Let us consider the case of an automated software robot conducting financial transactions on behalf of a company. The robot makes a mistake, causing financial loss for the firm’s client. Who is responsible in this case? Is it the company that owns the process, the third-party consultant that designed the robotic process or the software vendor that developed the robot?

An automated underwriting process using artificial intelligence (AI) unfairly discriminates against a specific socially economic group because of a flaw or bias in the underlying AI algorithm. Does the company that used the algorithm even understand how it really works?

There are ethical, reputational and legal issues emerging from the new age of automation happening today. Law firms, accounting firms and other professional services consultants need to increase their level of knowledge and expertise in these areas to keep pace with the changes.

Much of the history of technology-centric litigation focused on issues of breach of contract, failure to deliver, cost-overruns, billing disputes and more recently cybersecurity and data privacy. High profile data breaches have become a common occurrence. Class action litigation followed by settlements and prepaid data monitoring services are the norm.

We are now entering a new phase in the technology evolution with the rapid emergence of artificial intelligence. The market for AI software and related technologies is expected to reach $90 billion by 2025. To understand some of the emerging trends a short primer on the AI space is in order. Here is a
breakdown of three interrelated technologies that are in various stages of development, adoption or even maturation within the business market:

Artificial Intelligence

Using high volumes of data and a complex set of algorithms, this form of automation drastically enhances the ability to perform research and predictive analytics, providing human-like decision making and develop adaptive responses. In the legal context, software that can analyze years’ worth of case law in seconds to find relevant material can save hundreds of hours over research using more traditional search methods. AI models built to match case scenarios against past results, including judicial history, can provide attorneys with additional data points when contemplating whether to settle or proceed to trial.

Both Google and Facebook use highly sophisticated “algorithms” to deliver custom search results and target advertising based on your user-preferences and past search history. These proprietary models literally dominate the markets in their respective space giving these firms enormous power over everything from e-commerce to political discourse.

Machine Learning

Based on repetitive ingestion of data, a machine-learning model will ingest data and deliver increasingly accurate results by “learning” from previous instances of data. As a subset of artificial intelligence, a data analyst will adjust the model and allow or disallow new input that will affect the subsequent result. Recent advances in document extraction and classification tools based on machine-learning allow forensic accountants to ingest thousands of similar documents and quickly extract key data and move on to the more critical role of analyzing that data for trends and patterns to support the case. Software designed to manage contracts can quickly abstract key terms and conditions.

Robotic Process Automation

Best described as a “digital worker,” a robot or bot can perform process-based activities in the same way a human worker could by performing keyboard and mouse interactions with any computer system, application or website. With productivity 10 to 15 times faster than a human worker and the ability to work 24x7x365, bots are an effective and efficient way to quickly scale up a temporary workforce to deal with a data intensive case. Since most robotic processes can be built in less than two weeks, it may even be cost effective to build an automated process for a single case. After the case is completed, components of the bot may be reused in a subsequent case.

The robotic automation industry is still in its infancy, but growing rapidly and will soon be a multi-billion dollar industry worldwide. Bots come in many forms including “assisted” robots that perform tasks for a call center or support agent as needed and “unassisted” robots that perform scheduled or triggered tasks based on a certain condition. These bots work unseen in the background. Chat-bots are another form of interactive automation. Users interact with these chat-bots to perform Q&As on a variety of
service-related topics. Google is now testing a version of its popular Alexa product using artificial intelligence. Upon command, the digital assistant can place a phone call to book a restaurant reservation or other appointments using an interactive, human-sounding voice.

Where Are We Headed?

Fast forward five years into the future when the penetration of these digital workers takes a measurable hold in our back office environments. Who takes ownership for the actions (or inactions) of these new digital workers? Consider the consequences of run-away transactions, e-commerce purchases made without formal authorization, or simply process-design flaws in the programming of these robots. As the algorithms and AI-assisted models become more and more complex, organizations will need to carefully assess their risk profile and more importantly they need to enhance their internal capabilities and competence to operate these powerful tools and technologies.

Whether you provide Legal Counsel, Assurance, Tax or Advisory services for your clients it is becoming increasingly important to keep pace with the technology advances and the inherent benefits and risks. Clients need an effective Corporate Governance and Information Technology structure, strong internal controls and an ongoing employee education program related to the use of new and emerging technology. In reality, many of your clients have only just begun to mature in their understanding of cyber-security risks which have been widely documented and pervasive for years now.

Both the Accounting and Legal profession bring a unique perspective to our clients. We bring a heritage of prudent decision making, wise legal counsel and accounting and audit principles to our approach. In many cases, we have access to the latest thought leadership, training and resources to gain critical experience in these areas. Despite the rapidly changing technology landscape, it is possible for the Professional Services Industry to remain a key leader in the adoption of advanced technologies, promote use and adoption while at the same time helping our clients navigate the many challenges ahead.

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