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Honest impressions

Why blockchain is the new black for media buying

IBM Institute for Business Value

Media buys into blockchain

Blockchain appears poised to solve some of the most pressing problems facing advertisers and publishers. A distributed ledger technology, blockchain can change media buying as we know it by enabling parties in a network to agree on a transaction without the need for third parties or centralized control. Transparency created by a fully adopted blockchain can address trust, control and arbitrage concerns in the supply chain to restore billions lost to middlemen or eaten up by fraud, stave off brand safety issues and rebuild consumer confidence.

From “soaps” to scrubbing the supply chain

Half a century ago, advertising fed hundreds of publications, tens of television channels and a few hundred radio companies and local markets. One of the earliest forms of advertising, sponsored “soap operas” reached stay-at-home caregivers and decision-makers. Generations of technologies followed, leading to the fragmentation and availability of content over different media.

Now that nearly all digital media is connected through an IP address, the industry has evolved from using content as a proxy for audiences to targeting segmented audiences through data and technology. With the programmatic stampede — ad buying

computers using data to decide where to place ads and how much to pay for them — clever engineers created an automated tool that served advertising, but created inefficiencies. These automated workflows led to issues around transparency, counting and reconciling. Brands using programmatic advertising pay a technology tax effectively accounting for about 50 percent of spend.¹ And although programmatic advertising is more labor efficient than manual ad buying, the process now requires the services of multiple middlemen.

With the diversity and scale of legacy and new technologies executing different types of media, consumer media consumption

fragmentation across devices and marketers’ expectations of a holistic view into how their media touches a consumer, the media supply chain has become complex and increasingly untrustworthy.

The media supply chain requires a great deal of transparency into how and where money is allocated. A baseline understanding of media spend is critical to assess the role and impact of other factors, such as fraud and the value of tools and technologies. Even in the best-case scenario, one-third of views are likely fraudulent.² And forecasts say ad fraud could cost brands more than USD 50 billion by 2025.³

Bringing trust to media buying

Cleaning up

Owner of personal-care brands that include Dove, Unilever is one of the largest advertisers in the world.⁴ Unilever spends billions on marketing and advertising globally, about a quarter of that in digital.⁵ In 2018, working with IBM and FusionSeven, Unilever created a minimum viable product (MVP) to pilot for blockchain for media in conjunction with Mindshare/Group M.⁶

A key objective of the project was to seek a solution using blockchain and smart contracts to achieve maximum accuracy on the digital reconciliation process with the lowest possible management cost.

After the initial phase and learnings, Unilever is now in the early stages of phase two with several other brands and members of the ecosystem to test a solution that will have a bigger impact and scale.

Just as the internet made it possible to freely distribute information online, blockchain does the same thing for transactions. Conceived a decade ago to support cryptocurrencies, blockchain has infiltrated other industries, from financial services, to food supply chains and, more recently, to digital advertising. With no centralized party to oversee ad buying, advertisers and publishers can interact directly and automatically with agreements and smart contracts enforced through the blockchain, effectively ousting the intermediary. Using a distributed system, advertisers will have the chance to audit each time an ad is fetched from its source and is countable. And as every transaction adds new information to the blockchain, an irreversible trail and auditable digital ledger of transactions is created.

Blockchain can bring trust to digital ad buys because:

- Blockchain offers greater digital ad transparency and an efficient, single and unified view of how media is purchased and delivered. For example, it allows an advertiser to know how much it has spent with each member of the media supply chain, including ad tech companies and specific publishers. Instead of collecting data using various manual means or software applications, advertisers can view all transactions of all partners on the blockchain.
- Blockchain enables the supply-chain network to exist in a secure way, creating the right visibility and security for counterparty transactions. Security, privacy and transparency co-exist on the blockchain platform. Two counterparties can securely communicate with each other publicly in a marketplace where others can't tell they are talking to each other, or about what.
- Blockchain can trace a transaction as it happens without being dependent on people auditing books or pointing to various applications. Data owners can securely share their assets without exporting or handing them over to another stakeholder, resulting in better engagement among the marketer, the agency and the supply chain.

Building block by blockchain

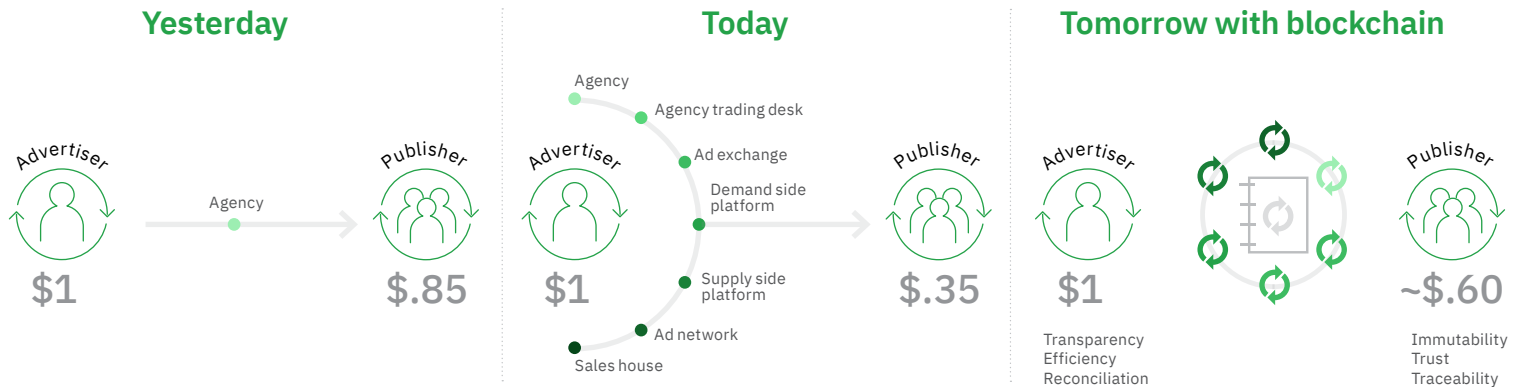
Media buying, then to now, has changed (see Figure 1). Beyond sheer transparency, there are many ways that blockchain can improve online advertising:

Reconciliation. When it comes to billing reconciliation, an enormous amount of overhead and human effort is spent on the front end to collect and match data from multiple partners across various platforms. With a typical campaign resulting in billions and billions of

impressions, it's physically impossible to check all of them. A platform with matching algorithms can automate data collection on the front end to reduce resource hours, as well as remove the human element out of the reconciliation process in the middle and reduce discrepancies. But even with automation reducing discrepancy, not all is being caught. Blockchain-enabled solutions have the functionality to produce near zero-discrepant transactions. As an insertion

order (IO), or purchase order between buyer and seller, is issued, a tag is dropped by each of the partners. Data collection is automated from day one, resulting in a significant reduction in both resource hours and discrepancies. Smart contracts validate all terms and conditions of a contract and clearly define what will be an accepted impression. Buyers know what they owe, sellers what they'll be paid, and an accurate invoice within acceptable terms is released so that commerce can proceed without delay.

Figure 1
Media buying: Then and now



Payments. Online ads are likely sold three or four times through intermediate players. Usually, publishers use a supply-side platform (SSP) to optimize their earnings, then offer their inventories for sale to a wide range of exchanges and demand-side platforms (DSPs). In such a noisy space, waste becomes prevalent, or terms of an ad contract falsified with hidden charges contained in the fine print. Wasted ad spend owing to fraud alone adds up to USD 51 million every day, or USD 19 billion by the end of 2018.⁷ Blockchain-based ad buys combine technologies from blockchain and advertising to create payments transparency, verify and enforce all terms of payments and provide a clear trail of cash flow. Marketers can follow the money from buyer to publisher, make sure everyone in the media supply chain is who they say they are, and have a direct line of sight to where and whom payment is made. Invoicing done right the first time moves the flow of funds forward at a more efficient clip.

Identity. Blockchain creates an environment where more and better data can be gleaned from customers, while offering proactive control and making it more difficult for unauthorized users to exploit it. Customers understand that advertisers covertly use their data to target them, often for products or things they may not want. For example, a sugary-snack-foods manufacturer may target those who frequent or “like” Facebook pages dedicated to diet and healthy living, with the goal of tempting that particular market segment. The context of how identity is used and is exposed to counterparties is about privacy and giving the consumer control over their own data. It’s like having an artificial intelligence (AI) agent in a device network mediating on the consumers’ behalf based upon a predefined set of rules. For example, a wearer of contact lenses can consent to be marketed to by the maker of a certain brand. This connects advertisers to consumers, leading to enhanced trust between the two since privacy is given with permission. Blockchain offers a new level of consumer protection, since advertisers can more effectively reach consumers without compromising their privacy.

Consensus, collaboration, trust and transparency

For those who want to explore the future of blockchain in ad tech, and its potential for massive industry and foundational disruption, we offer the following observations:

- *All parties, all in.* To fully get under and understand blockchain’s potential requires everyone’s full and open collaboration. Strong governance models and the willingness to give up certain points of transparency are needed to usher in a better way of doing business on a blockchain platform.
- *No room for fake promises and vague numbers.* The distributed ledger is the single verified source of truth, and ledger participants must engage honestly to reap the collaborative benefits. Cheating within the community will not occur if the cost of that behavior is significantly higher than the gains.
- *The blockchain will pave the path to self-sovereign identity.* Decentralized networks safeguard privacy and trust, where transactions are secure, authenticated and verifiable, and endorsed by relevant, permissioned participants.
- *Real security for each media transaction.* A major shift using blockchain technology is immutable identity. By establishing immutable identities with unique private keys, transactions can be authenticated through math, not probability.

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