

NUCLEUS  
RESEARCH

# NUCLEUS TOP TEN PREDICTIONS FOR 2020

## ANALYSTS

Ian Campbell, Seth Lippincott, Barbara Z. Peck,  
Trevor White, Daniel Elman, Andrew MacMillen, Jeff Adams

## THE BOTTOM LINE

Nucleus's top 10 predictions for 2020 look at rising and falling trends and expand on one of our topics from last year. We look at market strategy for vendors and turn a critical eye towards the market's hottest buzzwords: blockchain and artificial intelligence. Pay cards and wage accessibility gain traction as organizations fight for talent in a historically tight labor pool. Cross-platform integrations capture greater attention from customers, while the true effectiveness of multi-cloud strategies and the prospects of tech's current CEOs warrant more scrutiny. Finally, end user security and financial performance management solutions are cleared for takeoff but will need a helping hand from Uncle Sam to overcome sprawling personal data security requirements.

## UNCLE SAM'S HELPING HAND

The sensitive nature of personally identifiable information (PII) has created dozens of minefields that companies operating in America must navigate. As individual states begin to expand personal privacy rights, operating across state lines will become increasingly complex and raise barriers to business. While major cloud vendors have begun to provide greater control over the physical location of cloud databases to remain compliant with data localization regulations, this is a stopgap measure that won't permanently solve the issue. Nucleus doesn't like the F-word, but this situation has become desperate enough to use it: The Feds need to step in now and create an American GDPR to head off the virtual impossibility of remaining compliant with 50 different state policies.

## BLOCKCHAIN STILL FAR FROM THE MARK

Blockchain is a lot like sex in high school. Everyone is talking about it, but nobody is really doing it. (The few who are, aren't doing it well) Outside of a few real-world use cases, blockchain is not delivering the value it has been hyped up to usher in. Nucleus has identified too many barriers to entry for conventional enterprise users, from high upfront investment costs to limited overall security. A distributed ledger is only as valuable as the data quality it tracks, and blockchain's inability to certify authenticity prevents it from contributing to data integrity. Nucleus predicts that blockchain is at least five years away from being widely adopted.

## ARTIFICIAL INTELLIGENCE: STILL MORE A THAN I

Researchers have made strong progress in improving the accuracy and explainability of machine learning models, but there's still a long way to go. Computers are great at separating a problem into its component parts and recognizing patterns around how these parts interact, but that's still far removed from being truly intelligent. Interacting with the chat bot on any website's welcome page still feels unnatural and often downright unhelpful. Likewise, the families of algorithms that determine things like creditworthiness, revenue forecasts, and facial recognition have promise, but are still immature and prone to errors. In fact, most "AI" systems being used today are simple rules-based engines built with a decision tree and a limited set of possible outcomes. Nucleus recognizes the potential for AI, but the limitations of today's solutions are easily lapped by vendor-generated hype.

## **VENDORS FINALLY STICK TO THEIR STRENGTHS**


In the last 10 years, the word “vertical” has become worse than profanity when describing anything new, from product development to corporate strategy. However, the vertical has been resurrected as the primary vehicle to deliver customized service offerings. Forward-thinking vendors have recognized this shift and are refocusing their commitments to meeting unique market demands. Recent technological advancements have eliminated the constraining factors that those vendors previously faced when tasked with specialization. Nucleus believes that vendors with a vertical approach will be more successful than their horizontal counterparts, due to their close alignment with specific customer needs and reduced cost of ownership, leading to a shorter overall time to value.

## **EMPLOYERS PONY UP FOR WAGE ACCESSIBILITY**

With retail margins and unemployment levels shrinking to microscopic levels, organizations with hourly workforces are looking for ways to attract and retain a dwindling labor supply. Past research from Nucleus suggests that 25% of Americans do not participate in a formal banking system and rely on expensive payday loans and check cashing services to access their funds. The majority of these Americans work hourly jobs and live paycheck-to-paycheck. By enabling employees to access their wages as they earn them with pay cards, HCM vendors can alleviate stress related to personal finances. While pay cards raise issues with taxes and who ultimately carries the administrative burden, they represent a differentiator to organizations in need of improved employee retention. Nucleus believes that organizations that implement on-demand pay with pay cards will retain employees despite the competitive labor market.

## **ALL YOU NEED IS INTEGRATION**

System integrations are the key to software success. Customers will soon begin to prioritize software’s ability to play nice with other solutions as they demand specialized service offerings. With the inherent flexibility offered by the cloud, users will increasingly search for connections to the best solutions, not the most convenient solutions. Despite recent moves towards comprehensive suites, Nucleus expects that vendors will begin touting “frictionless” integrations across platforms, rather than “seamless” integrations within their own stack. This connectivity will provide additional revenue to vendors and additional value



to end users by allowing them to maximize the utility of their existing data without being pigeonholed into a single vendor.

## **BREAKING UP IS HARD TO DO...OR NOT**

As the pace of technology mergers and acquisitions continues to increase, the winners and losers of each deal will begin to become apparent. Nucleus estimates that about 20 percent of tech CEOs will experience a “strategic transition” of some kind within the next 18 months. Nucleus has no confidence in the co-CEO model (looking at you, SAP) and believes that the leadership of successful companies must be owned and not shared. Renewed interest from executive boards and shareholders is prompting desperate moves from CEOs to reignite company growth, which will have scattered success. While we won’t be on the lookout for Ginni Rometty pulling espressos at the local Starbucks, we still feel that the winds of change are starting to blow for tech executives.

## **TOO MANY CLOUDS SPOIL THE VIEW**

Cloud vendors are touting the “if some is good, more is better” value message of operating in the cloud, but to what end? Nucleus expects that multi-cloud strategies will gain traction in 2020 but not necessarily to the user’s benefit. The redundancy of multiple clouds delivers both security and performance improvements to enterprise applications and the market will eventually expand to include all customers. With that being said, the current costs of a multi-cloud strategy now prohibit all but the largest enterprises from realizing its benefits. Nucleus believes in the long-term validity of the multi-cloud model but advises a prudent assessment of the actual benefits before implementation.

## **PERFORMANCE MANAGEMENT TAKES FLIGHT**

Although spreadsheets remain the primary source of reporting for more than half of enterprises, the tide is shifting. As we all know, the finance industry is a technological laggard, but Nucleus believes that CPM vendors will be among the fastest growing companies of 2020. CPM customers have begun to recognize the value of actually tracking financial performance against planned budgets. Nucleus estimates that 50 percent of the total addressable CPM market is untapped and relies on basic spreadsheets to monitor financial activity. The market opportunity for both established vendors and new players will

attract further external investment in the space, giving customers a greater number of solution choices at competitive prices.

## **GIMME SHELTER**

The greatest security threat to any enterprise is internal and has nothing to do with technology—it's the end user. Whether malicious or unintentional, the end-user is the Achilles Heel of corporate security. Nucleus estimates that 90 percent of security breaches result from a lack of user education or inadequate security procedures. Making end users aware of the consequences of their actions, including examples of worst-case scenarios, must be an integral part of security education exercises. Clear operating procedures should include step-by-step password management, preset conditions for internet access, and a trusted resource for any issues. However, if you're ever in doubt, just remember Nucleus's golden rule for security: "Don't click on it!"