

Israel's Growing Presence in the Digital Advertising Industry

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You may notice more advertisements that feel specifically targeted to you while you browse web pages and social media feeds. Chances are increasingly good that you can thank (or blame) an Israeli company for their placement.

Israel's famed "Start-Up Nation" prowess in technology and innovation extends to the digital advertising market, which is expected to reach \$375 billion worldwide this year. The automatically appearing banners, pop-ups, and links that push products and services targeted to you based on your browsing history, search queries, social media activity, and e-commerce shopping are called programmatic advertising. Israeli companies are a growing presence in programmatic advertising, particularly in a small but growing corner of the industry called advertising networks.

To recognize the increasing importance of Israeli companies in this market, it is worth examining the broader digital advertising landscape and how it came to be.

The Rise of Digital Advertising

Digital advertising evolved rapidly since the invention of the web browser in 1994. Direct placement of banner ads on popular web sites morphed into an advertising ecosystem that often resembles trading in financial markets.

Google and Facebook have come to dominate the digital advertising landscape. Back in 2000, Google introduced its "pay-per-click" AdWords auction system, in which sponsors bid against each other for the right to have their ads rank at the top of search results for particular words and phrases. Twenty years later, Google's search advertising revenue reached \$104 billion. Today, Google search revenues account for 15% of total global advertising expenditures – including traditional media such as TV, print, and billboards – and 31% of global digital media advertising.



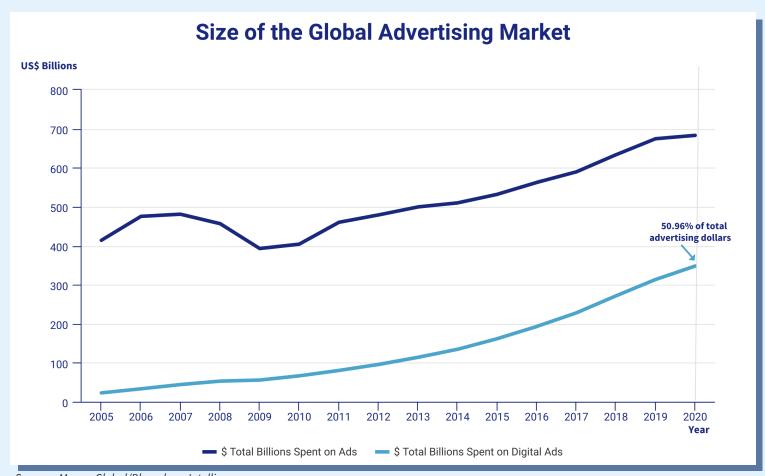
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Within just five years of Facebook's 2004 launch, the social media service rapidly became another dominant digital advertising platform. Advertising revenues were \$84 billion in 2020, or 12% of global advertising expenditures and 25% of digital advertising.

Both Google and Facebook offer advertisers unparalleled data for targeted ads. Users reveal not just their interests when they type words and phrases into Google's search bar, but also their geographical location and even whether they are using a desktop or mobile device. Social media such as Facebook and Instagram (also owned by Facebook) provide detailed information based on user posts and interactions. Even with the increasing pressure on tech platforms to enhance privacy protections, user data on social media sites remain abundant, comprehensive, and cannot be easily matched elsewhere.

Global advertising expenditures are expected to reach \$750 billion in 2021, reflecting 3% average annual growth. Digital advertising, however, is growing closer to 12% per annum as digital replaces traditional media. Digital crossed 50% of total advertising expenditures for the first time this year, and over the next several years, analysts expect digital advertising to reach 2/3 of total global spend.



Sources: Magna Global/Bloomberg Intelligence

Increased revenue at Google and Facebook is driving market growth, but so are proliferating technologies and platforms such as Connected TV (CTV), streaming video, and e-commerce sites. Television sets connected to the internet (CTV) can collect user data like other devices, allowing advertisers to insert ads targeted to specific viewers. While some streaming services such as Netflix rely exclusively on subscription fees, others are supported, at least in part, by advertising revenue. Viewer habits are tracked much more precisely than traditional Nielsen ratings, creating greater value for advertisers.

Perhaps the biggest potential lies with Amazon, Wal-Mart, Target, and other large e-commerce merchants. Amazon already accounts for as much as 8% of total digital advertising expenditures. Large e-commerce sites provide advertisers with the hard to duplicate ability to target consumers shopping in real time.



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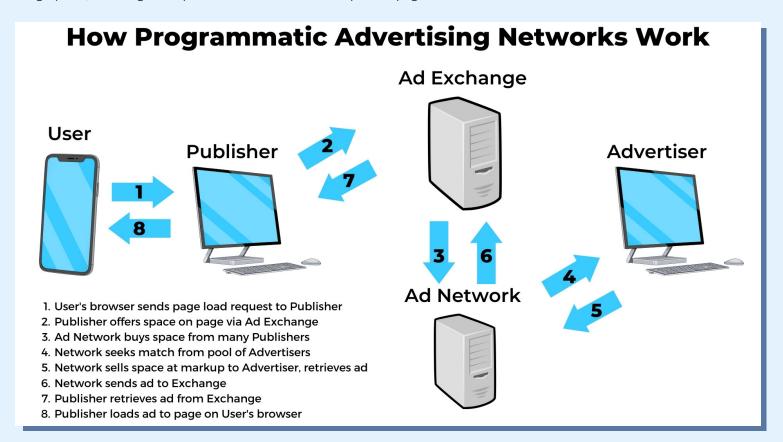
How Do Online Advertising Networks Work?

While Google and Facebook are likely to remain dominant, emerging channels are creating opportunities for additional market participants. Traditional mass media was expensive and therefore conducive mostly to large brand advertisers. Digital media, on the other hand, lowered barriers for advertisers of all sizes. Reams of user data and more precise targeting allow small brands with modest budgets to advertise to niche markets, and they allow large brands with big budgets to customize their messaging. As the number of advertising market participants exploded in recent years, internet technology companies created automated services and exchanges to match advertising demand with supply.

Advertisers, particularly large advertisers, can place direct digital advertising with Google, Facebook, and other internet services, apps, and sites. Increasingly, however, advertisements are traded on exchanges or networks that resemble financial markets. There are several exchanges that match demand to insert display, video, or mobile ads onto web sites, apps, or other content supplied by digital publishers. Exchanges created standards for data sharing and advertising formats so that targeted ads can be automatically inserted in mere milliseconds. Because of its automated nature, the trading of available publisher advertising inventory has come to be known as programmatic advertising.

The decentralized nature of the exchanges also removed barriers to entry for international buyers and sellers. Among the traders on the exchanges are companies, including some Israeli ones, called advertising networks. Of course, advertising networks have been around for years as suppliers to television, radio, and print publications. Networks aggregate inventory, such as airtime or page space, from a variety of traditional media suppliers to be sold in bulk to advertisers. Digital ad networks expand this capability to millions of websites, app developers, streaming video platforms, CTV, and even video games.

Leading ad networks allow advertisers to reach highly targeted demographics in a single automated transaction, even if these demographics peruse content from various publishers. Many ad networks act as market makers, purchasing ad space – either directly from publishers or, increasingly, on the exchanges – and reselling with a markup to advertisers. The infographic below presents a simplified version of how these transactions occur – how a river of personal data (represented by the blue arrows) allows ad networks, trading on the exchanges, to match batches of available ad space with ads from sponsors seeking to target specific demographics, resulting in the placement of ads on user-requested pages – all within about 200 milliseconds.





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The largest exchanges and networks are operated by the dominant advertising platforms such as Google, Facebook, and Amazon, but lucrative niches are growing rapidly. Israeli technology companies leveraging their skills in software, artificial intelligence, and big data analysis are nimble leaders in this field.

Many of these companies recently went public with expensive valuations. Two notable companies with recent IPOs are Taboola and Outbrain. These two Israeli ad networks dominate "native ads" on news web sites.

Native ads are designed to blend in with other content on a web page. In many ways, Facebook is the leading native ad platform for digital content, since advertisements look like other posted content on its newsfeed. Taboola and Outbrain seek to replicate this newsfeed experience on independent web



Image by Alexsl / Getty Images / Canva.com

sites outside so-called "walled gardens" such as Facebook and Google. Together Taboola and Outbrain are leaders in native news site ad insertion, but at present this niche only represents several billion dollars of the \$750 billion global pie.

Another leading advertising network is Codefuel, owned by Israeli digital advertising company Perion Networks. Codefuel is a rapidly growing ad network that primarily places display ads on web sites.

A particularly intriguing emerging niche is ad placement within video games, and the Israeli company Ironsource is a leading ad network in this space.

The Cookie Challenge

Outbrain and Taboola are growing rapidly, as is native advertising more generally, but they face near-term challenges. Much of their data collection relies on third-party "cookies." Cookies are small data files inserted by a web browser onto a user's hard drive to collect information about the user and to recognize the user when he or she opens a web page. Cookies are a very common data collection tool, but privacy concerns are pushing the market away from their use.

Google's Chrome browser recently announced a complete shift away from third-party cookies over the next two years, matching the current practice of other browsers such as Safari, Firefox, and Edge. Cookies will shift toward opt-in systems rather than the current opt-out, potentially damaging their usefulness to publishers, advertisers, and advertising networks. Investors, however, believe native advertising networks such as Outbrain and Taboola will be able to rely on other data sources – sometimes called contextual data – to maintain their competitive edge.

Evolving privacy standards are just one of the challenges Israel's ad networks face. Others include advertising overload, government regulation, and direct competition from much larger players. Still, so far, Israeli upstarts are making substantial inroads into rapidly growing digital advertising niches.

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