

How the Pandemic is Accelerating the Future of Audit

By Naveen Kalia, CPA



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The coronavirus pandemic has forced businesses to operate remotely and embrace digital technologies — whether they were ready to or not. While the audit process was already evolving with the emergence of new technology and growing investor expectations, COVID-19 has significantly accelerated the evolution toward a “virtual” audit.

This isn’t simply a matter of conducting an audit over video chat, or taking a traditional process and moving it online. You can share computer screens, but you still need clear documented evidence; otherwise an audit is not an audit, it’s a conversation.

Instead, it’s about digital transformation, which revamps the auditing process into something entirely new —

a reimagined audit experience. Prior to COVID-19, the winds were already changing. Accountants had already been experimenting with new technologies and working with big data to perform higher quality and more efficient and focused audits. KPMG in Canada became an early adopter, and has been embedding digital innovation into its audits through such things as data and analytics (D&A), advanced technology enabled risk assessment tools and rules-based anomaly detection for more than a decade. More recently, we added in true artificial intelligence (AI) to some of our audits.



But the pandemic has sped up the process of change considerably. Uncertainty, combined with the rapid economic shift to digital ways of operating, has encouraged innovation and thinking outside the box. Suddenly, businesses are reimagining their business operations to engage

clients, suppliers and regulators. With the closing of workplaces and the need for physical distancing, auditors are leveraging existing and new technology to conduct audits remotely, from remote data extraction and analysis to inventory counts using drone technologies. And these new ways of operating need to be done in a way that adheres to established standards and delivers assurance to stakeholders.

Auditing Through the Pandemic

Digital transformation might be a necessity during these unusual times, when physical distancing and remote work have become the norm. But the future of audit isn't just about remote audits; it's about transforming underlying processes using technology to achieve three objectives: a higher quality audit, a more efficient audit and better business insights for our clients through the traditional audit process.

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COVID-19 abruptly forced change, in a matter of days. Federal and provincial securities regulators allowed for some flexibility with deadlines at the start of the pandemic but, for ongoing quarterly and annual reporting, firms needed to accelerate their digital practices.

The standards haven't changed, yet the pandemic has resulted in new risks. There have been significant changes to internal controls as a result of remote work arrangements, according to the Canadian Public Accountability Board (CPAB). This makes business more vulnerable to fraud and cybersecurity attacks, often while facing resource constraints and staff reductions — making it even more difficult to design effective controls.

Prior to the pandemic, many larger firms were well underway in the process of digitizing their documents; smaller firms were just getting started or only part way through. But the pandemic forced everyone to move to a new way of conducting audits. And cloud-based data-extraction systems were immediately put to the test.

Extracting and downloading all of our clients' financial reporting data (including supporting documentation) allowed auditors to look at an audit differently. In the past, if an auditor was using a statistical sample approach on a batch of invoices, there was typically an assumed error rate. The remote access to all our clients' data has, however, allowed us to apply new enhanced D&A routines that have the ability to test every single transaction, so that any error is a hard error. If the numbers don't add up, there's an issue.

The pandemic forced change out of necessity; there was no time for debate. The traditional barriers for auditor access to data — client resistance and client readiness were quickly overcome and the audit technology was put to the test. And it worked. It's shown us the way of the future: clients can see real-time insights as the industry moves toward the goal of

continuous auditing. The pandemic has brought us closer to that goal and is expediting the investment in technology to help us get there.

On-site visits will resume in the future, but many of these changes will be permanent. The experience has given the markets and regulators confidence that audit quality has accelerated. This has shown us the way of the future — it is possible and it's better. But it has also highlighted what else is required; the past few months are just the start of the journey.



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Three Ways Technology Is Transforming Audits

Auditing has traditionally been a process based on statistical sampling techniques. For example, if you were auditing 1,000 invoices, you might run a statistical sample giving you 40 items you might test. But we can now use advanced D&A, rules-based automation and artificial intelligence to move from statistical sampling to actually reviewing 100% of a client's

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transactions in real time. Whether that is looking at all 1,000 invoices at a small manufacturing company or all

140,000 derivative and securities portfolios at large financial institutions, the outcome is clear: we have a much higher quality audit through the use of technology.

Allowing the machine technology to perform routine, rule-based tasks also results in a much more efficient audit, and allows the auditing professionals to get razor-focused on outliers and anomalies.

Over the past two years, KPMG has also been working on risk assessment tools that layer machine-based learning — which is a subset of artificial intelligence — on top of rules-based algorithms. Once the system ingests massive data sets, it can flag additional anomalies or risky transactions based on parameters that it “learns” on its own. This technology can also provide insights into a company’s processes, possibly in real time, and flag outliers that might not be caught otherwise.

That’s the power of AI — it picks up patterns that people may miss or haven’t seen before.

The future of audit will involve real-time auditing, in which clients record transactions on a blockchain and the auditor is alerted if there are any unusual interactions — for on-the-spot auditing.



Overcoming Resistance and Lack of Readiness

While the future of audit shows promise, there are still challenges ahead. The tools are only as good as the quality of the data. Clean data in the right format is essential to apply D&A, rules-based algorithms and AI.

During this pandemic, clients who were further along in their digital transformation greatly benefited from having good, clean, formatted data resulting in little to no disruption in their audits. For example, using cloud-based remote data-extraction capabilities and data-sharing platforms, clients have been able to securely share data in a digital format. This has helped

them transition to the world of virtual work and provided greater resilience during a time of uncertainty and upheaval.

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Many of Canada's businesses, however, especially in the small business and mid-market space, were at the beginning or only partway through their digital journey when COVID-19 came along. This unprecedented event has been an eye-opener for those clients, underscoring the urgent need to accelerate their digital capabilities. If they had been wrestling with the need and cost of digital transformation at the start of the year, the pandemic lockdowns and shelter-in-place orders clearly demonstrated the need for investment, driving many into action.

Businesses that hadn't already digitized their source documents had to get it done — and done quickly — to accommodate remote working and the eventual remote audits.

Very rapidly, businesses embraced data extraction, analytics and AI tools to make the auditing process work virtually. This acceleration toward automation has turned out to be a silver lining as organizations became more resilient and better positioned to address the new business reality.

Cloud, AI and Machine Learning

As businesses transform the way they collect and process data, the accounting industry must remain a step ahead. That means continuing to invest in cognitive, machine learning and artificial intelligence capabilities to provide organizations with data-driven business insights as well as evolving reporting and regulatory requirements. This could require the use of both off-the-shelf and custom technologies. KPMG in Canada has teamed with tech giants and start-ups on our digital auditing solutions, picking the best of what's out there and creating a bespoke technology driven audit.

In 2017, KPMG, with the launch of its smart audit platform [KPMG Clara](#), became the first of the Big Four to take its audit workflow to the cloud. Based on technology from Microsoft, KPMG Clara houses advanced, predictive analytics within a single, cloud-based source and seamlessly adopts the latest cognitive and AI solutions.

At the same time, KPMG in Canada is working with other leading companies including MindBridge Ai, an Ottawa-based company, which uses AI to review and analyze 100% of a client's transactions.

Clients have access to KPMG Clara throughout their audit, providing a 24/7 window into the status of an audit. As more businesses shift to virtual work, KPMG Clara's integration with

Microsoft Teams will provide a platform for audit professionals to centrally manage and securely share audit files, track audit-related activities and communicate using chat, voice and video meetings. This is resulting in more targeted and meaningful conversations about specific findings, risks and insights, particularly in relation to risks and anomalies.

While investments in technology are critical, there is no one-size-fits-all solution. Recognizing that every client's system is a bit different, KPMG has taken a different approach: upskilling auditors to harness these technologies and home in on solutions that are bespoke for each client.



Narrowing the Skills Gap

The reality is that these new technologies and expectations are evolving rapidly, requiring auditors to constantly upgrade their skills and approach. KPMG is upskilling auditors to meet these demands through a program called [Digital University](#). The emergence of cutting-edge tools and innovation transforming audit has accountants thirsty for the knowledge to keep pace and thrive in the future of audit.

KPMG created the Digital University two years ago to get ahead of this emerging skills gap, working with Simon Fraser University's Beedie School of Business. Digital University, which is the only one of its kind in Canada, is a graduate program to prepare auditors for an era of machine learning and artificial intelligence. Participants are either certified public accountants (CPAs) or candidates who are in the process of applying for the CPA designation.

As part of the program, participants learn cognitive analytics, leveraging data to unlock hidden insights, identify patterns and predict outcomes. The auditor of the future will have different

skill sets than in the past, driving the ability to enhance the quality of audits and even transform the way data is used.

Participants earn a graduate certificate in accounting with digital analytics and can go on to obtain a master of science in accounting with cognitive analytics.

While technology will play a greater role in audits, it isn't meant to replace auditors. In fact, the ability of technology to quickly and effectively process reams of data will enable auditors to utilize their new data analytics skills to drive critical insights and strategic business recommendations.

Digital University also involves working on real-world problems that help solve client issues. For example, one client was spending 40 to 60 hours every quarter reconciling forms that translated revenues into Canadian dollars. Using a skill acquired through the program, a student was able to code a custom-made solution for the client so that same process now takes about 30 minutes — at the push of a button.

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Technology Driving Change Across the Entire Financial Reporting Ecosystem

With increased use of technology, the entire financial reporting ecosystem needs to mature, to catch up with what we're able to do and with what investors are expecting.

While there is clear value in the current audit report, the world is changing rapidly and, within that context, there is growing interest in the role audit will play as a fundamental part of the wider financial reporting ecosystem. Investors and society at large are looking for a new model of the corporate audit, one that drives greater transparency and expands beyond financial statements to provide assurance on non-GAAP (generally accepted accounting principles), non-financial information, including key performance indicators (KPIs), environmental, social and corporate governance (ESG) and cybersecurity.

Momentum is building for a common, core set of social and environmental metrics and recommended disclosures. For example, institutional investors are increasingly expecting companies to follow best practices and industry-specific guidelines set out by such organizations as the Sustainability Accounting Standards Board (SASB) and report under the Financial Stability Board's Task Force on Climate-related Financial Disclosures (TCFD) recommendations.

Pressures are emerging for securities and financial regulators to require mandatory adoption of these initially voluntary disclosure frameworks. To do this effectively, the entire financial reporting ecosystem needs to mature: auditors need upskilling; companies need to embrace

live connections to data; and regulators need to strengthen and evolve standards to match new technological capabilities such as AI.

Looking Ahead

Machines, no matter how well they're programmed, can't replace people. It's relationships, and the trust built with clients, that helped to accelerate this digital transition during the pandemic.

Clients have accelerated their digital capabilities and increased the speed of the transition from paper-based record-keeping to cloud-based enterprise resource planning (ERP) platforms and collaboration tools. In fact, KPMG's recent [Global CEO Outlook](#) found that 84% of Canadian CEOs are now prioritizing their technology investments to meet growth and transformation objectives, and the vast majority (92%) say COVID-19 has accelerated the digitization of their operations.

The core of any digital solution, however, must include fundamental principles related to security and privacy to enable the use of all these capabilities, and this needs to continue to be a key focus for Canadian businesses — now more than ever.

Technology will broaden the audit function to garner more insight into data, allowing auditors to play a more active role. For example, they could actively identify fraud in real time, rather than via a point-in-time audit using year-old data. But it does require a new set of skills, in an industry facing skills shortages. It also requires buy-in from leadership, especially when sharing data.

COVID-19 has paved a clear path for the real-time, virtual audit. The industry went from theoretical to tried, tested and true in a short period of time, accelerated by pressure from a global pandemic. On-site visits will resume as the pandemic comes under control. But the evolution of audit processes will be here to stay.

After embracing digitization and artificial intelligence for high-quality, highly efficient audits, there's no going back. The future of audit is within reach and closer than ever.