



INSIGHTS FROM THE BDO TECHNOLOGY PRACTICE

TOP TECH BALANCING ACT IN 2020: INNOVATION VS. RISK

The technology industry is proving out its resilience. As every industry responds to change and disruption, tech companies are being relied upon more than ever to accommodate remote work, food and supply access, health services, communication, connectivity and entertainment.

Innovation remains imperative. While it's difficult to predict the near-term market and economic landscape, it's clear that consumers and businesses will need new methods, ideas and approaches.

But breaking barriers can be risky—and costly. In the face of significant market volatility and global pressure, tech companies must flex their agility and continue their path to growth with a clear line of sight to their stakeholders.

Can tech leaders keep pace with the accelerated rate of change while effectively navigating an evolving threat landscape? To scale effectively long-term, tech leaders will need to consider the balance between innovation and risk holistically and with intent.

Here are a few hotbeds of innovative opportunity and some of the risks these pursuits may encounter.



Big Data

INNOVATION

As more business goes digital, the volume of data being gathered is growing constantly. From a company's on-premise systems to personal telecom and IoT devices and remote business-enablement software, the use of digital tools—and the data those tools aggregate—are growing every day. Companies that harness the power of that information by effectively managing their data can apply advanced analytics to draw meaningful insights and be better positioned to compete.

From a products and services standpoint, data management solutions are the critical half-step to successful storage, ethics, compliance and analysis. Data management and privacy-as-a-service can help companies maintain trust among users and regulators, while extracting value from their data.

RISK

Regardless of 2020 election results, data privacy regulations are on the agenda—in part pushed for by tech companies themselves. In fact, 50% of Tech CFOs surveyed in our [2020 Technology CFO Outlook Survey](#) believe the industry needs to be more regulated.

Since the Facebook-Cambridge Analytics scandal arose, significant concerns have surfaced about the use of personal data for any number of purposes, from brand marketing and advertising, to political targeting, to intel for law enforcement.

The newly effective California Consumer Privacy Act (CCPA), along with Europe's General Data Protection Regulation (GDPR), provides individuals ownership over their data, adding to the data governance and management obligations for tech companies.

Proposed track and trace methods to combat the spread of the coronavirus may be the new frontier in privacy issues. In any scenario, meeting and surpassing the demands of the various jurisdictions regulating data privacy will be essential for tech companies to rebuild and maintain consumer trust. After all, for most software companies, a fall in consumer trust in your products compared to those of your competitors can significantly impact revenue and market share in both the short and long term.

Outside of regulatory and trust considerations, prior to the pandemic, 29% of tech CFOs surveyed said a privacy breach was the top threat to their business. Targeting the critical data generated and stored by tech companies, cyber hacks will continue to plague the sector with increasing sophistication, potentially leading to greater losses and eroded trust—unless companies effectively mitigate the risk with ethical data management and security training.



Artificial Intelligence (AI)

INNOVATION

AI works to make sense of the vast amounts of data tech companies are generating. With the power to simplify the knowledge discovery process by aggregating and linking disparate data sources and analyzing it in real-time, AI can be a sharp competitive edge for the industry.

Simultaneously, AI is blurring industry lines, expanding the opportunities for tech innovation and partnerships. In healthcare, for instance, AI-based solutions turn medical tools into health monitoring devices and enable smartphones to work as diagnostic kits and radiology image readers.

AI is also increasingly being used to augment recruitment processes to address workforce concerns. From chatbots to interview scheduling and skill-matching, tech companies can look to AI for talent acquisition support.

RISK

There are unprecedented challenges spurred by AI, facial recognition and other emerging tech.

As a result of bad data or implicit bias on the part of software developers, human error can become concentrated once introduced into AI. These risks are heightened as tech companies face backlash for lack of diversity in their ranks, in addition to biased solutions. Algorithmic bias can cause severe damage to business operations and reputation.

Fear of machines replacing human-staffed positions also bears an existential concern. AI, unlike robotic process automation (RPA), is programmed not to be rules-based, but to refine its algorithm as it collects more and more data, essentially teaching itself and growing smarter over time.

Simultaneously, governance concerns resound. From weaponizing AI to hack systems, influencing political campaigns through deepfake videos or inadvertently revealing anonymized data through sorting and linking processes, industry leaders will need to demonstrate their strong ethics and realize they may be accountable for all potential uses of their tech.



Robotic Process Automation (RPA)

INNOVATION

Many CFOs report that managing an increasing volume of work and higher expectations is among their top personal challenges. RPA, a software-based solution, offers applications to handle repetitive and manual tasks. RPA can take over assignments including file management, form fulfillment, database entries, web scraping, calculations and statistics, among other rules-based programs.

By leveraging RPA, tech companies are positioned to redirect the focus of employees to more strategic work, further driving the business' ability to innovate. RPA can also enable greater workforce value and talent retention by eliminating time-consuming, administrative work that professionals find burdensome or inefficient.

RISK

As increasing volumes of work and ballooning expectations lead to the adoption of RPA solutions, data security and privacy risks may be inadvertently introduced. Improper data use and automated access could lead to unintentional errors and liabilities, meaning RPA system adoption may require additional security controls.

Other risks of adopting RPA include: using incorrect source models when setting up the software, failing to meet data compliance obligations, pursuing unrealistic expectations, poor customer experience, applying improper shortcut settings, inadequate change management strategy and the failure to communicate blurring roles, duplicated efforts and a lack of integration.



INNOVATION

Building the infrastructure and network of the fifth generation of mobile wireless communications—known as 5G—is the launching point for levelling up data transfer speeds and device connectivity. This means faster downloads and more mobile business operations with greater access to data-dense applications.

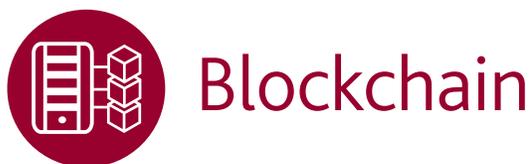
5G lays the groundwork for greater telecommunications coverage, which could power autonomous, driverless cars of the future, improve public transportation, provide essential healthcare technology and more, creating opportunities for tech-intersecting industries.

RISK

Continued geopolitical tensions, tightening borders, stringent intellectual property protections and trade limitations are top issues for the tech industry, especially as they relate to national security and innovation.

As China forges ahead with superior 5G telecommunications networks, American tech dominance comes under siege. The U.S. must catch up quickly without compromising the security of its networks.

5G infrastructure, which is set to "[serve as the backbone](#) for trillions of dollars' worth of economic and industrial activity," is facing restrictions in the U.S. due to security concerns around identified vulnerabilities that may serve as potential entry points for hackers.



INNOVATION

Digital ledger technology (DLT) promises greater data traceability, enhanced security and faster transaction times, which may be appealing to many tech companies and their clients, particularly with fewer transactions taking place face to face.

Fintech and banking start-ups are using blockchain to develop crypto-currencies and crypto applications, consequently eliminating the need for centralized financial intermediaries and offering customers access to decentralized digital assets.

At the same time, the entertainment sector is addressing creative ownership by tracking intellectual property rights through "chain-of-title" records, as well as smart contracts. Smart contracts—a means of streamlining and tracking payment records—also [benefits digital advertisers](#), who can use the tech to fight fraud.

RISK

Blockchain and DLT's untapped potential also illuminates this technology's dark side: scalability, regulatory gray area due to an absence of standards, energy consumption costs, questionable network resilience and block integrity and data privacy considerations.

"Blockchain privacy poisoning" may be an especially significant threat to the integrity of this technology. Privacy poisoning refers to the insertion of personal data—an instance of an individual's name along with any one of 29 additional confidential items—in the chain. Since a blockchain establishes a series of immutable records, meeting data privacy regulations may be particularly challenging.

There is a great deal of opportunity to unlock in blockchain technology, though there are still many variables left to be defined.

The longest bull market run in U.S. history has reached its finish line. As we enter the next cycle of the market and brace for continued uncertainty around the full and long-term impacts of COVID-19, tech companies need to be especially aware of their evolving risk environment. Innovation is essential, perhaps even more so in a challenged market, but tech companies will need to ensure a risk-based approach and responsible pursuit with any investment.

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