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Audit transformation and opportunities in cognitive, blockchain, and talent

By Jon Raphael and Amy Steele

Today's audit technology opportunity

The rapid evolution of technology is quickly changing the way business is conducted across all industries, even some that are centuries old. For example, artificial intelligence (AI) can drive down the cost of health care by more accurately determining correct drug dosages for patients and potentially reducing errors. It can also assist doctors with preliminary diagnoses of conditions such as skin cancers and help hospitals reduce wait times.

In the energy industry, analytics are providing better weather forecasting, with dual benefits: enabling companies to deliver more consistent power and potentially saving money. Across industries, analytics and Internet of Things (IoT) devices generate data to forecast machine and equipment failures and allow manufacturers and others to proactively address them. A relatively new innovation starting to make its mark on multiple industries is blockchain, a secure, distributed ledger technology. Initially, blockchain was created for Bitcoin, but its much wider potential is now starting to be applied to supply chains, finance, insurance, and other areas.

What is clear about the potential disruption this new wave of technologies may bring to centuries-old industries is that it is not just a disruption that will force adaptation; it is also a new opportunity for transforming industries so they are more resilient, effective, and valuable. Within audit, the current technology inflection point may represent the biggest opportunity to date: the ability to harness big data to generate insights and drive audit quality. In the past, the amount of data—and the myriad sources from which auditors have traditionally needed to collect, organize, analyze, prepare, and assess this data—has been the critical factor in determining the length and complexity of audits. This has led to the potential for both time-consuming and potentially error-prone processes that do not take full advantage of accounting professionals' abilities to see the bigger picture.
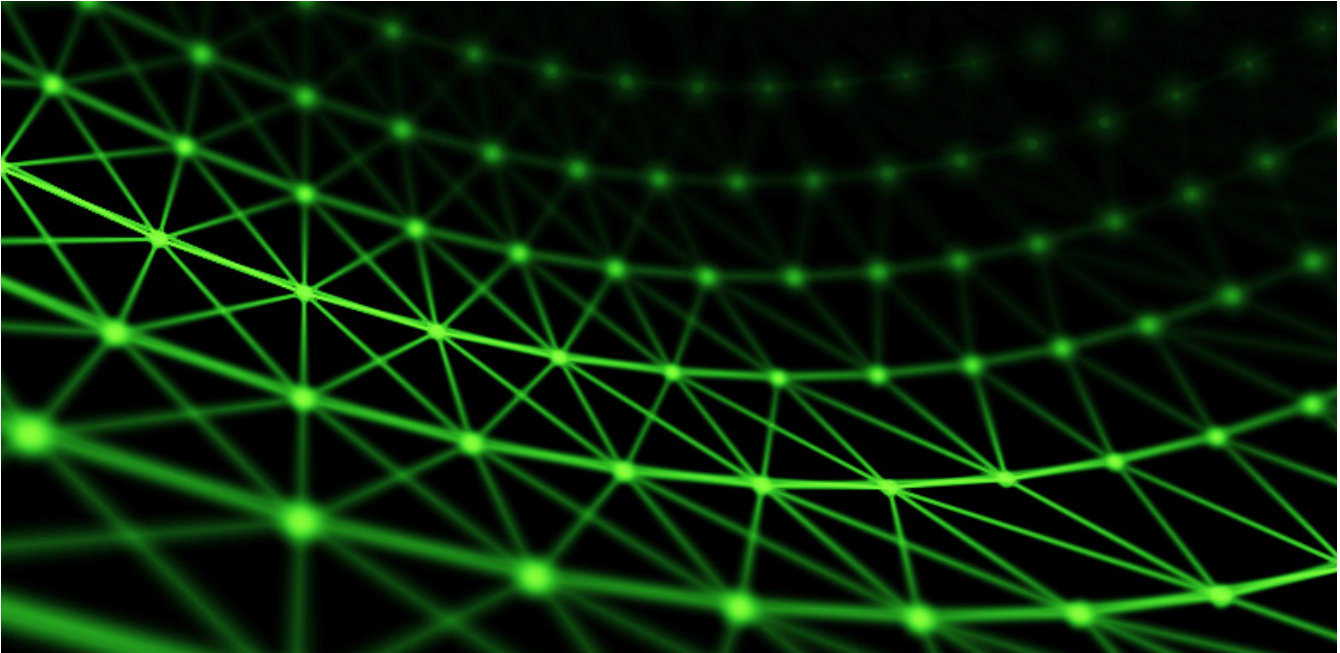
Audit technologies can help reduce the length and complexity of audits. For example, robotic process automation can standardize and speed workflows, while AI and analytics help auditors visualize and understand entire populations of data and point to correlations, anomalies, and outliers, thereby improving risk identification and focusing on what matters most. It is also very likely that, in the next few years, more audits will be augmented by cognitive technologies, which confer many of the same benefits and may portend even greater potential than other technologies for the audit. For example, natural language processing is already being augmented with machine learning so that a system can be "trained" on legal contracts and documents—which historically auditors have had to read through manually—and can efficiently extract and identify differences in key terms relevant to the audit.

The power of blockchain

Blockchain is a technology that promises to change the way business is done. Deloitte's 2019 Global Blockchain Survey found that 53 percent of respondents say blockchain has become a critical priority for their organizations (up 10 points from the prior year), and 83 percent see compelling uses for blockchain. While financial services and fintech once led blockchain development, the technology is being piloted in industries as varied as fashion—where blockchain can reassure socially conscious consumers of a garment's origin and manufacture—to pharmaceuticals, where blockchain can provide visibility and transparency throughout the supply chain, thereby preventing fraud and counterfeiting. The increasing impact of blockchain on industries and on internal controls over financial reporting also means that audit methodologies will need to evolve, since the technology will introduce new risks related to the reliability of the blockchain, automated controls, and related-party transactions.

As a professional services firm that provides attest and nonattest services to clients in multiple industries, Deloitte's approach to addressing the blockchain ecosystem is multifaceted and multidisciplinary and aims at helping companies address questions beyond the audit related to:

Business impacts, such as whether benefits to all parties in a shared database are clearly outlined

Tax considerations, including indirect taxes, income sourcing, reporting requirements, ownership, and substance and jurisdiction planning

Risk and compliance, including the financial, operational, and cyber risks

Audit and accounting readiness recommendations and support specific to blockchain and digital assets

Development and design of internal controls over financial reporting to address unique blockchain and digital asset risk

Governance of blockchain, including consensus mechanisms, participant input and control, and IP ownership and management

Deloitte COINIA and the future of audit

Deloitte COINIA is a proprietary technological advancement developed by Deloitte to assist auditors in efficiently analyzing multiple types of digital assets, retrieving balances at specific block heights and dates, and verifying ownership of addresses in bulk—previously a challenge due to control of the way in which blockchains were designed. With Deloitte COINIA, hundreds of thousands of addresses can be loaded in bulk for a variety of crypto assets, and Deloitte can see 100 percent of the transactions and reconcile them to clients' books and records. Deloitte COINIA also assists with off-chain verification of private key ownership by using an innovative, custom-developed workflow to confirm the integrity of a signed message. The tool is compatible with multiple public blockchains and digital assets, including Bitcoin, Bitcoin Cash, Ethereum, Ethereum Classic, Litecoin, Ripple, Dash, and all ERC20 tokens, with more being added on demand.

The agile design of Deloitte COINIA also means it can be used today not only for crypto assets, but also for a broader base of digital assets, and beyond, as they are supported by the business community in the future. These can include supply chain tracking, digital rights management, real estate title transfer, and other forms of real-world asset digitalization. Deloitte COINIA is an extension of Deloitte's award-winning

Cortex platform, a cloud-based data platform that harnesses the power of data by securely and seamlessly integrating data acquisition with data preparation and analytics. It combines advanced technology with business processes to generate meaningful and valuable insights in a repeatable and consistent fashion.

Importantly, while technologies provide unparalleled benefits in the audit process, they do not stand alone in the transformation of the audit. Without the benefit of skilled audit professionals to provide deep thinking and sound judgments and to make sense of findings—and without an innovative methodology that evolves while being grounded in common standards, regulations, and guidelines—technology by itself loses its context and purpose. When audit technologies are at their most powerful, they work together as part of an effective audit methodology that incorporates the judgment and

experience of auditors, all of which come together to provide very high-quality audits and generate insights that inform larger business risks and opportunities. The promise of this powerful combination is not just a game changer for the audit world, but also a benefit for organizations and a boost to investor confidence overall.

Deloitte celebrates its 175th anniversary in 2020, and audit has undergone multiple sea changes in those years. At each inflection point, it has reestablished its vital role in building trust and confidence in the capital markets and in the investing public. Today, we are racing toward yet another inflection point that holds tremendous promise and potential for the future of audit.

Let's talk

It's clear that technology is changing the way organizations do business across all functions and industries. But there are particular pairings of tool and team that carry game-changing potential. For more information on how Deloitte COINIA helps you make the most of it, contact:

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