

Technology and my Passion Blog

A couple of months ago, my long-time friend and former colleague at Gartner – [Vinnie Mirchandani](#) – asked me to contribute to his *Technology and my Passion* series on his blog.

This past weekend I finally put butt-in-chair and sat down to draft a piece on birding, photography and nature. I hope you enjoy the read!

<https://florence20.typepad.com/renaissance/2020/05/technology-and-my-passion-bill-mcnee-on-birding-photography-and-nature-.html?fbclid=IwAR1TDRoFYarbUXABHNfwB8b7BizaMrnAkvthEZWzYunzHDRMYAamFNqMrAc>

A Respectful Bow to Ginni Rometty

Yesterday, it was announced that Ginni Rometty will be stepping down as CEO of IBM, effective April 6, after serving in that role since early 2012. In her place,

the BOD has elected [Arvind Krishna](#) as the new CEO, as well as electing Red Hat CEO James Whitehurst as IBM's new president. Rometty will remain the company's Chairman until the end of the year, when she will fully retire.



From all that I have heard, Krishna is an accomplished business and technology leader and should do a terrific job leading IBM going forward. He knows IBM and its culture well, having been with the company for 30 years. He is currently serving as SVP for Cloud and Cognitive Software and has been cited as one of the principle architects behind the recent acquisition of Red Hat. As Rometty shared in the press release announcing the executive leadership changes, "Arvind is the right CEO for the next era at IBM. He is a brilliant technologist . . . [and] a superb operational leader, able to win today while building the business of tomorrow."

Interestingly, this is the first time in a long spell that all three top positions at IBM have been held by three different executives – implying to McNee Associates that this is a well-thought-out succession plan as well as *reflecting on just how important IBM's acquisition of Red Hat is to the future of the company.*

This blog post is not about IBM's go-forward plan or strategy, but instead a reflection back on the journey that IBM has taken over the past 5-10 years, the significant role that Ginni Rometty has played in making IBM relevant for the next 10+ years, and some of the key challenges that IBM faces going forward.

I briefly met Rometty for the first time in the late 1990s when I was still with Gartner full time, and again in the early 2000s when I remained affiliated with the company as an external "Gartner Fellow" for a couple of years. My most vivid [initial] memory of her, however – *when I fully took the measure of who this powerful leader would become* – was at a special "industry congress" I attended in June 2004 [along with several hundred industry analysts in Monte Carlo], in celebration of the 10-year anniversary of the founding of IBM Global Services (subsequently renamed into two divisions, Global Technology Services and Global Business Services). I still have and use the leather note pad cover I received at that event, when I travel to industry analyst summits today!

Less than two years earlier, Rometty had championed and helped negotiate IBM's acquisition of PWC's consulting arm for \$3.5 billion, and then led the integration of PWC with IBM's consultants – all of which changed the game it was playing and squarely put IBM on the map in business services. It was obvious what a terrific communicator she was, and what a bold leader and risk taker she would become. I recall how

impressed I was with her and noted to myself at the time that she was clearly on the path up the IBM executive chain.

Rometty Becomes CEO

March forward eight years. On January 1, 2012, Rometty became IBM's first female CEO. Just prior to this time, IBM was able to continue its formula of growing earnings with flat revenue performance. However, within two years of Rometty taking the helm that started to change, fundamentally. Services revenue growth started to sag significantly, and its bet on China stopped paying off.

More importantly, for the prior two years Rometty had been shackled by the weight of her predecessor CEO's unrealistic promise to Wall Street in 2010 that IBM would hit \$20 in earnings per share by 2015 – even though Palmisano knew he wouldn't be around to have to manage to it.

By October 2014, Rometty quietly but firmly closed that chapter (and its crazy earnings commitment) and began a fundamental rethinking of IBM's go-forward strategy and place in the world. Business computing changed a lot between 2010-2014, as the pace of Cloud adoption accelerated rapidly. These were troubling times for legacy vendors, across the full spectrum of the business computing landscape. I remember it well, as we won numerous consulting assignments at my

research and advisory firm Saugatuck Technology around a specialized practice we created helping legacy vendors transition their businesses to the Cloud. The list of companies was long, but included SAP, Microsoft, IBM, Wipro, Lenovo, Cognizant, HP, Sage, Infor, Pitney Bowes, Adobe, Dell and Cisco, to name a few.

No doubt, Rometty's legacy is mixed. Critics can point to the fact that the stock price languished for the better part of the past five years, amid the torrent run-up of cloud hopefuls and giants. Could have Rometty pushed the pace of change faster? Probably. However, Rometty was handed a company that needed to be substantially reshaped to remain relevant for its current and future customer base. In my opinion, one of the biggest issues was the legacy culture at IBM that just wouldn't accept that the world was changing faster than they wanted it to, and its internal forecasts had anticipated. The transition has been painful to say the least.

By the fall of 2016, with red pouring out of both the top and bottom line, Rometty had to move fast – but the ship she was steering was, and still is, big. After the devastating October 2016 earning call, Steven Milunovich, a well-known Wall Street analyst at UBS, estimated that two-thirds of IBMs revenues at that time were still driven by traditional hardware, software and services products, and noted how tough multiyear transitions can be on legacy businesses.

While the new businesses were growing robustly, the legacy businesses were contracting at a rapid pace. The issue was how soon would the two lines cross, with the new business segments surpassing in size the contracting legacy businesses.

Two years later, IBM announced its acquisition of Red Hat for \$34 Billion, the largest acquisition in its history – as it moved to position itself as a “kind of corporate ‘Switzerland’ in cloud computing – a trusted partner of businesses that are moving to the cloud, but are leery of becoming dependent on one major cloud supplier,” according to the [New York Times](#).

While Rometty had reached the normal retirement age for IBM CEOs in 2018, she agreed to stay on for two more years to finish the job that she began back in 2012: *seeing IBM successfully reach sustainable revenue and profit growth.*

In many regards, the portfolio transformation that occurred under her watch was by far the largest in scope and scale at the company in its 100+ year history, and bigger than what has occurred at many other F500 firms. IBM was reinventing itself and its brand from one associated with mainframe computers, middleware and outsourcing, to one focused on next generation technologies such as machine learning / artificial intelligence, Cloud, cyber security, blockchain and quantum computing.

Key Accomplishments

Yesterday I had a chance to connect with a long-time analyst colleague, and we came up with four primary areas of focus that Rometty can especially be proud of:

First, Rometty shed IBM's investment in and dependence upon products / markets / services that were lower-margin, or were heading toward commodity status, or extinction. Several great examples, among many include:

- The refocusing of its services business away from traditional outsourcing and toward more profitable services;
- The selling off of a range of non-strategic software assets to HCL in 2018 to bring more focus to its core go-forward mission; and
- The spinning off of its semi-conductor business to GlobalFoundries in 2014; and
- The sale of a significant portion of its server business to Lenovo in 2014.

Second, Rometty drove IBM to increase its focus on products / markets / services that are heading toward near-term or long-term growth.

- This includes its significant focus on AI / Watson, Blockchain and Quantum Computing – all delivered on **IBM's** enterprise-strength cloud platform – as well as major investments in key

verticals such as health care, and value-add offerings such as the acquisition of the Weather Channel.

Third, Rometty maintained IBMs focus on high profit margin products / markets / services where it has minimal or no competition. This includes mainframes, and mainframe software.

Lastly, the acquisition of Red Hat.

- While Rometty's "bet the farm" purchase of Red Hat was considered by some as a concession that its prior strategy was not working fast-enough, the bottom-line is that Red Hat is clearly helping to now drive significant and sustainable top-line and bottom-line growth for the company.

Rometty's Legacy

No doubt, only recently have we seen the turnaround fully express itself in positive revenue and profit performance, after a number of years of declines. Today, more than half of the company's revenues are coming from the emerging, high-growth segments of IT.

Rometty put Cognitive / ML / AI at the center of IBMs strategy, building assets that are not easily commoditized. In fact, Rometty's ultimate legacy might be that she has steered the company into becoming primarily a data company.

As the father of three beautiful and intelligent daughters, Rometty's efforts to keep women in the workforce likewise remains a key long-term accomplishment. She pushed for extended leave, a breastmilk delivery program and returnships. I love this quote from Rometty:

"You've got to keep women in the workforce, whether it's through having children, caring for elder parents, all the things. Not that husbands, spouses, and partners don't do those things as well, but it's often what takes them out, and then to get them back in is hard. You keep them in the workforce and your odds are much higher. And that's one of the many things we do (at IBM)."

Lastly, to me Ginni Rometty will always be known for her bluntness, determination, and risk taking, as she was not afraid to try new things, and break glass, to maintain IBM's leadership in the market. These are all signs of a strong and effective leader.

The Road Ahead

No doubt, IBM has many challenges ahead while it continues to transform the company. This includes first and foremost, learning to compete with Cloud giants such as AWS and Microsoft, especially with mid-size customers, and in regard to new application development. Second, IBM needs to make sure that Red Hat continues to grow unimpeded by the conventional

IBM bureaucracy. And third, IBM needs to continue to identify new high-growth, high-margin markets where it can carve out a defensible market position.

Yet one can only be optimistic that IBM has now turned the corner – with a special thanks to Ginni Rometty for helping the company get there.

Workday Rising 2019: Machine Learning Front and Center

Last week, I drove to the Orange County Convention Center in Orlando, Florida and attended Workday Rising – joining more than 13,000 attendees, and a global live streaming of the event. The conference theme – “For a Changing World” – helped Workday highlight its continuing commitment to innovation, especially in regard to applying machine learning to core business

systems.



Aneel Bhusri, Workday Co-founder and CEO, set the tone early in his keynote, sharing *“the technology of today that I believe is as disruptive as the cloud is machine learning . . . Machine learning helps you harness the power of data. It’s very clear that this is the way the world is headed.”*

Top-line Growth and Margin Expansion

It astounds me how rapidly Workday has grown to become a powerhouse in the cloud. Fifteen years after its founding, the company now has over 2,800 HCM customers, 725 Financial Management, 650 Procurement, 275 PRISM Analytics and 4,500 Planning (with the acquisition of Adaptive Insights a little over a year ago).

Top-line revenues are projected to hit \$3.59 billion in FY2020 (+27% YoY). To the Wall Street analysts who attended a private briefing on Tuesday at the event, the company reiterated its guidance of reaching long-

term operating margins of 25 percent, a rate that it is already achieving in its HCM segment.

While the company continues to be successful with upper-mid and large enterprises, its customer success with very large enterprises is especially impressive – 40 percent of the F500, and 50 percent of the F50 – with 70 percent “live.” This is a great sign that customers are spinning up and gaining value quickly.

I’m not quite sure why the company’s stock has gotten so beaten up by Wall Street recently. My read of things is that some of the analysts were surprised that the growth of Workday’s HCM line of business is slowing to 20 percent per year. Yet for most of us, this was old news – as the law of large numbers has kicked in. In fact, going forward, it is clear that the company has many growth levers that it can pull to maintain 25-30 percent annual top-line growth for the foreseeable future. This includes international expansion, new growth opportunities in finance, planning, analytics, procurement and learning, and the bevy of new products being introduced including Skills Cloud, People Analytics, Discovery Boards, Workday Credentials, Journal Insights, Accounting Center and its evolving Workday Cloud Platform. While I don’t have room in this blog to focus on all of these, some are highlighted below.

Machine Learning – Now Core

Only a couple of years ago, Workday envisioned its emerging machine learning capabilities as a series of monetizable off-the-shelf functional solutions. However, Workday quickly realized that machine learning would need to become a fundamental underpinning for all of its offerings – and embedded in virtually everything it does.

Across the board, Workday has worked hard to leverage machine learning and broad-based data analytics across the product portfolio. A sampling of key announcements at Rising included:

- Workday People Analytics – built on PRISM Analytics, it delivers natural language-based insights, trends, patterns and organizational anomalies. Will bring a similar capability to Financial Management and Planning over time.
- Skills Insights – leveraging Workday's new Skills Cloud, provides an automated way to assess individual and company-wide skills information, strengths and gaps.
- Discovery Board – leveraging the data-discovery technology in PRISM Analytics, timesaving drag-and-drop discovery capability to create reports and analysis.
- Journal Insights – uses machine learning to surface journal entry exceptions and anomalies as they occur, which not only helps improve

accuracy, but saves time including helping to shorten the close cycle.

- Workday Accounting Center – provides ability to take high-volume data from operational systems and run them through Workday’s accounting rules-engine, transforming business events into journal entries. I would look for this offering to evolve over time, as it moves toward becoming a fully transparent audit trail. If this is the case, it could become a unique and differentiated value prop in the market.

Workday is moving fast to fundamentally alter its value proposition for customers and prospects alike. The pace of change is rapid. Some customers will have a hard time keeping up. Among the more than a dozen company execs that I had a chance to sit and chat with at the event, few were taking advantage of Workday’s powerful new machine learning capabilities and vision yet. Helping customers understand the value through evolved messaging concerning how they can easily and effectively leverage these new tools and capabilities will be important for the company to maintain its momentum.

Adaptive Insights

I had a chance to sit with some of the leadership from the Adaptive Insights team pre-conference and was encouraged to hear about their continued progress. The unit has added more than 700 customers since the

acquisition (now totaling 4,500), with 1,000 or more customers in the sweet spot to potentially become broader Workday customers over time.

The unit has made a lot of progress integrating with Workday, across many dimensions, while still maintaining a “separate from” go-to-market positioning and messaging. Users now have unified identify management across both platforms, and seamless data and metadata integration. In the upcoming release, customers will be able to write data back to Workday (across both Financial Management and HCM), with future releases providing even more seamless integration, and a UI refresh that will bring the look and feel of the two platforms closer together.

Adaptive is quickly expanding its functional footprint, with evolved messaging around the “Intelligent Enterprise” and a vision that it can become the enterprise-wide planning cockpit. This repositioning started well before the acquisition, but it clearly has picked up steam over the past year – as the business unit broadens its strategy to encompass not only financial planning, but other key functional domains such as human resources, sales and operational planning.

As with the rest of the Workday product portfolio, machine learning is front and center, with Adaptive delivering anomaly detection capabilities in the short-run, and a vision to leverage machine learning

in scenario planning in the mid- to long-term.

While Adaptive needs to make sure that it continues to deliver value to its large installed FP&A customer base, this broader repositioning is critically important if it is going to succeed against planning competitors such as Anaplan, which is increasingly nipping at its heels.

From several one-on-one customer interactions, I got the sense that receptivity to its Workforce Planning offering has been strong, with several current HCM customers and prospects considering it. On the other hand, most of the customers I spoke to were not yet aware how they would use Adaptive's emerging machine learning capabilities.

Financial Management Update

Workday is making a lot of progress with its Financial Management suite. In fact, the offering is becoming a key growth engine for the company. I was pleasantly surprised to hear that 450 of its 725 Financial Management customers are now live. Workday has worked hard to evolve its vision, messaging and value proposition, in regard to supporting customers growing demand for insight and action – an inversion of the traditional pyramid of effort and responsibility that

was previously weighted toward transaction processing.



I was also glad to see a continued focus on going global, and progress in regard to fleshing out and streamlining core financial management workflows, especially around procure-to-pay, supplier invoice automation, stock-to-replenish, contract-to-cash, and the like.

As noted above, Workday signaled that machine learning will be front and central in Financial Management, as it pursues the triad of intelligent automation, augmented analytics, and continuous insight, guidance and recommendations. Its vision for applying machine learning to help shorten the close process looks very promising indeed.

While Workday is having success growing its Financial Management customer base, I did run into two very, very large prospects (one an existing HCM customer, one not yet a Workday customer) who were still cautious about Workday's ability to support them. The issues for both had to do with their large size and global reach, so it appears that Workday still has some work to do to succeed with the F100.

Procurement Now on the Map

I was glad to learn that Workday is now breaking out Procurement as a separate product line from Financial Management – and positioning it as a growth business. The company has already fleshed out a significant amount of functionality in this area over time, especially around inventory management. However, more importantly, breaking it out should help the line of business get more internal funding to grow and expand, as I view this as a significant upside opportunity and growth engine for the company over the next five years.

No doubt, in the short-run, Workday will likely leverage key partners to help it round out a broader spend management / strategic sourcing positioning. As CEO Bhusri noted, the firm will “need to get into other areas such as contracts” – as customers are pushing Workday in this direction. Bhusri also shared that “procurement is a natural place to build a marketplace – but that is a bit early for us now.”

So the game is on, with yet another key battleground to emerge. While Workday will continue to build and partner, I would not be surprised by an acquisition or two, especially if it wants to accelerate growth in the mid-term.

Sage Intacct: The Momentum Continues

The last week of September, I attended Sage Intacct's annual Analyst / Influencer event in Healdsburg, CA. While the red wines of Sonoma County were no doubt inspiring prior to and after the full-day briefing, I walked away from the event convinced that Sage's acquisition of Intacct two years ago continues to be on track and delivering solid value for customers and parent company Sage alike.

Business Update

Prior to our arrival, the analysts attending were notified of several key leadership changes at the unit and company. Among the many shifts are:

- Rob Reid, formerly Intacct CEO, is now Sage Chairman of Sage Midmarket Solutions (that includes both Sage Intacct and Sage People).
- Marc Linden, formerly CFO for the Sage Intacct unit was promoted to EVP, Sage Intacct, now overseeing not only Business Ops and Finance, but also leading the Marketing, Product and Engineering group.
- Aaron Harris, formerly CTO of the Sage Intacct

unit is now CTO of Sage reporting to Sage CEO Steve Hare.

With two former senior Intacct leaders now on Sage's Executive Committee, this is a clear signal that the acquisition of Intacct is having a major (positive) impact on the company. As highlighted in my blog from a year ago (see [Sage Intacct: Acquisition On Track – 31Oct2018](#)), virtually the entire leadership team (and most of the employees) remain on board post acquisition – another great sign of successful integration.

While not explicitly sharing detailed financials, it was our sense that the strong momentum that the unit experienced last year post acquisition has been continued through 2019. Based on our guestimates of Sage Intacct's size last year, and its continued success, McNee Associates would not be surprised if the business unit reaches or exceeds \$200 million in revenue within the next six-to-twelve months, with margins continuing to expand.

The unit continues to be largely run as an independent business unit, although there is significant cross-sharing of enabling technology innovation across the company, both into and from Sage Intacct.

Sage Intacct's partners continue to be a huge part of its success. I really liked their focus on quality relationships over quantity of partners. In total, Sage Intacct now has 120+ VAR partners, 30 of which

are on the top 100 list. While its' relationship with the AICPA continues deliver big results, it now has 297 partners in its Sage Intacct Accounting Program (SIAP), and 165 direct sales reps. Six of its top 12 partners are CPA firms. Adding up all of these direct and indirect channel resources helps put more than 2,000 people on the street for Sage Intacct. Impressive indeed.

Evolving Product Focus

Sage Intacct is clearly moving beyond its roots as a best-of-breed cloud accounting / ERP solution for small and mid-size firms. Responding to changing market demand, Sage Intacct is now beginning to provide a broader suite of (increasingly integrated) tools, delivered both by Sage and by key partners. This includes Sage People, the company's Cloud HR and people management system (deployed on Salesforce), and its fast-growing SMB-targeted FP&A budgeting and planning tool launched last year.

Aaron Harris shared some insights around current and future investments in regard to Sage's significant firm-wide commitments around AI and analytics. This has included several smaller tuck-in acquisitions which has helped bring in key talent to the organization. In regard to Sage Intacct, its AI focus seems to be around anomaly detection and predictive billing in the short run; however, there appears to be a number of initiatives in the pipeline as it moves

toward an evolved positioning around the “Intelligent Organization.”

International Expansion and Micro-Verticals Drive GTM

While this started some time ago, the business unit is focusing its going-to-market around targeted micro-verticals and expanding its international footprint. Whereas stand-alone Intacct was an almost exclusive a US-focused business, Sage Intacct is now investing heavily to grow its business internationally, initially targeting the UK and Australia. They have developed specific offerings that are fully compliant at the country level (in regard to tax, banking, payments, statutory reporting et al), and are providing local data residency.

It was fascinating to hear about the extensive research that they do to help identify micro-verticals to target. Greater than 75 percent of new business is now coming from micro-verticals, versus more horizontally focused marketing initiatives.

In conclusion, I walked away with a continuing sense that this has been one of the more successful application acquisitions (along with Adaptive Insights by Workday) over the past couple of years. No doubt, challenges exist, especially from a range of competitors fighting fiercely for cloud ERP market

share. We hope Sage puts some marketing muscle behind its new FP&A offering in particular, as this looks like an especially ripe opportunity.

Microsoft and AWS Outpacing the Competition

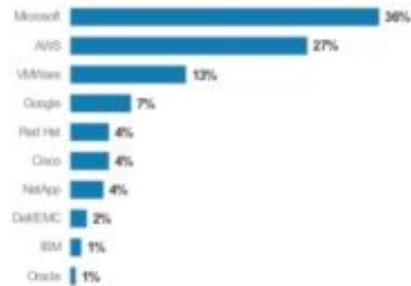
With industrial-strength cloud platforms and hybrid cloud architectures fast becoming a reality, enterprises are now beginning to put plans in place to shut down their data centers, and migrate the vast majority of their legacy application workloads to the cloud. While the market for infrastructure-as-a-service offerings has long been crowded with a bevy of options to choose from, it is becoming clear that Amazon Web Services (AWS) and Microsoft Azure are becoming the dominant choice for the vast majority of CIOs and enterprise leaders.

Research just published by Morgan Stanley shows just how strong this momentum is. Data from their most recent quarterly CIO survey indicates that Microsoft

and AWS remain at the top of the heap as it concerns vendor preference for managing hybrid cloud environments (see Exhibit 1).

Exhibit 1: Microsoft Maintains Lead as Best Positioned in Hybrid Cloud

Vendors Preferred for Managing Hybrid Cloud Environment



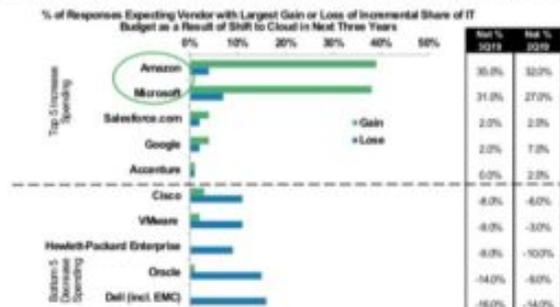
Source: AlphaWise, Morgan Stanley Research, n=100 (US and EU data)

In yet another chart, the research shows just how dominant these two providers are becoming in regards to IT spend going forward. Exhibit 5 focuses on which vendors will gain or lose IT Budget share as a result of the shift to the cloud over the next three years.

As you can see, both AWS and Microsoft Azure are blowing the field away as providers who will gain share over this time period, while providers such as Cisco, VMware, HPE, Oracle and Dell will no doubt experience significant share loss. This is especially relevant given the fact that many enterprise leaders are now hoping to get out of the data center business, and quickly migrate production / mission critical workloads to the cloud.

Morgan Stanley | RESEARCH

Exhibit 5: As workloads shift to the cloud, Amazon and Microsoft remain best positioned to gain incremental percentage of IT budgets over the next three years



Source: AlphaWise, Morgan Stanley Research, n=100 (US and EU data)

Other key insights from the research include:

- CIOs anticipate IT Budget growth to decline from 4.4% in 2019 to 3.4% in 2020, as the economy softens up a bit.
- With the shift to the cloud, Software will continue to grow the fastest among the major categories of IT spend (over Services, Comms and Hardware), although similar to overall IT Budget growth, Software growth will slow to 3.7% in 2020 from 4.7% in 2019.
- The leading spending priorities / investment themes continue to be cloud computing, AI / ML, analytics and digital transformation – all of which are heavily Software-focused.

This research very much supports recent field checks that I have been conducting at various industry events this year. One of my favorite things to do at vendor conferences I am invited to is to sit down wherever lunch is being served, and innocently chat-up senior IT and business leaders sitting nearby. Most are eager to share their experience with the vendor in question, as well as their key priorities and investment plans going forward at a high level.

Many of my most recent discussions have focused on the rapid migration of traditional production workloads to the cloud, in addition to the deployment of new apps and workloads built around next-gen analytics, and AI / ML capabilities. Next week, I head to Workday

Rising in Orlando and hope to do just that.

Migrating Complex Enterprise Workloads – A Webinar

I recently participated in a webinar with Velocity Technology Solutions and AWS focused on best practices and lessons learned around migrating complex enterprise workloads to the Cloud. I thought readers might enjoy a listen. Its roughly 30 minutes long.

Here's a link:
<https://info.velocitycloud.com/webinar/data-center-migration>

Adaptive Live 2019: All Systems Go



Source: Adaptive Insights

Last week, I spent several days at Adaptive Live 2019 in Las Vegas. Overall, I was very impressed with Adaptive Insights evolution and focus, post-acquisition, as it continues to support existing customers while quickly aligning to Workday's broader technology and go-to-market strategy.

Even though Adaptive launched its' Sales Planning and Workforce Planning offerings this past year, not surprisingly ninety percent of the 1,600+ conference attendees were there to celebrate the firm's well-respected Financial Planning heritage and tools.

The event had a number of useful customer panels, and guest-speaker keynotes. For me, however, the highlight of the event was spending time with the leadership team in a series of small group analyst briefings, as

well as hearing what's coming next.

For some time now, I've been very impressed with the team that Tom Bogan assembled after becoming CEO in early 2015. This includes, but is not limited to, Bhaskar Himatsingka, Adaptive's Chief Product Officer, who has done a great job laying the groundwork over the past couple of years for what could potentially be some game changing analytic offerings.

In July 2018, just prior to its aborted IPO, Adaptive announced that it had fundamentally rearchitected its planning, reporting and analytics engine, leveraging what it called "Elastic Hypercube Technology." Essentially, this new approach provides for unlimited dimensions, dimension values and versions – and does so in a manner that is highly efficient (especially in sparse data scenarios).

A year later, Bhaskar shared that virtually all customers are now on this platform – with many leveraging the new hypercubes at significant scale. While the new platform provides a significant improvement in performance, it also sets the stage for Adaptive to layer in a range of artificial intelligence (AI) and advanced machine learning (ML) technologies, both of which will likely help transform the Finance function over the next decade.

AI and ML Initiatives

Bhaskar highlighted several key initiatives in what Adaptive is calling its “Intelligent Planning Roadmap.” In the short-run, the focus appears to be around automating often mundane processes – such as its soon to be released “Anomaly Detection” offering. Mid-term, the firm emphasized that it will also focus on more strategic initiatives such as the development of “Augmented Analytics” – which, I would presume, could be a basket of capabilities that harnesses data and predictive analytics, supporting and enhancing, rather than replacing, work activity.

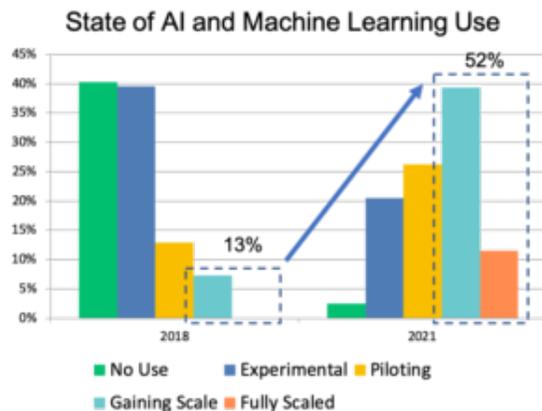
It will be interesting to see how the new Data Access Layer that Workday has been developing will not only connect all three of its engines (Workday’s core in-memory database, Prism and the Adaptive hypercube) – but also support its broader ML plans (see [Workday Innovation Summit: Key Takeaways](#)).

Based on a series of one-on-one side discussions with nearly a dozen attendees (both existing customers and some prospects), it appears that Adaptive is poised for continued growth – not only organically within its own suite of offerings, but some cross-sell into the broader HCM and Financial Management offerings of its parent Workday.

Emerging Skills Crisis in Finance Real

I walked away from the event even more convinced that Finance is in for a significant restructuring – and we are not talking decades away. While yesteryear’s layering of new, more strategic roles and responsibilities will no doubt continue to have a transformative impact – AI-driven process automation and the emergence of ML-led workflow augmentations will demand a new, more analytics-focused workforce. The coming skills crisis in Finance is real.

ML and AI Signposts



Source; McNee Associates, 2018, N=265

I've been attending a number of industry events recently that squarely position machine learning (ML) and artificial intelligence on the forefront of change. Last year, McNee Associates conducted original research with 265 senior business and IT executives in the US, Europe and Asia, to get their sense of the shifts that are occurring.

As the graphic highlights, the use of AI and ML is projected to grow rapidly and broadly over the next couple of years. Our research indicates that 52 percent of executives believe that their firms will be "gaining scale" or "fully scaled" in their use of AI and ML by 2021, up from only 13 percent last year. Having conducted similar research on next-gen technologies over the years, *the slope of change here is significant.*

Across the entire spectrum of cloud infrastructure and apps – from vendors such as SAP, Service Now, AWS, Workday, IBM and others – what is clear is that ML and AI are no longer futuristic technologies, but in the here and now. The range and ways that AI and ML are being imbedded into solutions is vast, and often times largely invisible to the ultimate end-user.

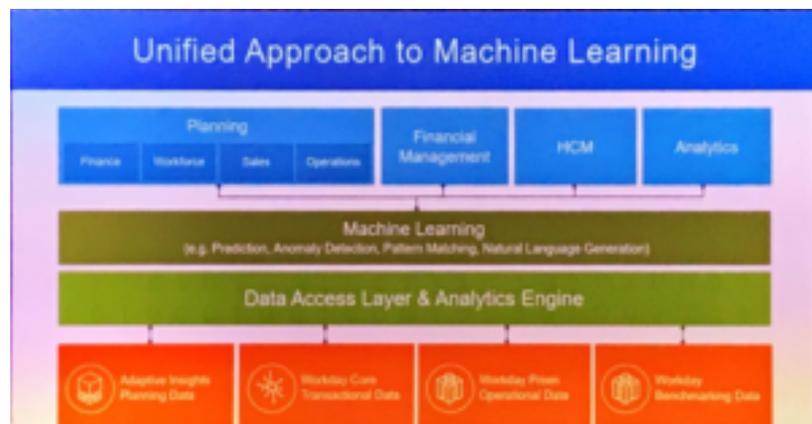
Additional insights from the research:

- 60 percent of execs believe that AI and ML will fundamentally change their industries.

- Almost 34 percent of execs believe that AI and ML will result in significant job losses. Interestingly, US-based IT and business leaders are more optimistic than their colleagues in Europe and Asia (20 vs. 46 percent). This may suggest that they believe these technologies will play more of a supportive role, augmenting existing skills, or that significant retraining can occur for those displaced vs. wholesale layoffs.
 - RPA led our list of AI technologies in use, followed by Chat Bots, Expert (knowledge-based) Systems, Machine Learning, and Virtual Assistants, among others.
 - Predictive Analytics led the list of top technologies / trends / capabilities that will have the biggest business impact through 2021, followed by Cyber Security and Digitization of Products and Services.
 - As expected (based on previous research conducted in this space), *Company Culture* and *Organizational Willingness to Change* topped the list of obstacles / challenges IT organization's face to successfully navigate the emerging technology-enabled business landscape.
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Workday Innovation Summit: Key Takeaways

A little over a week ago, I traveled west to participate in Workday's annual industry analyst event – now appropriately rebranded the *Workday Innovation Summit*. As has been the tradition now for several years, the event was held at the beautiful Cavallo Point Lodge, in Sausalito, CA, just below the Golden Gate Bridge.



Source: Workday

While much of the day was spent focusing on Workday's continued innovation across its HCM and Finance application suites, growing analytics and Cloud Platform capabilities, and AWS support – the theme of extracting greater and greater value for customers, and augmenting executive decision making through machine learning was central to the day. To this end, Aneel Bhusri, Workday's CEO helped kick-off and frame

the day by emphasizing that *“machine learning is the fundamental technology of the future.”*

The good news is that Workday already has a powerful and unified platform that supports many of the key threads of 21st century architecture. Importantly, I came away with a sense that Workday is taking a very realistic approach to their machine learning (ML) investments – focusing on augmenting the user experience, rather than as a replacement – as it builds out a portfolio of algorithm’s that can be applied to a range of business use cases. I’ve just loved the Phil Mickelson [“Business Caddy”](#) ads Workday has been running for the past 6-9 months that emphasize, in a non-technical way, machine learning as *supportive* to executive decision making.

Fundamental to the successful execution of this strategy has been a focus on extracting more and more value from the data that Workday already manages, as well as helping it increasingly become a hub that leverages a broad range of enterprise and external data.

I really liked what I saw in regard to the emergence of a single data access layer and analytics engine (see chart) that will help coordinate all of the data (and machine learning services) across its now extended family of products. *While the initial use-case will no doubt bring Adaptive Insights into the “Power of One,” the longer-term implications of*

Workday's vision for a single reporting architecture could help the company more quickly integrate potential future (functional) acquisitions as well.

I look forward to learning more about this initiative at the Adaptive Insights event in Las Vegas later this month. In closing, I'd like to share how impressed I always am by how well-run this event is, and how open and frank the entire Workday team is in both sharing and receiving feedback about its future plans. This year was no exception. Well done.

Fresh Beginnings

After a little more than a year on the sidelines, I'm pleased to share that McNee Associates will be much more active on a go-forward basis now that we've turned the corner into 2019 – as I am now beyond any constraints in regard to non-competes. I'm especially excited about re-engaging with friends and colleagues throughout our industry, as we are in the midst of so many important disruptive trends and emerging technologies, many of which are driving fantastic

business innovation.



In addition to continuing to publish the blog (see topics / themes below), I'm delighted to share that McNee Associates will be providing a range of consulting services for clients. For technology providers, this will focus primarily around Market Strategy and Go-to-Market consulting services, as well as custom research programs that support both internal planning and strategy development, as well as external thought-leadership that can be used to drive business development / awareness with senior business and IT execs. For technology buyers, this will focus primarily around leadership workshops and technology strategy development.

I am excited about participating in a number of industry conferences, events and analyst briefings this year, across the target segments that I'll be covering. First up is Salesforce's Analyst Summit late next week in San Fran, to be followed by a number of additional events this Spring. If you are a provider who would like to invite me to your annual conference, or Analyst Summit – just reach out via email or phone (listed on [Contact Us](#)), or via [LinkedIn](#).

As noted, I'll be ramping up my blogging, with a plan to publish a couple of times per month, although we may invite some guest bloggers as well. My blogging will primarily focus on the continued evolution of enterprise applications and infrastructure, and how enterprise data is increasingly becoming a key weapon framing business strategy. This includes the range of emerging analytic tools and technologies that are reshaping how we engage with customers, plan and target new offerings, optimize operations as well as develop new monetization strategies.

Find below a slightly updated list of 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
- Machine Learning
- Next-Gen Technology-Enabled Products / Services
- The New Finance

I very much look forward to the adventures 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!

Best,

Bill McNee
Managing Principal