How Blockchain Will Change Marketing as We Know It

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ABSTRACT

Blockchain is a special type of database that cannot be easily manipulated or hacked. Sometimes called distributed ledger technology, the database is shared by many computers, called nodes. The components of the database are broken up into blocks or sheets. One of the ingenious ideas is that the end of each block contains a cryptographic signature. This signature (sometimes called a digest or a hash) summarizes all the information in the block, and any trivial change in the data in the block causes the signature to be completely different. This last line of the block is then repeated as the first line of the next block -- which is where the "chain" comes in. This feature makes a blockchain immutable. If anyone tries to edit an old block (rewrite history), the block signature will change, and the network will see that the block signature does not match the first line of the next block. The network throws out the corrupted block and automatically replaces it with the original. Hence, it is practically infeasible to alter history to commit fraud or unwind unwanted transactions. Given that most of the blockchain applications have been focused in finance, the technology has been largely under the radar screen in marketing. We argue that blockchain will fundamentally impact the practice of marketing. There are potentially large rewards for the early adopters in marketing – and costs for those left behind by this innovation.

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1. Introduction

Blockchain has important implications for marketing and advertising. But according to The CMO Survey, only 8% of firms rate the use of blockchain in marketing as moderately or very important.

Blockchain technology is poorly understood and subject to a lot of hype. This combination creates a natural barrier to entry and has likely caused marketers to take a "wait and see" approach. However, there are many reasons to invest the time now to understand the technology and begin exploring specific marketing applications for your industry. Like digital platforms, social media, martech, fintech, and numerous other innovations, the spoils of blockchain may go to early adopters who commit to ruthless innovation.

Blockchain's properties – transparency, immutability, and security – make it reliable and trustworthy for an array of applications such as supply chain management, smart contracts, financial reporting, the Internet of Things, the management of private (e.g., medical) information, and, even, electrical grid management. Meanwhile, its transmission model reduces the costs of transactions, enables verification and efficient exchange of ownership, and opens the door to real-time micropayments. It may make it possible for payment frictions to shrink, intermediaries to fade away, and consumers to own and control their personal information.

Here we see the disruptive potential of blockchain on marketing.

2. The Marketing Impact of Near-Zero Transaction Costs

Today, financial transactions have considerable costs. Retailers routinely pay credit card companies 3% payment processing fees, while gas stations pay even more. Vendors using eBay and Shopify pay listing and sales fees, and consumers pay transaction fees on payment portals like PayPal. All of these fees increase the cost of goods and are typically passed on to consumers. With the pervasive use of credit cards and debit cards, many merchants have set minimum purchases for their use to avoid having their profitability destroyed by fees.

Blockchain technology allows for near-zero transaction costs—even on microtransactions. Financial corporations like Mastercard and Visa already offer the ability to send money in any local currency over a blockchain rather than by swiping a credit card, taking advantage of the technology's additional layers of security and transparency. On top of that, being able to cut intermediaries and connect directly the banks of both ends of each transaction can avoid most cross-border fees.

There are implications for marketers and advertisers as well. Today, marketers often try to get access to customer data by paying third-parties (like Facebook) to share information. But blockchain could allow merchants to use micropayments to motivate consumers to share personal information – directly, without going through an intermediary. For example, a grocery store chain with a mobile app can pay users $1 for installing the app in their phones, plus an extra $1 if they allow it to enable location tracking. Every time they open the app and spend at least a minute on it, the retailer can pay them a few cents or loyalty points' worth of store credit, up to a maximum per day. During that time, they push deals and special offers to the user. Indeed, user-tailored deals open a legitimate mechanism to deliver personalized prices that are a function of the consumer's profile. This approach has the potential to reduce fraud and minimize inaccurate or incomplete information from customers that currently plague these programs.

In the same way, marketers can enable "smart contracts" (virtual agreements that remove the need for validation, review, or authentication by intermediaries) that users can activate when they subscribe to email newsletters or sign up for a rewards program. Micropayments are deposited directly to the users' wallets whenever they interact with commercial emails – or with ads, which brings us to our next point.

3. Ending the Google-Facebook Advertising Duopoly

A similar model could be used with website ads by compensating consumers for each page view. In 2016, HubSpot published a research study showing that a majority of Internet users dislike most forms of pop-ups and mobile ads and see online advertisement as intrusive and negatively disruptive. An increasingly common response is to install ad blockers, a trend that is having a major punitive effect on the industry. By 2020, it is estimated that ad-blocking adoption will cost publishers $35 billion.

Blockchain-enabled technology potentially allows marketers to recapture some of that revenue with a different type of model: marketers pay consumers directly for their attention—and cut out the Google-Facebook layer.

We believe that the Google-Facebook duopoly in digital advertising will soon be threatened by blockchain technology. While keyword-based search will not disappear completely, it will become much less prominent. Eventually, individuals could control their own online profiles and social graphs.

With blockchain technology, companies can bypass today's social media powerhouses by directly interacting with consumers and can share the reward of ad exposure directly with them. In 2016, Google is reported to have generated an average of $73 per active user via ads. Of course, the $73 is just an average over nearly one billion active users. It is reasonable to expect that Google brings in much more than $1,000 for certain highly-valued demographics. Imagine the marketing possibilities when companies can efficiently transfer these values to consumers via "willingly-consumed" advertising enabled via blockchain technology.

Blockchain technology can also verify ad delivery and consumer engagement; avoid ad or email overserving, which angers consumers and demotivates them from buying; and prevent follow-me ads that are no longer relevant (such as when consumers have already made a purchase of the company's or competitor's products).

4. Ending Marketing Fraud and Spam

Fraud verification via blockchain will also help verify the origin and methodology of marketers. Micropayments will also effectively destroy the current concept of mass phishing spam that dilutes the effectiveness of marketing for everyone.

In the future, it is likely that both email and the Internet will not be free. Some 135 billion spam emails are sent every day, currently accounting for 48% of all emails sent. Spammers receive only 1 reply for every 12.5 million emails sent. A very small blockchain-enabled payment to the recipient of the email will discourage the spammer by increasing the cost of this activity. It should also help companies identify consumers who are interested in the transaction by their willingness to make this exchange.

Similarly, for the Internet, every time a user clicks on a link, there could be a micropayment. In most cases, the user will make a small micropayment (for example, one cent to read a news article). This would defeat

the denial of service attacks—a type of cyber-attack that involves recruiting bots to hit a website with millions of requests that causes the website to go down or to provide poor response time.

Blockchain will also make it difficult for bots to set up fake social media accounts, flood users with deceptive messages, and steal online advertising dollars from big brands. Online authenticity is literally baked into the blockchain technology. One company that is tackling the problem of social media fraud is Keybase.io, which enables individuals to use blockchain to demonstrate that they are the rightful owners of their various social media accounts. This will make the impact of marketing easier to track and marketing expenditures easier to justify—both are big wins for the profession.

As of 2016, $7.6B (or 56% of total display ad dollars) were lost to fraudulent or deceptive activity, a number that is expected to grow to $10.9B in the next years. By using blockchain technology to track their ads, marketing teams can retain control over all their automation practices, ensure that marketing spend is focused on ROI-generating activities, and directly measure the impact of marketing down to a per-user, per-mail metric. By tying user behavior and micropayments together, blockchain could solve the attribution problem that has bedeviled marketers for decades.

5. Remonetizing Media Consumption

Blockchain-enabled editorial content will likely allow companies to enhance quality control and copyright protection. For instance, (the reinvented) Kodak has created KODAKOne, which will feature a digital ledger documenting who owns the rights to individual images, allowing photographers to assert control over their work. Currently, the theft of online content is a pervasive problem and creators have little recourse to recoup lost monies other than expensive lawsuits. In the future, they will automatically and easily receive payments for content usage.

In addition, the average person who creates viral content, such as much-watched videos or social posts, could receive compensation for every click. (Currently, they receive little or no money unless their work is shown on online channels with subscribers.)

In all of these scenarios, content creators are empowered to produce relevant work that is valued proportionally to its success.

Companies like Coupit are getting ready to maximize the impact of that improved content. Its blockchain-based technology allows marketers to become part of loyalty and affiliate programs for opted-in consumers who can trade rewards with each other. Marketers gain visibility and transparency to differentiate between dormant and loyal customers, thereby expanding their strategies to send targeted offers to each group.

Even when a data aggregator or analytics intermediary is necessary, micropayments will allow companies to bypass ad blocking. Individuals will control the amount of personal information they share, will be directly rewarded for ad exposure, and many privacy concerns will be legitimately appeased.

One example of this is Brave, a new web browser created by Brendan Eich, co-founder of the Mozilla project and creator of the JavaScript language. Besides offering new levels of privacy and security, Brave is enabling a blockchain-based system aimed at transforming the relationship between users, advertisers, and content creators. Basic Attention Tokens (BATs) will allow publishers to monetize value-added services and capture some of the growth related to advertising, 73% of which is dominated by Facebook and Google.

6. Adapt or Risk Becoming Obsolete

As blockchain goes mainstream, all intermediaries will need to adapt their business models. The decision chain will be structurally altered: Individuals will have more control over how they share personal information and how they spend their time interacting with advertisers. Spam and phishing scams will be stopped by their own nature—the more spammers spam, the more unsustainable they become from an economic standpoint. For companies, this could mean higher levels of control over the quality of inbound traffic for all their marketing efforts, as well as a much-needed improved understanding of customers' behavior.

On the other hand, exposure to advertisement will not be imposed without a transactional payment to each affected individual. Consumers will also have an incentive to post an accurate social profile online – detailing what they are interested in – because they will get paid for it. Marketers will be paying consumers directly – not the social media middle layer. When targeting high value customers, the incentives will be accordingly higher.

Blockchain technology holds the potential for societies to become more trustworthy and empowered, increasing visibility, connecting parties, and rewarding individuals for their contributions to transactions. Marketing and advertising are fundamentally impacted by these changes. Finding ways to design and implement measures to make blockchain-related transformations should be a priority not only for CMOs, but also for all strategic, financial, and technological decision makers. Operationally, companies may be able to build new levels of trust with individuals, and ultimately connect their products and services with consumers in a manner and scale impossible to achieve without blockchain.

Marketing and technology leaders have the potential to leverage blockchain to reinvent their customer relationships. Early action on this far-reaching technology will put companies in the best position to benefit from what we think will be widespread adoption.

Short Biographies

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