NUCLEUS TOP TEN PREDICTIONS FOR 2018

ANALYSTS

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THE BOTTOM LINE

Nucleus's top 10 predictions for 2018 highlight the human and results side of existing and disruptive technology. The impact of technology on workers will significantly increase pre-interview testing while reducing the need for limited-skilled workers. Skilled workers will find bots, artificial intelligence (AI), and coaching assistants there to help increase productivity, adding a revenue challenge for vendors with per-seat pricing models. The shine really starts to wear off for Siri and Alexa as the word "annoying" is used more often with them than "useful." Infor rises while IBM continues to wander aimlessly. The remaining best-of-breed applications will scramble to find a dance partner before integrated cloud-delivered suites cover the entire world.

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NOBODY BELIEVES YOUR GPA

As the number of college graduates in the United States continues to rise steeply, so too will the need for rigorous job candidate testing. This is because the apparent value of a college education is doing just the opposite: falling like a rock. Colleges everywhere seem to have become little more than daycare for grown children. Today's typical post-secondary school students are far more committed to fighting institutional fill-in-the-blank this or that than pursuing degrees in fields that might pay a good living. A degree that might turn their years in college into something other than glorified rites of passage into adulthood that leave their parents' savings depleted, retirement plans destroyed, and souls crushed. Hiring manager after

hiring manager will say recent graduates' aptitude and penchant for business are on the wane.

Nucleus asks the question: What do employers get out of an expensive education in studies that barely apply to reality? They need reliable instruments to measure recent graduates' ability to carry out the work of entry-level jobs. Nucleus has already implemented pre-interview testing and predicts a boon in 2018 to the professions and industries that spur and support the development and use of candidate testing instruments. Meanwhile, employers that fail to test their entry-level hires may very well end up hiring recent college grads whose sole qualification for the job is that they monitored the "safe space" once at an Antifa rally.

DEATH OF THE EMPLOYEE

As the sophistication of technological automation continues to intensify, the death of countless jobs is at our doorstep. These are jobs that today are not only commonplace, but also deeply engrained in the culture. First to go will be the jobs requiring the least in the way of skills. Think cashier at the local fast food joint. Campaigns to force employers to pay these workers far more than they have historically are only hastening the arrival of the endgame: the advent of ordering kiosks, robotic grills, and fryolators leaves franchisees with close to zero in labor overhead, and these technologies will become the obvious way forward for most soon enough anyway—leaving teenagers with fewer ways to make money.

Then there's driverless technology, which may hit automobile enthusiasts hardest in spirit, but promises to leave the trucking industry barely recognizable. Say goodbye to truck driver as a viable career option. Even the job of bartender is at risk. Nucleus took an internal poll, and the team was nearly unanimous in preferring a hypothetical drink prepared by a robot than by a real, live person. Staff agreed that perhaps the very best human bartenders would remain to fill suddenly far more competitive positions pouring the top shelf drinks. But there goes the dream for millions of young people to land that coveted side hustle making thousands per week in tips. For white collar jobs, the wait will be longer, but the threat of AI looms. Even today relatively basic AI programs—not humans—are writing content such as stock market reports and more. With any luck, AI is a long way from replacing the client relations and analyst staff here at Nucleus Research, but we concede that even this is a possibility in the coming decades.

THE IBM BOARD WAKES UP

With a revenue losing streak that would make the Washington Generals wince (https://en.wikipedia.org/wiki/Washington_Generals), Ginni Rometti's tenure at IBM has been interesting if not questionable. We'll cut to the chase: she's not the one. We'll put aside the positive PR-spun (and slightly threatening) response from IBM to the blogs we wrote earlier in the year—blogs by the way that generated a flurry of positive emails from IBMers—and focus on the results.

There are two tasks for any CEO. First, set a clear direction, and second, build a unified team enthusiastic about that direction. Ginni has done neither. For direction, claiming AI is the future and slapping "Watson" on everything IBM is not a strategy. Even less so when, despite name recognition, few understand what Watson is or how it can be effectively deployed. Marketing matters. As for a sense of team, our interactions with IBM employees we've known for years does not paint a rosy picture. It seems like a few too many are in big-company-protect-your-pension-and-don't-make-waves mode. This is not good. So Ginni, if you want to make IBM great, define IBM's vision in nine or fewer inspirational words and make IBMers proud to wear their IBM fleece jackets again.

THE RISE OF LIGHTWEIGHT ANALYTICS

Execs are realizing that analytics isn't just for nerds (sorry, IT team). It can be for casual business users as well. In fact, when individual departments engage with data through dashboarding and visualizations in self-service business intelligence (BI) tools, they're able to explore the data themselves and creatively reimagine business problems. Big and small companies both benefit from self-service applications. Bigger companies use it departmentally, often on top of other more powerful analytics engines. They're finding that users can leave the heavy lifting to the IT team and work with smaller chunks of relevant data on their own time.

Smaller companies, on the other hand, are using self-service products because of their low barrier of entry. Even if a business can't afford an end-to-end analytics stack, they usually benefit from a lightweight application that can handle basic reporting and create compelling visualizations. It doesn't matter how small your company is, we'll see a rise in lightweight products as a more sophisticated alternative to Excel even at the lowest levels of reporting.

DEFINING THE CRM USER

With increasing automation, bots, and consumer-facing customer relationship management (CRM)-driven apps, the user count for CRM deployments will continue to fall in 2018, with one in four traditional CRM seats disappearing by 2020. Sales automation and coaching, consumer-facing service apps, and AI will reduce the need for humans and their associated per-seat licenses. For customers, this will mean a lower overall per-seat license bill and the ability to make processes more reliable, consistent, and less prone to human variability. For vendors, this will mean rethinking per-seat pricing contracts and how they can continue to grow revenues when seats are no longer the predominant pricing metric.

CAN YOU HEAR ME NOW

Catchy demos and South Park aside, Alexa and Google (and Siri, for that matter) still have a long way to go before they become the conversational interface for enterprise applications. Although we'll see an increasing number of product announcements and handfuls of interesting pilot projects, two things will have to happen before conversational apps take hold. First, Alexa (or your voice engine of choice) will have to get better at pattern matching and natural language search in real time. Today it's still easier to search yourself rather than ask Alexa to perform even the simplest of queries, reducing her usefulness to a glorified light switch and newsreader. Second, the real effectiveness and value of conversational apps will have to reach beyond basic data capture (sales recording call notes in CRM, for example) to make it worth the time in the enterprise arena.

WATCH INFOR

Looking at the technology landscape, Nucleus sees Infor as the company to watch in 2018—and beyond. Infor is one of the fastest-growing software-as-a-service (SaaS) companies on the market, accelerated by Koch Equity Development's $2.5 billion investment in November 2016. Infor is headquartered in New York City, lending to a decision tempo that outpaces other vendors and a talent pool oriented towards digital design. With a strong presence both on the East Coast and in Europe, Infor finds strength in its proximity to customers that isn't matched by those companies based in primary-colored safe office spaces somewhere in Silicon Valley.

As a private company, Infor has been focusing its investments where it—not the stock market— sees the most potential, most recently directing resources into its internal design agency, Hook & Loop, and the 65 PhDs focused on developing predictive analytics at the Infor MIT Dynamic Science Labs. Infor differentiates itself

through a focus on targeted industry solutions, developing cloud, AI, and machine learning capabilities to solve specific industry problems. In a world that increasingly emphasizes specialization and usability, Nucleus expects that Infor's industry- and design-focused solutions will give it an advantage.

SALES FUNNEL BECOMES SALES ROAD

Last year, Nucleus predicted the death of the sales funnel, and this is a trend that Nucleus believes will continue. Companies across all industries are realizing that loading leads into the funnel is a waste of time and resources. With continued advances in marketing automation and consumer relationship management, companies can tailor their approaches.

That means that instead of spending resources generating as many leads as possible, companies are targeting their resources into finding customers who have a higher propensity to buy from the very beginning. This narrowing of the top of the sales funnel means companies spend their time trying to respond to the individual requirements of actual prospects rather presenting generic solutions. Ultimately the sales funnel becomes the sales road with the sales rep the guide on the journey.

GOODBYE, BEST-OF-BREEDS

While best-of-breed solutions are good at what they do, customers in 2018 will increasingly find them lacking in two critical ways. First, they don't necessarily play well with others. And second, their 10-year roadmap isn't clear-cut. Although rapidly improving thanks to the proliferation of open application programming interfaces (APIs), stand-alone solutions do not move in concert and must be integrated with each other, adding to IT costs and upkeep. More critically, many customers are looking to expense their next technology investment, and an integrated SaaS-delivered solution provides a one-stop-shop.

Deploying solutions that are going to be responsive to the changes in business technology for years is critical to leveraging long-term value. With many vendors focused on building an ecosystem of partner solutions around their platform technology and investing heavily in how well that underpinning technology will continue to service the needs of customers far into the future, customers opting for stand-alone solutions may get left out in the cold.

HYBRID WEARS OUT ITS WELCOME

Vendors have done a disservice to customers and prospects by heavily marketing "hybrid" solutions as an intermediate step between legacy on-premises solutions and the cloud. However, conceptually "hybrid" has become so meaningless that it has hindered customer understanding of what is available to them and how they can get value from what vendors are offering.

Since inertia is one of the primary forces keeping companies from upgrading, offering flexible deployment options is an easy way for marketing to justify their budgets. However, most vendors fail to articulate what hybrid really means and use it as a catch-all term. In terms of engendering customer understanding, "edge computing" offers far more. In 2018, vendors will realize that their meaningless jargon does more harm than good and kill off talk of hybrid deployments.