Additionally, in EMs, much of the advertising opportunity is mobile first because these economies skipped the desktop generation. That brings its own challenges, including a higher incidence of fraud. Fraud, in this case, is a bot clicking on ads, which counts as an advertising success but clearly is not. Ad platforms must often have more robust and innovative fraud-combatting tools in EMs.

The Privacy Debate

At the broadest level, we believe the concept, evolution, and application of privacy is different around the world. The European Union, for example, has led this debate with the creation of GDPR regulations a few years ago.

Recent announcements by Big Tech suggest that the collection and use of third-party user data will likely be de-emphasized in the future, which means first-party data that brands have on their consumers will become more valuable.

First-party data refers to the information companies directly collect about their consumers—what Google knows about you because of your search history, for example.

Third-party data refers to the information brands have collected about you indirectly. Google sees you searching for shoes and sells that data to a shoe retailer who purchases Facebook ads; you then see a Facebook ad for shoes.

Much of the privacy debate focuses on phasing out third-party data trackers. Data aggregators hold a lot of information, and regulators are coming down hard on that. But it is not just regulators who are driving changes: Apple recently updated its operating system so that every app you download will ask if you want your data to be tracked, a function that previously had to be implemented layers deep in the phone's settings.

These concerns vary by context. One survey showed that when gaming, 49% of people will pay to avoid advertising; when watching videos, a majority will not. So, in some cases we are okay with ads, and in some places we are not.

Similarly, when it comes to shopping, we are sometimes okay with being tracked—for example, many of us like it when Amazon provides recommendations, but we do not like it when Google reads our messages or Siri listens to our conversations.

There are many questions here: Who is the ultimate owner of consumer data? Is it the consumer, the government,

or social media platforms? If users own it, can they rent it out? That is a very interesting debate for the future, but for now, I think we can say that the wide variability of outcomes and the preference for first-party data and related analytics will likely create new and exciting investible opportunities.

The Opportunities: A Recap

In summary, we see many new and emerging areas of opportunity for active managers:

- Programmatic ad technology
- Digital experience creation
- Marketing automation and data analytics
- Social media management
- Alternative demand-generation tools like cashback and loyalty programs
- EM-specific business models such as mobile first and anti-fraud tech tools

As active managers, we are excited about the evolution of the global advertising opportunity in the years to come.

Jayesh Kannan, CFA is a research analyst with the global equity research team.

Disclosure:

This content is for informational and educational purposes only and not intended as investment advice or a recommendation to buy or sell any security. Investment advice and recommendations can be provided only after careful consideration of an investor's objectives, guidelines, and restrictions.

Information and opinions expressed are those of the authors and may not reflect the opinions of other investment teams within William Blair Investment Management, LLC, or affiliates. Factual information has been taken from sources we believe to be reliable, but its accuracy, completeness or interpretation cannot be guaranteed. Information is current as of the date appearing in this material only and subject to change without notice. Statements concerning financial market trends are based on current market conditions, which will fluctuate. This material may include estimates, outlooks, projections, and other forward-looking statements. Due to a variety of factors, actual events may differ significantly from those presented.

Investing involves risks, including the possible loss of principal. Equity securities may decline in value due to both real and perceived general market, economic, and industry conditions. The securities of smaller companies may be more volatile and less liquid than securities of larger companies. Investing in foreign denominated and/or domiciled securities may involve heightened risk due to currency fluctuations, and economic and political risks. These risks may be enhanced in emerging markets. Different investment styles may shift in and out of favor depending on market conditions. Individual securities may not perform as expected or a strategy used by the Adviser may fail to produce its intended result.

Investing in the bond market is subject to certain risks including market, interest rate, issuer, credit, and inflation risk. Rising interest rates generally cause bond prices to fall. High-yield, lower-rated, securities involve greater risk than higher-rated securities. Sovereign debt securities are subject to the risk that an entity may delay or refuse to pay interest or principal on its sovereign debt because of cash flow problems, insufficient foreign reserves, or political or other considerations. Derivatives may involve certain risks such as counterparty, liquidity, interest rate, market, credit, management, and the risk that a position could not be closed when most advantageous. Currency transactions are affected by fluctuations in exchange rates; currency exchange rates may fluctuate significantly over short periods of time. Diversification does not ensure against loss.

There can be no assurance that investment objectives will be met. Any investment or strategy mentioned herein may not be appropriate for every investor. References to specific companies are for illustrative purposes only and should not be construed as investment advice or a recommendation to buy or sell any security. Past performance is not indicative of future returns.

Copyright © 2020 William Blair & Company, L.L.C. "William Blair" is a registered trademark of William Blair & Company, L.L.C. No part of this material may be reproduced in any form, or referred to in any other publication, without express written consent.