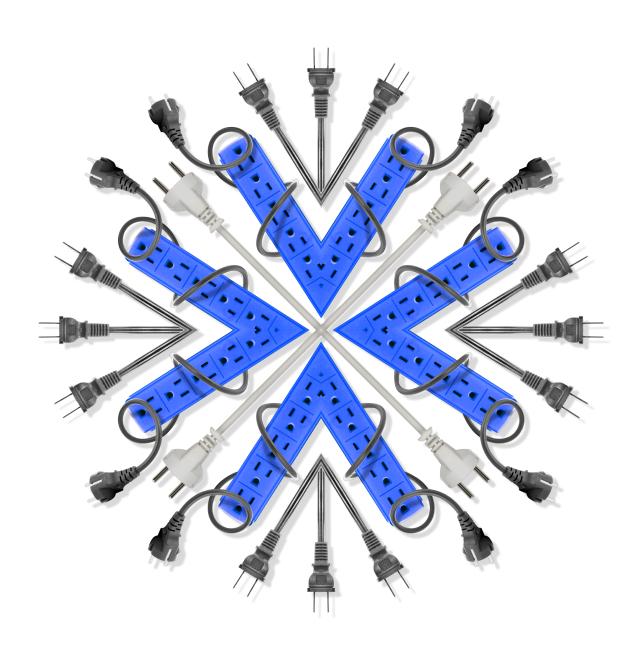# Deloitte.

The untapped power
of "Digital IA"

In April 2017, Deloitte's Global Internal Audit (IA) practice developed and hosted the IA Analytics & Automation Innovation Roundtable. Held in the Deloitte Greenhouse™ space at 30 Rockefeller Plaza, New York City, the event engaged internal audit analytics executives from nine global banks. Participants shared insights and perspectives on the most challenging issues facing

their organizations and the internal audit profession, and discussed how emerging technologies, new thinking, and innovation can help to address these issues. This report represents a distillation of some of the discussion topics. To speak with a Deloitte IA partner on any of these topics, or to participate in the next roundtable event, see the contact information at the end of this paper.

The pithy promise of analytics and automation in internal audit—"faster, cheaper, better"— has been convincingly validated. Examples abound of these technologies—which we refer to collectively as "Digital IA®"—as companies use them to uncover anomalies, identify opportunities, realize savings, and detect fraud. (See sidebars.)

Yet despite numerous success stories, overall adoption has been uneven. Certain industries, notably financial services, have embraced Digital IA; however many others have yet to embark on the journey.

What's holding them back?

$40 million in travel savings

Adopting an analytical approach to travel expenditures, we helped our client ask "what if?" questions and then looked for related patterns within the data. Our analysis revealed that employee-scheduled layovers often diverged from a direct route to the final destination and frequently extended beyond 12 hours. By changing travel policies to address this issue (among others identified), the client was able to realize $40 million in savings out of a $400 million travel budget.

Benefits to function and org alike

Over the last several years, Digital IA capabilities have risen significantly. For example, tools such as robotic process automation (RPA) allow labor-intensive, error-prone processes that formerly took days to now be accurately completed in a matter of minutes.

Meanwhile, an increase in sheer computational power has been matched by the streamlining of user interfaces and the refinement of visualization tools, putting power that used to reside only with the elite "geek" set into the hands of average users.

Thus, through automation, internal audit groups can increase efficiency, decrease errors, and free up resources for value-added work. And through analytics, IA can not only better perform its traditional duties, but can broaden its mandate and sphere of influence to provide actionable insights to management through the anticipation of both risks and opportunities.

This ability to peer into the future, formerly the exclusive realm of mystics and sorcerers, has raised the esteem of internal audit, earned chief audit executives the ear of top brass and a proverbial seat at the table, and has, not incidentally, improved the fortunes of their organizations at large.

Curtailment of "rogue" IT spending

Pulling in external data to augment internal information, we helped an organization identify significant savings in its IT technology spend. A visualization application provided a powerful graphical representation of the data that proved the current IT purchasing process was not working as intended. As part of the engagement, we provided the client with a prototype internal control analytic tool.

Variability the norm

But apparently not everyone is as welcoming as grandma. Even within financial services, generally regarded as the most advanced industry in terms of Digital IA adoption, penetration and utilization varies widely.

According to our informal, nonscientific survey of roundtable attendees:

- Budget dedicated to Digital IA technologies ranges from 1% to 10%
- personnel devoted to analytics and automation covers a wide spectrum, from 4 to 70 employees
- Fifty percent of audits are supported by analytics, with a smaller percentage involving visualization.
- Data access lead time for an analytics-enabled audit ranges from less than one day to three-plus weeks.

While the upper ranges are impressive, the variability of these numbers suggest some difficulty in gaining traction for internal audit analytics. Yet outside of the financial services sector, these figures are viewed with a degree of envy by audit executives. In Deloitte's experience, IA analytics groups in other industries generally get by with smaller budgets, fewer personnel, and less coverage and support.

Hungry for more

Once they've tasted the fruits of the analytics cornucopia, most internal audit shops are hungry for more. We asked the financial services attendees at our forum to describe their three-year ambitions for Digital IA. Respondents said they hoped to:

- embed analytics into every audit
- implement continuous audit practices at all locations across the globe
- centralize internal audit analytics
- implement advanced analytics and automation tools
- adopt risk monitoring tools that scope out large portions of traditional audit work
- expand the data analytics skillset so that more auditors are empowered to access and analyze data
- explore the use of robotics and cognitive technologies

Mindset, skillset, toolset

For internal audit organizations that intend to exploit the power of Digital IA, three factors will influence the ease of adoption and the quality of outcome: mindset, skillset, and toolset.

Uncovering procurement fraud
Looking for anomalies in normal buying behaviors, we helped a client identify several patterns that were unusual, such as sudden spikes in cost-price with a simultaneous drop in volume, and a one-time larger-than-normal increase followed by a long-term plateau in price. These discoveries led to the uncovering of a sophisticated kick-back scheme.

Mindset: There's no criticism, stated or implied, in the observation that auditors are typically conservative, traditional, and resistant to change. These traits have served the professional well for a century or more. However, 21st century auditing requires a new way of thinking that values innovation, fosters creativity, and embraces technology. Those who fail to keep up with the rapid changes in the profession will quickly be marginalized.

Skillset: A broader base of skills is needed within the modern internal audit shop. Traditional CPA backgrounds will still be valued, but these talents must be augmented with nontraditional abilities and perspectives, such as those found in mathematicians and systems engineers. Auditors of the future will spend more time working in four key areas: exception routines, supervision and control, unstructured processing, and root cause analysis.

Toolset: Digital IA technologies are continually growing in power and number. Internal audit organizations that have adopted the mindset and acquired the skillset to exploit Digital IA can choose from the following menu of enabling technologies:

- **Data management:** Integrating data to develop new data models (e.g., operational and human resources data sets)
- **Predictive analytics:** Software solutions using predictive models (e.g., compliance risk models)
- **Data visualization:** Software placing data in a visual context (e.g., governance, risk, and compliance dashboards)
- **Robotics process automation (RPA):** Rules-based systems that mimic human behavior to automate parts of repeatable processes (e.g., control checks, regulatory reporting)

- **Natural language generation (NLG):** Applications that accept structured data inputs (Excel-like rows/columns), to generate seemingly unstructured narratives (e.g., flash and sales reports, compliance reporting, AML SAR reports)
- **Natural language processing (NLP):** Applications that process unstructured data (e.g., text) and allow querying and generation of structured data (e.g., regulatory change/P&P documentation review)
- **Machine learning (ML):** Applications that are able to improve predictability and operation based on data they receive over time. (e.g., fraud analysis applications)
- **Augmented intelligence (AI):** Applications able to mimic human behavior, such as visual perception, speech recognition, decision-making, and translation between languages (e.g., cognitive agents in risk adjudication)

Taking the guesswork out of data loss protection
Examining uncommon data sources and rethinking algorithms, we helped a client significantly improve their data loss protection algorithms. Our analysis improved the organization's ability to identify individuals responsible for data loss from less than 50% accuracy (in other words, a random guess would have been more effective) to over 98% accuracy.

Overcoming adoption challenges

The benefits of Digital IA are unambiguous; users quickly become believers; and the promise of "faster, cheaper, better" becomes a reality. With this compelling rationale, all that's required are a few strategies to accelerate the adoption of Digital IA. Here are some suggestions:

Honor the past but build for the future: Bring in unconventional skillsets to augment your traditional audit backgrounds. Diversify your talent mix to add creativity, innovation, and technological savvy.

Train maniacally: Today's cutting-edge tool is tomorrow's outdated technology. Change is relentless; progress is rapid. Internal audit professionals need a structured and well-funded program of ongoing professional development to keep up.

Talk it up: Tell the Digital IA story at team meetings, training sessions, in elevator conversations, and during coffee breaks.

Engage colleagues: For the potential benefits to multiply, everyone in internal audit should think of themselves as part of the Digital IA team, regardless of their area of specialization. Seek out opportunities across the organization by leveraging and being part of the broader enterprise-wide efforts around analytics and automation.

Recruit an executive sponsor: An ally and proponent in an influential position can be invaluable in breaking down barriers and converting naysayers.

Integrate into the audit process: Work with professional practices staff to properly integrate Digital IA into the audit process. Consider lead times, process, and systems coverage and knowledge.

Deliver impactful results: Providing value and insight is the objective. If you deliver on the promise, you'll win converts and supporters.

Celebrate success: Tell the Digital IA story in internal newsletters, during "lunch-and-learn" events, and at all-hands meetings. Get the Audit teams to promote innovative uses both within and outside of internal audit. Nothing is more powerful than the influence of peers.

Take small steps: A thorough and complete transformation to a Digital IA operating model can't be attained overnight. Instead, work methodically over time to introduce new tools and methods, including automation, analytics, cognitive computing, and machine learning.

Rising stock
Digital IA provides neither a panacea nor instant gratification. Fully realizing the benefits will require dedication and resources. You'll need to cultivate the proper mindset, skillset, and toolset within your internal audit organization.

To do so, simultaneously look to the future and the past, both in terms of the makeup of your team and the focus of your audits. Add the predictive to the detective. Mix and match behavioral and transactional data.

Deliver value and drive positive change across the organization. The rising stock of both your internal audit group and your organization at large will be the outcome.

For more information
To learn more about harnessing the power of internal audit analytics for your organization, contact any of the Deloitte partners shown below.

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