

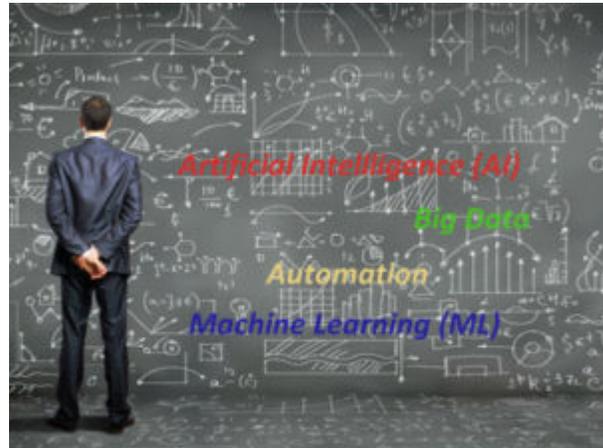
Overcoming Our AI and Automation Fears

I am an optimist; always have been. That is why I find all of the growing anxiety around the advance of technology so fascinating. No doubt, the triad of Artificial Intelligence (AI), automation and big data are driving profound changes in business (and society) given their bottom-line impacts. What I don't fully understand is the growing hysteria – often led by responsible business and scientific leaders – that suggest that AI and automation may led to WWII (Elon Musk) and / or massive and growing economic discontinuities / inequalities ([Stephen Hawking at the recent World Economic Forum](#)).

Change is Hard

Yes, automation and AI will cause major economic dislocations, and forever change the employment landscape. *Change is hard*. Yet when has business and society been static? The range of transformative technological and scientific improvements over the past 150 years has been staggering – regularly impacting markets profoundly, and often over a very short period of time (e.g., advent of electricity). The only issue today is that the *pace of change has accelerated*, and the technologies that are transforming business and society now are being

applied to cognitive problems that previously were believed to be the endeavor of humans. Frankly, in my opinion, we are only in the early stages of the economic and employment disruptions / discontinuities that are likely to occur. *And while change is hard, change is usually good.*



Earlier this month, ServiceNow (NYSE: NOW) and Oxford Economics published a terrific new 24-page report focused on the business impact of machine learning (ML) and automation entitled [Global CIO Point of View](#), based on a survey of more than 500 CIOs in 11 countries. To net it down, the report asserts that ML is at the very heart of most CIO digital transformation efforts as they reimagine the way that their enterprises work. Some of the key findings from the study include (lightly edited from the report):

- Almost three-quarters of CIOs surveyed (72%) are leading digitization efforts, and more than half (53%) say [AI and] machine learning is a [strategic] focus.

- Nearly 90% say greater automation will increase the accuracy and speed of decisions.
- Over two-thirds (69%) of CIOs say decisions made by machines will be more accurate than those made by humans.
- CIOs who are at the forefront of adopting machine learning recognize the need for process and talent changes, but many cite challenges – including the *need to redefine job descriptions to focus on work with intelligent machines*, and hire employees with new skill sets.
- Data quality (51%) and outdated processes (48%) are substantial barriers to adoption.
- Lack of skills to manage smart machines is cited by 41% of CIOs, and lack of budget for [the acquisition of the] new skills is cited as a challenge by 47% of those surveyed.
- A select group of CIOs, whom ServiceNow and Oxford Economics call “first movers,” is outpacing their peers in their use of machine learning.
- Roughly 80% have developed methods to monitor machine-made mistakes vs. 41% of others.
- Half of them say automating routine processes will be key to their business’s success compared with 33% of others; more than three-quarters have redefined job descriptions to focus on work with machines, compared with 35% of others.
- Almost 90% of first movers expect decision automation to support topline growth vs. 67% of

others.

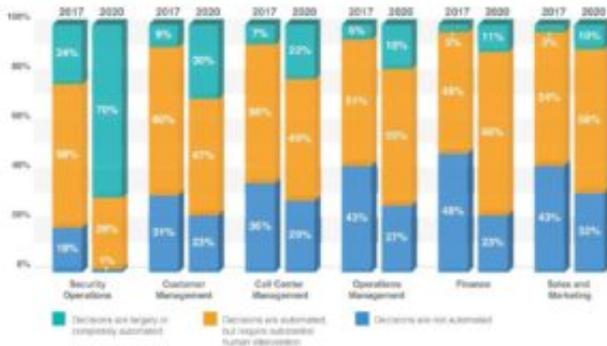
The lack of skills to manage our new machine-learning driven business environment will likely continue for some time. In a recent ISG Insights report, based on a survey of more than 300 senior IT and business professionals (Automation and AI Survey 2017 – Enterprise Plans and Operating Model Impact – [click here](#) for a summary Research Alert), former ISG colleague Stanton Jones reinforced this key challenge:

“. . . as enterprises become more willing to embrace automation and AI, their number one issue will be talent – whether sourced internally or via a provider or partner ecosystem. Our research identifies data science as the most important skill set of the future and the one companies are having the least success finding and retaining.”

I found the following chart from the ServiceNow report especially revealing, as it reconfirms in my mind the fact that automation and AI / ML are mostly supportive technologies in the decision-making process, and that except for the automation of truly low-skill repetitive tasks, *they will only enhance, not replace, most decision making and job roles.*

Title: Most decisions still require human intervention

Q: To what extent, if any, does your organization automate decisions for the following tasks? n=500



Source: ServiceNow and The Global CIO Point of View
“The New Agenda for Transformative Leadership: Reimagine Business for Machine Learning” N=500+

Fear mongering related to change is not new. I still fondly remember reading about [Thomas Malthus](#) (1766-1834) and his systematic theory of population in which he proposed:

“the principle that human populations grow exponentially (i.e., doubling with each cycle) while food production grows at an arithmetic rate (i.e., by the repeated addition of a uniform increment in each uniform interval of time). Thus, while food output was likely to increase in a series of twenty-five year intervals in the arithmetic progression 1, 2, 3, 4, 5, 6, 7, 8, 9, and so on, population was capable of increasing in the geometric progression 1, 2, 4, 8, 16, 32, 64, 128, 256, and so forth. This scenario of arithmetic food growth with simultaneous geometric human population growth predicted a future when

humans would have no resources to survive on”
(quoted from the [AAG Center for Global Geography Education](#)).

Little understood by Malthus and his contemporaries at the time were the incredible productivity gains brought about by the 2nd Agricultural Revolution of the late 18th and early 19th centuries, that paralleled the advance of capitalism and the Industrial Revolution. More recently, agricultural yields have skyrocketed based on modern biotechnology and advanced digital technologies – with governments throughout the world often paying farmers not to farm so as to manage yields and maintain pricing stability.

Creative Destruction and Remaining Optimistic

So I remain an optimist – as today we don’t even know the new innovations and markets that will be created, at the same time that some jobs will be destroyed. Capital for labor substitution isn’t new – especially when it unleashes profoundly new and better outcomes, and innovative forces. This is what Joseph Schumpeter’s (1942) model of “[creative destruction](#)” is all about. What the current trends clearly indicate, however, is the tremendous need for labor market retraining investments, especially to help those caught with yesteryear skills become more relevant in our emerging knowledge-based and service-oriented

economy.

And I am not just talking about one-off retraining programs, but a long-term commitment to continuous training. This includes structural changes to the US economy and our educational system that helps foster technical skills [up and down the job ladder] that helps create talent suitable for the 21st century. Other countries, most notably Germany and France, do a much better job in these regards. Let's learn from our long-time partners about [dual-track vocational programs](#), and other important initiatives that are working. As I regularly tell my daughters, becoming a lifetime learner is not only fun, it will be critically important to their success and happiness.

My friends over at Cognizant Technology Solutions (NASDAQ: CTSH) are likewise optimists. This past February they provided me an early copy of their newest book, [What To Do When Machines Do Everything: How to Get Ahead in a World of AI, Algorithms, Bots and Big Data](#) (Feb 2017, Wiley), co-authored by Malcolm Frank, Paul Roehrig and Ben Pring. In the preface to the book, they tackle this issue head on:

“Will the new machines displace many current workers? Yes. However, on a larger scale, new machines will also create work that is better, more productive, more satisfying than ever before. The new machines will raise living standards and usher in a new period of widely distributed economic

growth that will be far stronger than any we've seen in the Western world during the past 50 years."

Please join me in being an optimist. We live in an amazing time, and the future is ours.

If you are not already [subscribed to my blog](#), I encourage you to do so. Next week I'll provide highlights from my trip to New York City and the IBM Cloud Analyst Summit that I'll be attending. As previously noted, my plan is to publish a blog post roughly once a week, so I won't overwhelm your inbox!

Bill McNee
26Oct2017

McNee Associates Is Officially Launched!

I am delighted to announce that McNee Associates officially launched earlier today – a new blog platform I will use to explore the key trends and technologies that are driving business innovation, and

related topics.



I've been tracking emerging and disruptive technologies that are transforming business and society for more than 30 years, starting in the mid-80s (when I worked in finance and strategic planning roles at CBS and HBO), through more than a dozen years at Gartner as a research analyst / executive, and more recently at Saugatuck Technology and ISG. At this point it's firmly rooted in my blood, and I look forward to the evolving journey!

Here's a link to my first blog post, entitled "[Workday Rising 2017: Signposts of an Evolving Strategy.](#)"

Mission and Operating Principles

McNee Associate's mission is pretty simple – to provide a platform to help senior business and IT leaders think clearly and deeply about the future, so as to be better prepared to develop and execute winning technology-enabled business strategies.

The goal of the blog is to cut through the jargon and

the buzzwords, delivering original insight and analysis around the key market shifts that are occurring, and the players who are making it happen. In my experience, consistently questioning commonly held assumptions is key to creating new awareness, which is fundamental to developing and honing winning strategies and tactics.

As has been my research philosophy for many years, the blog will include first-person research I'll conduct with early adopters – both summary insights as well as extended interviews – who often share important lessons learned and the key challenges to be overcome, as well as regular engagement with leading and emerging technology providers to stay abreast of changing market dynamics. I look forward to actively engaging with our network of seasoned business and IT leaders, as well as meeting all of the interesting entrepreneurs and industry leaders that are leveraging a range of disruptive technologies transforming business and society. Where appropriate the blog will leverage 3rd party surveys (when credible), and over time we may develop and publish our own forward-looking surveys as the blog evolves.

I'll be the primary author of this blog, although I may occasionally invite guest bloggers to join in the debate. Further, I want to welcome all of our readers to be a part of our journey, so please reach out with your thoughts and feedback, to help make the blog better and more useful.

Key Areas of Focus

Find below some of the key trends that I will be tracking and writing about (alpha order only):

- Advanced Analytics / Data Science
- Artificial Intelligence (AI)
- Business and Technology Architecture
- Business / IT Platforms
- Business Model Evolution
- CIO / CFO / CMO Spending
- Cloud Analytics / Planning / Budgeting
- Cloud ERP / Financials
- Cloud HCM
- Digital Strategy / Enablement / Transformation
- Digital Marketing / Digital Customer Engagement
- Driving Innovation / Innovation Management
- Emerging Technology Trends
- Future of Work
- Internet-of-Things (IoT)
- IT Economics
- Next-Gen Technology-Enabled Products / Services
- The New Finance

I very much look forward to the journey ahead, and encourage everyone who visits the website to [subscribe to the blog](#), and to join me in the coming weeks and months ahead as we explore the future of Business IT!

My plan is to publish a blog post roughly once a week, so I won't overwhelm your inbox!

Best,

Bill McNee
Managing Principal

Workday Rising 2017: Signposts of an Evolving Strategy

Earlier this week, I attended Workday Rising 2017 in Chicago, along with 8,500 customers, prospects, partners and industry influencers. While there is little doubt that its HCM and Financial Management apps continue to drive the vast majority of its top-line revenue growth, Workday used Rising as a forum to emphasize its continuing commitment to innovate, which is now squarely focused around its growing analytics and platform capabilities.



Source: McNee Associates
LLC

Prism Analytics and the Rise of Workday's Data Strategy. I had a chance to talk informally with more than twenty current customers (along with a handful of prospects), and across the board the feedback around the launch of Prism Analytics and its Data-a-as-Service initiative was very positive. Built on the backs of its acquisition of Platfora in 2016, the fully rewritten Prism Analytics provides powerful data integration / self-service data discovery / analytic engagement that can be used against both Workday and non-Workday data alike.

While Workday will no doubt continue to be known as a next-gen apps player, the launch of Prism Analytics combined with its investments in Benchmarking, Planning and Worksheets, are clear signposts of Workday's "data" diversification strategy. Frankly, I think this is very smart, as it will not only provide value to existing customers, but will likewise help open doors to a range of new buyers – especially in the Office of the CFO – who otherwise might not yet be ready to commit to a core financials application overhaul. More on that below.

As CEO Aneel Bhusri emphasized in his keynote, Workday is evolving to become an important "System of Insight" (and in support of what Mike McNamara, CEO of Flex termed in his Weds AM keynote, the "Age of

Intelligence” – see [Vinnie Mirchandani's](#) excellent post for more on that). In support of this theme, throughout the conference Workday's presentations were littered with the mantra of “Plan, Execute, Analyze” – new messaging that the brand will get behind that helps frame the scope and breadth of its evolving vision.

Cloud Platform – The Next Chapter. Combined with its investments in analytics, Bhusri shared further that, “Cloud Platform is a new chapter for Workday.” After a soft launch with Partners earlier in the year, Workday is now delivering a set of API-driven Platform-as-a-Service (PaaS) capabilities targeted to both customers wanting to extend their current application footprint, as well as SI Partners and ISVs looking to develop unique solutions at either the industry or business process level. We see this as an important competitive catch-up move, as SAP and Oracle can no longer use their rich PaaS toolsets as a unique competitive threat. In fact, this may help accelerate some large enterprise accounts to abandon their (often frozen-in-time) 20+ year-old legacy deployments now that they can have their cake and eat it too (in terms of off-the-shelf Cloud apps plus custom development capabilities from Workday).

Ten Year Retrospective. At Rising, I had the pleasure of catching up with Brian Sommers of [TechVentive](#), who reminded me that he had seen me speak years ago at a Workday event in Chicago at the Intercontinental.

After thinking about it, I realized it had been during Workday's initial kick-off briefing tour in the late Spring 2007, when Workday first went to market. It was a lot of fun traveling on the five-city tour with Co-founders Dave Duffield and Aneel Bhusri, Deb Wolf (former VP of Marketing) and the rest of the Workday team as they unveiled their innovative new offering.



Source: McNee Associates LLC, N=23 customers attending Workday Rising 2017

Customer Satisfaction. But what was true then is even more true today. I walked away from Rising this year with a firm sense of continued strong momentum for Workday based on two simple questions asked of the 23 customers I spoke with. The first question focused on how "Satisfied" they were with their investments in Workday. The second question focused on whether they would be investing more or less with Workday in 2018.

In regard to the first question, I asked them to rank their level of satisfaction, with a “5” being Highly Satisfied, “3” being Satisfied, and a “1” being Highly Unsatisfied. As the chart illustrates, 96 percent rated their relationship “Satisfied” or better (52 percent “Highly Satisfied”) – with the biggest complaints being: 1) an inability to keep up with the pace of innovation, and 2) growing “skills” challenges, especially around getting the attention of both Workday and 3rd party consultants for routine project work. In regard to the 2nd question, 60 percent indicated that they would be spending more money with Workday in 2018 than in 2017, 36 percent roughly the same, with only 1 individual indicating that spending would be down moderately.

Customer Counts. Framing things in a ten-year perspective, Workday has now grown to 1,800+ customers, with projected F18 revenue in excess of \$2 Billion. While virtually all of its 1,800+ customers have its core HCM offering, Workday is gaining significant traction across the range of application and analytics segments that it is now pursuing. Customer counts shared at Rising include:

- 370+ Financial Management (58% of which are now live)
- 500+ Expense
- 300+ Procurement
- 170+ Planning

I found the 170+ Planning customer count especially impressive, since the offering was only launched a year ago. At the 2017 Tech Summit that I attended in mid-May, the customer count had reached 110 – so it appears that demand is accelerating quickly. It was noted by Betsy Bland, VP Product Management, that 75 percent or more of demand has been driven around Financial Planning use cases, but they have been pleasantly surprised by its use for Workforce Planning and other non-financial use cases.

AWS and the Public Cloud. While I was surprised that a Public Cloud roadmap was not formally announced at the conference, Workday made clear that they are very committed to a Public Cloud option for their customers, and continue to invest to support the AWS platform. In the Wednesday morning Executive Q&A session with Industry Analysts and Influencers, it was made clear by Bhusri and David Clarke (SVP Technology Development) that “we are at least a year away from offering AWS . . . By the middle of 2018, we will have our 1st set of customers live in Canada [where it is being tested] However, for the next 5-7 years we will primarily be using our own Cloud.” At the same time, Workday shared that it would be increasingly taking advantage of cutting edge features on AWS that they would have a hard time matching internally – *implying that eventually (in a 5-7-year timeframe) a majority of the Workday workload may reside in the Public Cloud.*



Source: McNee Associates
LLC

Summing Things Up. On Wednesday morning, in a side conversation with me just prior to the Executive Q&A session, Bhusri recalled the initial briefing roadshow of ten years ago, and brought up some of the demand forecasts developed in the early days of the SaaS / Cloud revolution. “[Looking back,] I think we are ahead of where we thought we would be in HCM at this point, but just a bit slower in Finance.” However, Bhusri emphasized that the firm’s investments in Planning and Prism Analytics were likely to accelerate demand in Financial Management, sharing “if [the customer has] HCM, Planning, Prism Analytics and Benchmarking, it is only a matter of time before they adopt our Financials.”