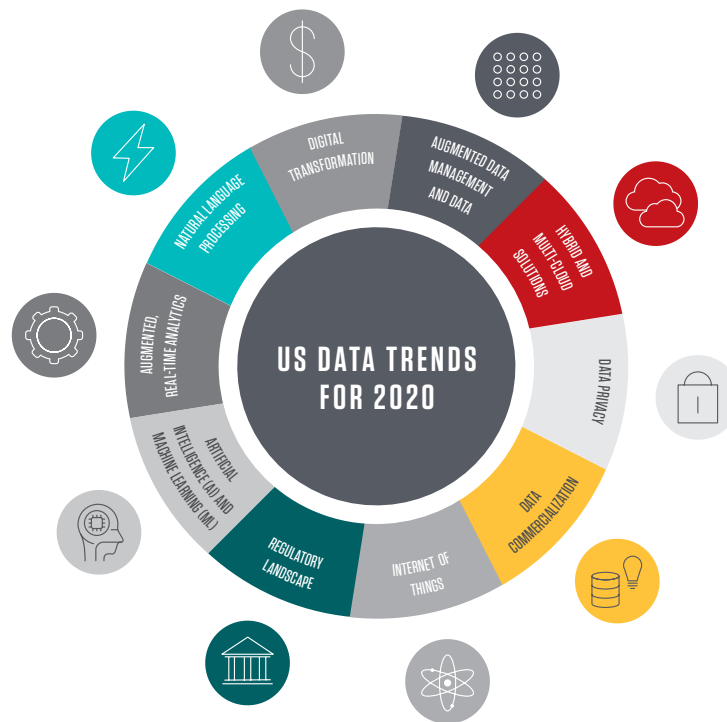


# DATA DIFFERENTIATORS FOR 2020: A US TAKE



## Introduction

As predicted, the data landscape continued to be volatile as 2019 came to a close. Data volumes in 2019 continued their meteoric growth, which in turn increased the demand for data management and data science/analytics jobs around the United States. The technology giants (Amazon, Apple, Facebook, Google, Microsoft) led the charge in the mergers and acquisitions space within artificial intelligence (AI), and we saw the completion of the [SalesForce/Tableau](#) acquisition and the [Cloudera/Hortonworks](#) merger. The Internet of Things (IoT) will play a more significant role in years to come as its growth, and IoT technology growth will dictate the amount of data that moves around the globe.

Data privacy gained added impetus with several states, including California, Massachusetts, and New York, promulgating data privacy laws. Dialogue also continues at the federal level for national data privacy laws. In Europe, we see organizations grappling with the General Data Protection Regulation (GDPR) - almost half a billion euros in fines have been issued, thereby reinforcing the need for robust information lifecycle management. In another corner of the world, Thailand adopted a Personal Data Protection Act, in which companies must become compliant by May 2020.

We are delighted to see firms continue to invest in areas such as data engineering, modernizing the data supply chain, analytics (artificial intelligence (AI), machine learning (ML), and knowledge graphs) to build robust and efficient operations that continue driving value for their business. We expect this to reduce the administrative burden across multiple facets of an organization and drive greater value through improved data management. Financial institutions continue their pursuit of defining identity as a singularity and are leveraging master data technologies and knowledge graphs to support this endeavor. This single view of identity will enable new data commercialization opportunities, which need to be controlled and managed through a well-defined framework. Furthermore, it will open new business models in domains adjacent to banking and capital markets, specifically in wealth and asset management and insurance – and firms that cultivate these new opportunities will reap the rewards.

Businesses must prioritize data to extract maximum value to thrive in today's world. Those who ignore data as a differentiator and ignore the call to influence their business strategy will be at risk of collapse. Building this culture remains the critical challenge for data leaders within financial institutions and underpins our ten trends as we usher in the newest chapter of the roaring twenties.

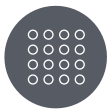
# CAPCO'S US DATA TRENDS FOR 2020

---



## 1 DIGITAL TRANSFORMATION AND DATA

With the provisioning of digital platforms over the last decade, digital transformation will continue to sweep into the financial service industry. Digital transformation will hold strong into 2020 as companies plan to monetize their data and lure in new customer bases. The customer is king here, as businesses will need to utilize data to improve the customer journey, launch new products and services, and streamline their activities. Digital transformations and data platforms will become even more interlinked as companies try to gain a competitive advantage.



## 2 AUGMENTED DATA MANAGEMENT

With the exponential growth of data, data management is important now more than ever. The rise of AI and ML curates a blended solution as augmented data management strives to automate the manual duties of managing data. This will allow employees to focus on higher value-add tasks as AI and ML continue to grip different facets of the data world to drive productivity. Standard data management practices such as data quality, master data management, and data integration will be affected over the next several years as projections forecast a decline in manual duties.



## 3 HYBRID AND MULTI-CLOUD SOLUTIONS

Hybrid cloud deployments are becoming the trend due to the complicated and time-consuming process of transferring the data integration/preparation from on-premise to the cloud. Companies are seeking a blended solution to handle stable workloads on-premise, with more variable use-cases reserved for the cloud. Cloud is here to stay as tailored solutions are required, especially in the wake of the financial service industry where regulations define the unique needs for businesses. Moreover, businesses continue to find the need to spread workloads over multiple clouds as a way to combat fluctuating demands.



## 4 DATA PRIVACY

California Consumer Privacy Act (CCPA) became effective on January 1, 2020. States such as New York and Massachusetts are proposing data privacy bills as no federal-level law exists at this point. Although both states are modeling their privacy acts off CCPA, stark differences exist. The growing expectation is other states will draft their own versions due to a lack of initiative and direction from Washington. This will add additional complexities as organization strain to comply with juggling multiple privacy bills, forcing organizations to dedicate more resources to understand the law and ensure compliance.



## 5 DATA COMMERCIALIZATION

Banks and other financial institutions will continue to define, refine and implement their data commercialization strategy, making significant considerations to data ethics. This will quickly become not only a potential competitive advantage but the minimum requirement for providing a high-quality digital service to both their retail and corporate customers. Adopting an end-to-end data commercialization framework is key to their success in deriving value from large data sets. This framework should ensure that challenges presented by the changing regulatory and market landscape are understood and addressed.



## 6 INTERNET OF THINGS

Internet of Things (IoT) continues to see strong growth, with upcoming projections showing a compound annual growth rate of (CAGR) of just under 30 percent heading into the new decade. As the number of IoT devices grows, so does the data accompanying it. IoT and data are joined at the hip as companies will begin to see machine-generated data grow rapidly. Unsurprisingly, companies will need to make use of ML to comb through the vast amount of data to remain efficient and not become overwhelmed. Businesses will need to apply data analytics to IoT data to unlock the full benefits of what is now the IoT behemoth.



## 7 REGULATORY LANDSCAPE

It comes to no surprise that federal and state regulatory agencies will continue to shift additional regulations onto the banking industry over the next few years. The burden remains with banks to strengthen their data management capabilities with a focus on reporting, risk management, and privacy. Individual states continue to lead the initiative as the current federal administration lacks the appetite in passing a single, comprehensive framework that would unite the US with trends amongst foreign countries. California's IoT law, SB-327, covers smart device security became effective on January 1, 2020. Expect to see state and federal regulatory agencies play catch-up to pass cybersecurity, IoT, and even AI laws.



## 8 ARTIFICIAL INTELLIGENCE (AI) AND MACHINE LEARNING (ML)

As the demand for data insights increases, organizations will continue to use AI and ML to supplement their business-as-usual activities. AI and ML have the potential to penetrate further into organizations and open opportunities to allow employees to focus on data analysis rather than data preparation. AI and ML will impact consumers as businesses refine their mobile apps and online portals. In today's world, AI and ML remain the best bet to streamline business operations and drive insights that can be acted upon by appropriate personnel in a timely manner.



## 9 AUGMENTED, REAL-TIME ANALYTICS

Another upcoming key driver will be combining AI and ML into analytics, as augmented analytics will significantly reduce the time employees spend to generate essential insights on the data. Organizations are ingesting more complex data, so creating efficiencies in the rationalization of data will be critical. Augmented analytics will become available to additional teams within an organization, thus requiring greater data literacy for users to take full advantage of this capability. Augmented analytics will be a driving force in new analytics for business intelligence offerings as businesses seek to optimize their activities. Adoption should become more straightforward as business intelligence tools are already embedded in companies.



## 10 NATURAL LANGUAGE PROCESSING

Natural Language Processing (NLP), a field within artificial intelligence, seeks to bridge communications between humans and computers. NLP strives to read, interpret, and understand natural language as used by humans. With the growth in computing capacity, NLP has become a reality and is driving increased business and consumer benefits worldwide. For instance, NLP today can be utilized to adopt virtual assistants and chatbots, extract and synthesize data/information, and help detect and reduce e-mail spam. Many may consider the current NLP landscape rudimentary, but NLP will continue to grow as it saturates deeper into organizations to make operations more efficient.

## AUTHOR

**Sandeep Vishnu**, Partner, Head of US Data and Technology, Capco

---

## ABOUT CAPCO

Capco is a global technology and management consultancy dedicated to the financial services industry. Our professionals combine innovative thinking with unrivalled industry knowledge to offer our clients consulting expertise, complex technology and package integration, transformation delivery, and managed services, to move their organizations forward.

Through our collaborative and efficient approach, we help our clients successfully innovate, increase revenue, manage risk and regulatory change, reduce costs, and enhance controls. We specialize primarily in banking, capital markets, wealth and asset management and insurance. We also have an energy consulting practice in the US. We serve our clients from offices in leading financial centers across the Americas, Europe, and Asia Pacific.

To learn more, visit our web site at [www.capco.com](http://www.capco.com), or follow us on Twitter, Facebook, YouTube, LinkedIn and Instagram.

## WORLDWIDE OFFICES

### APAC

Bangalore  
Bangkok  
Hong Kong  
Kuala Lumpur  
Pune  
Singapore

### EUROPE

Bratislava  
Brussels  
Dusseldorf  
Edinburgh  
Frankfurt  
Geneva  
London  
Paris  
Vienna  
Warsaw  
Zurich

### NORTH AMERICA

Charlotte  
Chicago  
Dallas  
Houston  
New York  
Orlando  
Toronto  
Tysons Corner  
Washington, DC

### SOUTH AMERICA

São Paulo

**WWW.CAPCO.COM**



© 2020 The Capital Markets Company. All rights reserved.

**CAPCO**  
THE FUTURE. **NOW.**