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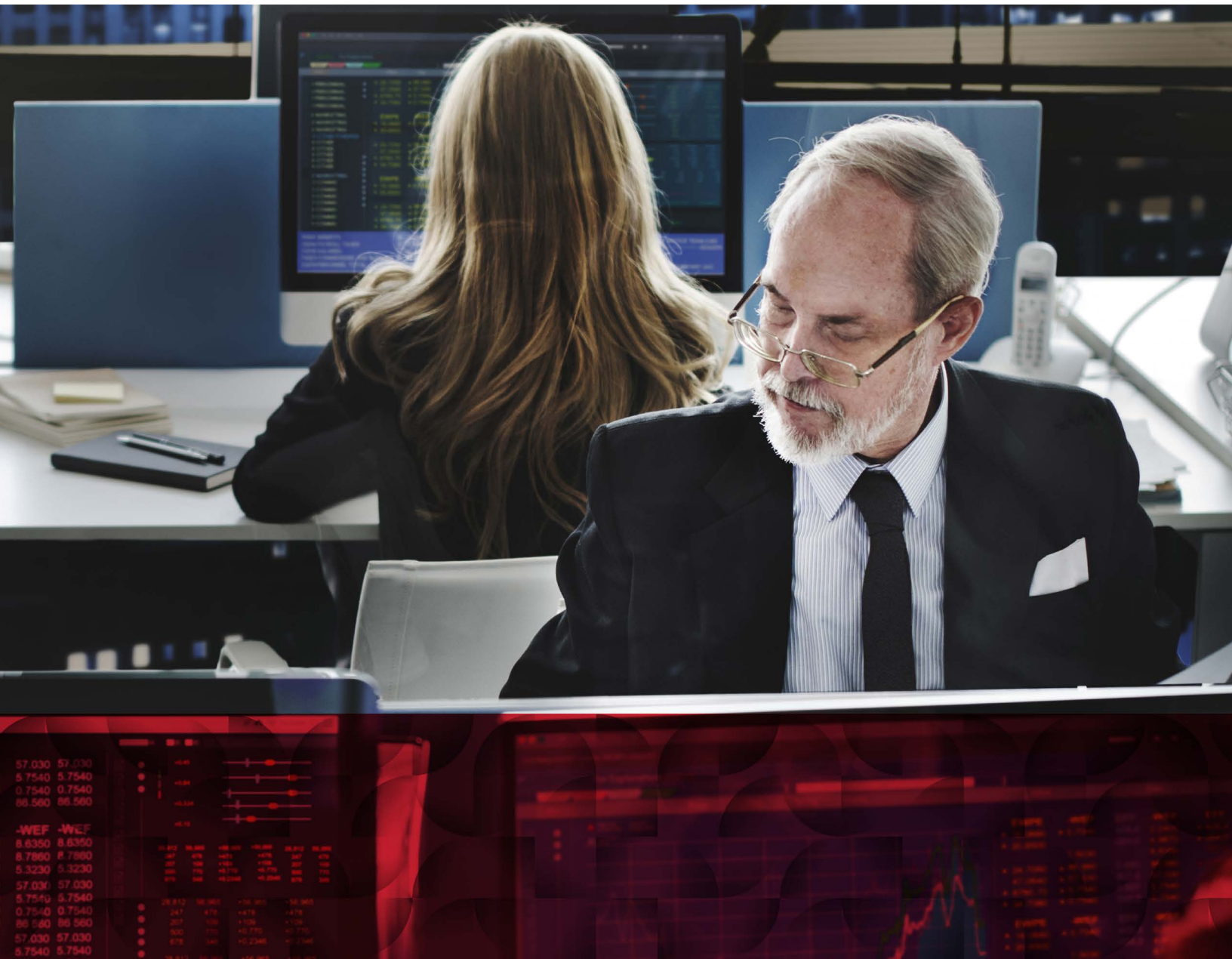
Strategies to Accelerate AI in the Enterprise

A Framework for Success

Doug Hillary



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Doug provides advisory services to help advance Fractal Analytics' capabilities, services, and offerings to empower enterprise clients.

Doug held various leadership roles at Dell for more than 19 years. In his most recent role, he was responsible for providing global data, reporting, and analytics services to support Dell's sales, marketing, finance, services, e-commerce, and operations business units. He also partnered with IT to launch Dell's first enterprise-wide big data business intelligence solution to create a platform that significantly improved enterprise level descriptive analytics while enabling and accelerating predictive analytics at global scale.

In his prior role at Dell, Doug was the Vice President of Dell Services, where he was responsible for delivering data center and desktop managed services and outsourcing engagements for Dell customers worldwide. His responsibilities included ownership for a $1.5B P&L, solution design and delivery, and global leadership of over 6,000 professionals. Prior to that, he held several senior executive roles in Dell Services where he led growth and scaling of Dell's enterprise and global service capabilities to serve customers in all segments and regions. Throughout his tenure at Dell, Doug was also a champion and leader for diversity, STEM education for girls, and an advocate for women in technology leadership.

Doug leverages his passion, knowledge, and experience to help Fractal Analytics and clients accelerate the use, adoption, and value creation with data, analytics, and AI in the enterprise.

Artificial intelligence (AI) has limitless potential, and for most enterprises, we are only scratching the surface of the potential opportunity. There are many examples of enterprises embracing artificial intelligence to predict buying patterns, understand customer behavior, create personalization, help in genome research, optimize supply chains, conduct financial trading, or recommend movies. For these companies, artificial intelligence has already become a competitive differentiator.

However, there are many more companies who are trying to figure out the reality vs. the hype and how to either begin or accelerate their own journey. For these companies, it's still a significant challenge if not a daunting undertaking to begin the AI journey. Many firms also have concerns over technology selection, cost, integration, privacy, security, and regulatory challenges.

These challenges are not unique to AI. They are many of the same challenges that have existed in the widespread effort to adopt, use, and benefit from analytics and machine learning (ML) initiatives. Therefore, given these challenges, how can you start the journey if you haven't already done so?

The strategies discussed in this white paper are intended to provide guidance and suggestions for organizations and enterprises who are navigating through this journey. However, these strategies can also be applied by leaders of business units, divisions, or other entities of larger organizations who wish to adopt or accelerate their analytics and AI initiatives.

1. Gain C-Suite Sponsorship

2. Coordinate Your Enterprise Strategy and Investments

3. Establish Data Governance and Management

4. Solve Enterprise-Level Business Problems

5. Build, Scale, and Partner for Talent and Access to Intellectual Property

6. Organize for Success

7. Create and Strengthen a Culture of Collaboration and Experimentation

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1.

Gain C-Suite Sponsorship

To ensure success in adopting or accelerating analytics or AI across your enterprise, it's important to provide active sponsorship from all C-suite leaders. These leaders must make cultural adoption a priority to drive progress, and align your assets, investments, and plans to your corporate strategy.

Executive buy-in is key to success.

Executive sponsorship and buy-in is vital for success. The more engaged and bought-in the C-suite is for AI, the better the chance of success in implementing and adopting Analytics and Artificial Intelligence across the enterprise. Ensure that all senior executives engage, actively participate, and "buy-in" to the initiative. It is even more critical as technology, data, complexity, risk, and demand increase. According to McKinsey Global Institute, "strong executive leadership goes hand-in-hand with stronger AI adoption. Respondents from firms that have successfully deployed an AI technology at scale tended to rate C-suite support nearly twice as high as those from companies that had not adopted AI technology."[1]

It's not just the job of a CDO, CIO, or CAO—all need to buy-in.

It's not just the job of a single function, the CDO, CIO, and/or CAO if your firm has adopted these roles. If there is no business leader or function that is chartered (and empowered) to spearhead your AI efforts, then you are at risk of falling behind your competitors. Therefore, as a critical first step it is important to establish clear executive ownership for data and analytics (e.g., a CDO and/or CAO). Ensure that the functional leader and their teams are staffed at an appropriate level to drive the transformation strategy and change management needed throughout the enterprise in order to be successful. One-off, independent, or silos of effort will not succeed and may impede progress due to competing strategies, investments or performance objectives.

Ensure there is active and engaged sponsorship from all C-suite leaders.

1: McKinsey Global Institute, "Artificial Intelligence: The next digital frontier?", June 2017

Align assets, investments, and plans to enable your corporate strategy.

It is important that you are able to drive strategy, resources, investment, and set the tone for the organization and cultural adoption. This includes active engagement and support for BI/AI strategy, assets (both IT and human), investments, and cultural adoption. By contrast, if budget for AI projects, initiatives and/or talent are disbursed throughout the enterprise, or not aligned to enterprise priorities, it will impede progress. Therefore, once you establish commitment at the C-suite level and formalize your strategy, you should also determine how you wish to manage and control your budget and capital throughout the enterprise, particularly if your current landscape consists of competing internal (or external) analytics or AI efforts.

This is not to suggest analytics or AI budgets should not exist throughout the organization but if left unmanaged or not aligned to your enterprise strategy, then the end result may be sub-optimized use of budget, capital and resources, or worse, competing solutions and efforts. The key is to identify the budget and resources, and align them towards your desired outcomes.

Make cultural adoption a priority to remove barriers, obstacles, or blockers.

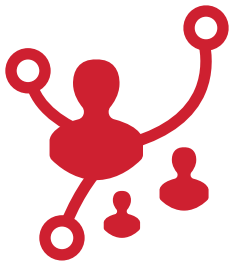
Cultural adoption is perhaps the biggest single challenge and requires the most tops-down leadership to define, communicate, and reinforce the vision/strategy. Be sure to hold the organizational leaders accountable to execute the changes required to drive the transformation. Executive leadership needs to remove barriers, obstacles, or even blockers if required to increase the chance for success.

Champion and communicate wins and progress.

Champion and communicate wins and progress to the broader organization. This will help reinforce the commitment from the top as well as garner support for the transformation. Reward and recognize champions to reinforce and support the behaviors and leadership you need for success. Conversely, a lack of communication and engagement from the top will slow or delay progress by reinforcing that “business as usual” is acceptable.

2.

Coordinate Your Enterprise Strategy and Investments



Make sure you drive strategy and investments that align the C-suite, business, IT, data, and analytics functions or organizations. Success also requires a tops-down, coordinated strategy for IT investments to create or optimize big data solutions, data storage, apps, BI tools, and platform integration.

Have a strategy, plan, and roadmap that aligns business, IT, and analytics.

You need to have an integrated strategy, plan, and roadmap that aligns business, IT, and analytics. This could take the form of a strategic plan and three-year roadmap to align and drive investments in IT, processes, and talent. This roadmap should include your strategy (and timing) for investments in the entire "BI stack" including data storage and governance, big data technology, BI, analytics, and visualization tools and solutions. Without an integrated plan and roadmap, it will be difficult to yield an appropriate ROI on your IT investments.

Create a strong Business-IT partnership to promote progress.

There must be collaboration by all key stakeholders and functions to ensure enterprise benefits. Business-IT partnership is vital for success. It's not purely IT's role to implement big data, analytics AI projects, or fix "data problems". Business leaders must take ownership and responsibility to partner with IT and other functions to drive analytics and AI initiatives. Silos are the enemy of progress.

Big data is part of the "BI stack" and overall solution—not the end- state.

Investing in big data architecture is critical to success, particularly given the explosion in data and data sources like video, chat, Internet of Things, and sensor technology—largely "unstructured" data which complements most legacy "structured" data sources like CRM and ERP systems. However, big data solutions should be considered part of the strategy for the "BI stack" of technology from data ingestion, storage, discovery, modeling, analytics/ML, visualization, and mobility.

Big data can provide scalable, fast, and responsive BI and AI solutions to manage both structured and unstructured data. In order to maximize success of your investment in big data, it is equally important to determine what data you will store and make available through an enterprise data warehouse, data lake(s), and high performance memory-resident appliances in order to provide fast, responsive solutions for the business. As discussed later in this white paper, this also requires an effective enterprise data governance capability.

On top of this architecture, you also need to consider what tools are required to enable data exploration and visualization by the business and end-users. There are a number of compelling solutions currently available, and many more being introduced so it is important to strategically assess these solutions against your enterprise requirements and rationalize the tools you require for the given business need or use case. If you have too many BI tools, it can result in inefficiencies, confusion, competition, and a drag on productivity. Ultimately, you may choose several depending on your needs, but the key is not to ignore BI analytics and visualization tools as part of your overall BI architecture strategy and roadmap.

Create or scale a BI system that provides a platform for innovation, analytics, and AI.

Building an enterprise-wide business intelligence or business management system can create a robust big data platform for not only descriptive analytics and reporting, but an effective and fast way to implement predictive analytics solutions, ML, and AI at scale. Build once and share for the benefit of the enterprise is much more effective than building isolated solutions throughout the enterprise.

A business management system works well when combined with effective data governance policies and practices governing what data is available in data warehouse(s)/ data lakes, for whom, and how it can be accessed and utilized. Such a platform can actually accelerate innovation and AI by allowing faster identification of end-user best practices or ideas, rapid prototyping, replication, and deployment of best practices, algorithms, and solutions.

An enterprise-wide BI or business management system can accelerate analytics or AI in the enterprise.

On top of this platform, you can readily apply analytics and visualization solutions to drive a scalable, fast, single-source-of-truth solution for the enterprise. It also accelerates analytical discovery by the business since it represents a large volume of trusted, normalized, and relevant data which can be easily accessed and analyzed by the business to determine drivers for success or reasons for under-performance. Ultimately, this will lead to improved ways of evaluating business performance, or introduction of predictive measures and KPIs for success. Therefore, in the context of AI, such a platform enables and accelerates the ability to leverage ML and AI faster and more broadly across the enterprise. It is essentially a platform for analytics and AI innovation.

Establish the ability to do rapid prototyping with business and IT teams.

Utilize a prototyping capability or data lab to allow the business to perform rapid testing of new theories, algorithms, or models prior to production. Speed is essential, but so is scalability, security, and maintainability. Rapid prototyping can not only speed solutions to the business, but it can also raise confidence in the final product before it is released which accelerates adoption. You may also wish to create a cross-functional task force encompassing key business leaders with responsibility for chosen use case(s), data, analytics capability, IT, and IP partner(s) to collaborate on critical initiatives utilizing rapid prototyping and agile methodology to quickly move from idea to testing and action. This would also allow you to iterate quickly in enhancements to improve the quality of the product or solution before going into production.

Agile methodology can help accelerate the development of analytics and AI solutions.

Agile methodology also needs to be embraced to develop analytics and AI solutions at both speed and scale. Traditional IT development projects take too long, are too rigid, and often do not meet the needs of the business, which do not remain static. You need to have a way to iterate the development process and deliver more frequent “wins” to the business. Otherwise, they will look for solutions elsewhere, which can result in proliferation of “shadow IT”.

Through agile methodology, the business is allowed direct and immediate access to all data within the data warehouse or data lake which precludes the need to acquire, replicate, or export the data into offline tools or systems (in effect creating "shadow IT"). This also allows the business users to shift efforts towards analytics insights and action while ensuring compliance to enterprise data security, privacy, regulatory, risk, and scale considerations.

Data integration, harmonization, and governance are critical to success.

Data integration and consolidation into data warehouses and data lakes are critical enablers for success. Collecting, storing, and providing data is the lifeblood of analytics and AI. Fragmented, "shadow" IT (data disbursed throughout the enterprise in various sources, which are often unsupported and unmanaged) is a significant drag on speed, productivity, and ability to implement enterprise-wide AI solutions. Beyond data collection and integration, data governance is essential to make sense of the data, improve (and maintain) data quality, and manage the access, use, and distribution of the data to enable the enterprise AI strategy.

Be open to strategic partnerships for creative, breakthrough thinking and IP.

There is significant investment flowing into AI and related fields. Don't miss out on the opportunity to partner with leaders in innovation and IP. Strategic partnerships can provide access to leading edge IP and capabilities. However, scalability, security, and integration challenges can slow adoption. As more investment flows into AI, this will become increasingly important and will require the ability to speed integration through open source, API, or cloud integration tools or platforms.

3.

Establish Data Governance and Management

An enterprise-wide data strategy and governance process is a critical enabler for successful analytics and AI implementation. It's important to recognize how critical, yet challenging, it is to govern and manage data across the enterprise. An effective data governance strategy will help you understand where your data is, what is important, how you need to manage it, and how (and whom) you want to allow access to the data, and then how it will be used.

Data strategy, governance, and management is mandatory for success.

Given the proliferation in data, data sources, and increased end-user demand, along with more intuitive and pervasive "self-service" tools and solutions, the need to have an effective data governance program is becoming even more critical. Without data governance, all of this data will end up in a data warehouse or data lakes and become "data swamps".

Said another way, proliferation of data and uncontrolled user access can provide full freedom for business users. However, for an enterprise, it can result in confusion, duplication, inefficiencies, and distrust. The appearance of moving quickly on analytics or AI projects will mask the fact that enterprises are absorbed in an internal battle over data access and use, and not allocating the critical assets (people, process, technology) to serve a broader purpose—the organization itself, it's customers and shareholders.

Establish or scale out data governance and data stewardship across the enterprise.

If there is a weak or nonexistent data governance process or function, then it is critical to create or endorse an organization chartered to address this challenge with appropriate support from the C-suite. The organization or function(s) should include resources committed to manage and improve data collection, accuracy, and use across all critical business functions. The data governance organization must also define and manage data policies, standards, definitions, and manage data quality in order to support an effective analytics and AI strategy while complying with regulatory or legal requirements, privacy, security and other considerations.

Break down data silos to gain access to the data that is most critical, and decide how you want to balance control vs. speed and flexibility in use of the data.

Be maniacal about managing data quality and invest in the tools and processes to maintain data quality.

Data quality will directly impact the accuracy of the analytics and AI models and output, and the resulting business decisions, so it is critical to have strategy, tools, and resources dedicated to ensure data accuracy and availability in source systems and data warehouse(s)/lakes. If there are data quality issues, don't underestimate the criticality to have a strategy and capability to ensure ongoing data quality once you've corrected or cleaned up the data challenge(s).

Not all data is equal. Determine what data to tightly control, and what data you wish to make available for self-service, discovery and exploration.

Establish the rules, policies, and controls to govern critical data or KPIs, which must be tightly controlled and distributed or published vs. data you will allow for discovery, exploration, and ad-hoc analysis. This may also change over the life of the data, however, these rules must be strategically determined, managed, and controlled.

Not all data is the same, so it is important to determine what you wish to tightly control as a "single source of truth", and to comply with privacy, security, risk, or regulatory demands. What data or KPIs are most critical to make decisions, who needs them, how are they delivered, and who "owns" and produces them are a few key questions that need to be answered. Ironically, although tight compliance and governance sounds restrictive, it can actually accelerate innovation and application of predictive analytics at scale. To carry the illustration a bit further, if you have defined the key measurements you need to successfully manage your enterprise (financial or operational), then how powerful is it if you have standardized, normalized, readily available data that you can use to identify trends, variances, business unit or individual performance (and underlying attributes)? It can be argued that your ability to apply analytics solutions increases significantly, including machine learning and ultimately AI solutions.

In parallel, you also need to understand what you will allow for discovery, experimentation, and analysis by the end-users and business, or where you will allow "multiple versions of the truth". Given the increase in availability of more user-friendly, intuitive analytics and visualization tools, how far will you go to enable "self-service" to create new predictive analytical models or new ways of evaluating the business or creating new business process(es)? Who will you enable, with which datasets, KPIs, and use cases? These are important questions to consider. There is a balance here between being too rigid, yet being too flexible, which underscores the need to have a strategy, organizational capability, process, and adherence to a well-defined data governance model to enable an effective enterprise-wide analytics or AI strategy.

1) Too much flexibility can result in different or competing versions of the truth, which can create debates, confusion, conflict, and a significant drag on productivity.

2) Too much control can result in rigid processes, bureaucracy, slowed or lack of response to the business, and the creation or proliferation of business-led IT solutions ("shadow IT").

As you make these decisions, it's important to have a governance process in place that allows you to implement and manage these decisions, including who gets access to what, how much, and what they can do with the data. There are a growing number of vendors and tools in the marketplace that can help enforce and support these decisions (also referred to as "Metadata Management"), including Informatica, Collibra, DATUM, and Global Data Excellence, to name a few.

Consider creating a Chief Data Officer (CDO) role and function if you haven't done so already.

There is a lot of literature on how to organize data management functions, including the role of the CDO. However, the primary message is you need to have an enterprise-wide strategy and effective governance model managed by a function that has the charter and ability to effectively lead and manage the acquisition, quality, dissemination, and use of the data across the enterprise.

4.

Solve Enterprise-Level Business Problems

Identify specific business problems that you can address. Ensure they are strategic and impactful for the broader benefit of the enterprise vs. department or mid-level business problems. Too often, critical or scarce analytics and data science talent is applied to solve minor challenges, automate reporting, or other mundane tasks. It's vital to align the talented assets and investments to solve critical business problems or opportunities.

The business must lead in the identification and selection of use cases or projects for AI.

Preferably, this should be done by senior executives. Projects or initiatives should be aligned with or enable the corporate strategy. Ideally, the use case or initiative will have a direct and material impact in driving the P&L (cost reduction, top line growth, profitability), better serve customers through reduced cycle time, better quality products and services, and improved customer experience to highlight a few of the most obvious choices.

It must be business-led to ensure commitment and enhance adoption. Depending on where you are in your AI journey, it may be advisable to pursue a "crawl-walk-run" approach where you identify near-term opportunities that may not be as impactful as you may hope (or plan for), but will allow you to test and learn what you are capable of doing, and how to effectively deploy AI. This "roadmap" approach can be a powerful way to build a foundation and rapidly expand your initiatives, and results, as you learn and iteratively improve. I am not suggesting ignoring breakthrough ideas or capabilities, but would suggest focusing on near-term opportunities, building your AI "muscle" in addition to planning for breakthrough capabilities if you are still early in your journey towards adoption.

AI is well suited to optimize internal processes to enhance your operations, improve customer service, or deliver greater financial outcomes for your enterprise.

Ideally, it is a business process that is repeatable, where the business process may be done manually today but can be automated to the point that you can apply machine learning techniques and AI to refine, improve, learn, and strengthen the process. It's also important to approach these problems initially like experiments where you can identify the critical

success factors you want to influence or change and measure the impact of the change in process or hypothesis by implementing a new analytics/ML/AI solution, algorithm, or model. As you do so, you can readily demonstrate the impact of the change in process with agreed-upon measurements, facts, and data which demonstrate the ROI of the solution.

Tie use cases end-to-end, and do not get bogged down in functional silos.

Ensure the business problem or use case is strategic and understand its impact to the bottom line.

Although you may start with a specific use case like sales forecasting or demand management for supply chain, it's important to tie these use cases end-to-end, and do not get bogged down in functional silos. You may need to commence with functional solutions, but the key will be how to tie them "end-to-end" for greatest impact. For example, building an outstanding sales forecast model delivers a lot of value to the corporation, but what if you can tie it to your supply chain demand model?

To provide another illustration, marketing and sales must collaborate on the best use of data and insights to improve sales effectiveness, productivity, and results. Marketing data gleaned from customer browsing history, social media sentiment, or contact information can be shared with sales to provide recommendations and leads for follow-through. If the datasets or analytics solutions are not harmonized or integrated, then these will become disparate data points requiring the end user (sales person) to access multiple sources to seek the information, or they may not get the information at all. As a result, integrating these different datasets into a consolidated solution, recommendation, or set of actions for sales will have a much bigger impact than if they stood alone, or worse, competed for attention. For the sales end user, this means a loss in productivity as well as forcing them to decide what is the most appropriate or effective action to take.

Don't underestimate the importance of process engineering skills.

Most business problems that can be automated need to be defined in an "as-is", "to-be" state where you can apply analytics, ML, and AI solutions to automate, learn, and improve. Experiment and test. Measure before and after. Tweak, modify, and learn.

Process engineering skills are critical. Your organization must have the ability to assess current and proposed future state processes that require change.

For example, how do you perform sales forecasting or demand management today? Is it being done on spreadsheets using different formulas, gut instinct, or other means and then manually rolled up? If so, how can you automate the process, embed that into a tool that you can apply ML and AI to in order to learn, improve, and dramatically increase the outcome? At the root of this, you need to have the ability to do process engineering and ultimately, process redesign in addition to the analytics/AI work.

Embed these new AI-driven solutions into decision-making tools and processes.

It's critical to think about how you can embed these new AI-driven solutions and processes into decision-making or transactional systems. These will yield the greatest impact on the bottom line, customer satisfaction, and productivity. Think about your CRM or sales tools and how you would embed these "recommendations" into your point of quote, transaction, or customer interaction. This can be a powerful differentiator in how you serve customers and how you can improve your P&L.

For illustration, how impactful would it be if you can provide automated recommendations to optimize product configurations or add-on and upsell recommendations at the point of quote or order? Even better, what if these recommendations didn't require human intervention? Ultimately, integrating AI into workplace processes, decision-making, or transactional tools is the key to long-term success. A redesigned end-to-end process with applied machine learning techniques will not only facilitate faster and better decision-making, enhance business performance and customer experience, but the cost to identify, and deliver on these decisions is dramatically reduced over historically manual (or nonexistent) methods.

Personalized recommendations will accelerate end-user acceptance and adoption.

Generic algorithms and models are generally more advantageous over pure "gut instinct" (although some might argue otherwise). However, the more personalized the recommendation, the better. This also suggests that you should think about how your customers or end-users consume information and how you can deliver your analytics/AI solutions in a relevant, intuitive, and adaptive manner. Man-machine interface is becoming increasingly important as the amount of data, and data-driven solutions multiply.

It's not sufficient to deliver large static reports with hundreds of rows of data. The key is how you convert the data into insights and actions for the individual end-user to act upon.

5.

Build, Scale, and Partner for Talent and Access to Intellectual Property

To be successful, it's important to develop, partner, or acquire the critical skills you need. It's well documented that the demand for analytics and data science professionals exceeds the supply of talent, and the gap is increasing.

Ensure you have a strong recruitment process with leading universities and institutions developing analytics talent.

If you have an in-house analytics team, ensure you also have a strong recruitment process and relationships with universities to gain access to critically needed analytics talent. In a highly competitive field like analytics and data science, it goes without saying that you also need to have competitive salaries, benefits, and a well-defined, structured, (and enviable) career path that not only defines upward mobility, but encourages cross-training.

It's impossible to accelerate creation or adoption of AI without the right talent or partnerships with industry leaders and innovators.

Create or leverage talent development programs to build expertise, skills, and scale.

Once you acquire the talent, it's also important to retain the talent and expertise. This means investing in talent retention or development programs that allow you to quickly ramp new hires, provide advanced skills, and mitigate the impact of turnover. Given the high demand, and high attrition of talent in this space, a rigorous talent development program can help reduce turnover while accelerating the use of critical knowledge or skills to be successful – whether "hard" or "soft".

Development programs should also bridge the gap between the "science" (e.g., predictive analytics, machine learning, deep learning) of analytics and data science and the "art". Deep business or domain knowledge is needed to be most successful, or ensure the analyst is embedded in the business. Don't ignore the importance of soft skills like verbal and written communications, including "storytelling". Invest and develop skills in these areas.

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Utilize a knowledge management platform and tools to share models and best practices.

This will help provide faster, proven solutions to end-users and customers. Invest or create knowledge management systems or platforms, and tools to share analytics models, automate data ingestion, etc. This will help build scale in your analytics organization, speed solutions to the business, and reduce "re-work" or duplication. More time can be spent on new techniques, or insights derived from the data.

Build the talent and skills needed in complementary functions to be successful.

Don't overlook the importance of process engineers, IT infrastructure, developers, and project managers. All functions and skills are required in most enterprises to build robust, sustainable AI solutions. If these skills are lacking, it will be difficult to quickly deploy analytics solutions into production.

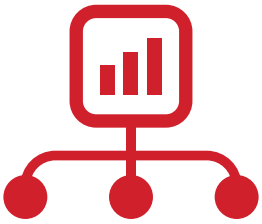
Partner with firms like Fractal Analytics to gain access to critical expertise, skills, and IP.

This will help you extend or complement your in-house capabilities to move faster to meet internal demand. It will help you obtain access to the talent and proven knowledge, skills, and IP solutions necessary to understand the business problem, build the analytics/ML solutions needed to address the business problem, and access leading-edge IP and knowledge from their deep bench of experts and investments in AI. They also have the ability to provide best practices or solutions from other industries or use cases that may accelerate your own efforts. Given the rapid increase in investments in artificial intelligence, partnering with industry thought leaders can also help keep you current on new and emerging technology and IP that can further accelerate your AI initiatives.

6.

Organize for Success

Choosing the right organizational model is also an important factor in accelerating adoption of analytics, machine learning, or AI solutions. There are benefits and drawbacks to choosing a fragmented analytics team vs. one that is centralized in the organization. Consider using a hybrid model to combine the best of both worlds.



Highly dispersed or fragmented analytics talent can create challenges in driving enterprise AI.

If your talent is highly fragmented or staffed in department and/or mid-level functions, it will be extremely difficult to build enterprise-wide solutions. Analytics or AI solutions being developed in fragmented manner may be interesting, "sexy", or possibly breakthrough in some respects, but do they solve the most critical business problems or challenges? Are they aligned or are there competing solutions being developed? Is the work effort strategic, or tactical, and are you leveraging the critical and scarce talent in the most effective manner to achieve your goals? De-centralized analytics organizations may result in some of the following challenges:

1) Excessive focus on depart or tactical objectives, not strategic.

2) Internal competition for funding, tools, talent, and control.

3) Proliferation of BI/Analytics tools or solutions.

4) Limited or inability to apply predictive analytics at scale.

5) Difficult or impossible to move or develop talent across the organization.

On the other hand, highly centralized analytics organizations run the risk of being irrelevant.

By contrast, highly centralized analytics organizations run the risk of being irrelevant or lack the business knowledge to be successful. Centralized analytics teams can provide scale and the ability to quickly understand, share, and leverage best practices, tools, and methodology which are constantly and rapidly evolving. Characteristics of an overly centralized analytics organization may include:

1) Too rigid or slow in delivering analytics/AI solutions to the business.

2) Disproportionate focus on the science of data and analytics vs. the business impact or outcome.

3) Lack of business knowledge resulting in ineffective or irrelevant solutions.

4) May result in increased growth or proliferation in de-centralized analytics talent.

A well-defined and effective organizational model can accelerate the adoption of analytics and AI solutions in the enterprise.

Consider a hybrid model to combine the best of both worlds.

Therefore, whether you build or partner to acquire your analytics expertise, you must carefully consider how to organize your talent in a way that allows for both expertise and scale in the tools, processes, and techniques of analytics and data science (the "science"), yet also provide for close alignment and understanding of the business and business problems that need to be solved (the "art").

A) Analysts or data scientists must be close to, if not embedded in, the businesses they support in order to better understand the business challenges or processes that need to be improved. Don't "throw the challenge over the fence and hope for the best".

B) A model that provides the best of both worlds is the "hybrid" or "hub-and-spoke" model. There are different ways to implement these hybrid models and determine where the resources are placed, and who manages them. Overall, this hybrid approach has many advantages over the decentralized or centralized functional models.

No matter which model you choose, it's ideal to have analytics talent remain close to the business. The more they learn and know about the business, the more effective the solutions will be. Conversely, the more remote (physically, intellectually, organizationally) your analytics talent is from the business, the less successful you will be.

7.

Create and Strengthen a Culture of Collaboration and Experimentation

It's also important to build a culture to collaborate, experiment, and innovate. Build a roadmap that delivers early and frequent "wins", and communicate the progress and wins throughout the enterprise to inform, "de-mystify", and rally support for your AI initiatives.

Remember that AI is a journey.

It's a journey. Be willing to fail, learn quickly, adapt, and test again. The organization will learn. As you do so, collectively the organization will also learn how to better utilize analytics and AI to solve more complex questions or problems, and learn how to be more proactive in applying the solutions and outputs.

Enable collaboration and teamwork.

Provide incentives, KPIs, or metrics to encourage coordination across functions like business, operations, IT, and analytics to work together. Engage the right subject matter experts. AI is not a problem nor solution that is solely in the realm of data scientists or IT. You need the operational, business, and technical expertise to ensure that the analytic outputs solve the business problem or challenge. It requires effective collaboration by business, operations, analytics, and IT experts to solve complex challenges and design, deploy, optimize, and maintain solutions leveraging ML and AI.

Don't underestimate the challenge or importance of cultural acceptance and adoption.

Identify internal champions, thought leaders, and change agents to help drive cultural awareness and adoption.

Identify and build champions or change agents who can help drive the cultural awareness and adoption needed to gain traction. Ensure they are recognized as key leaders and operate at a level or in a function that is strategic enough to make an impact. They are instrumental in achieving and communicating early wins and gaining buy-in from their peers, co-workers, and team members. Champions can also provide honest and frank feedback which can help improve the solutions you deliver which can ultimately accelerate broader adoption.

Build your roadmap to yield early wins and successes to increase confidence and momentum.

Build your projects or roadmap in a manner to yield early wins or successes. This will enhance confidence and demonstrate the value or impact of the investments in big data, analytics, and AI. If you are successful in doing so, you will gain further buy-in from the sponsoring business or executives to invest, move faster, and more broadly if they understand the value and impact to the corporation.

Communicate early wins and successes to provide encouragement and support for the journey.

Communicate the progress throughout the enterprise to garner broader support and momentum for further investments, collaboration, and buy-in.

Communications should start with the CEO in order to instill the importance throughout the enterprise. Change management is paramount to success in implementing AI in the enterprise in order to offset resistance, fear, uncertainty, or questions over the ROI of AI, and potential impact to the organization.

Be aware of obstacles, roadblocks or even "blockers", and take appropriate action.

Internal competition for talent, data, control, or even "storytelling" work against the greater good. The more internal silos and competition you have, the slower you will be in adoption and gaining the benefits of analytics or AI to benefit the enterprise.

Determine an objective way to recognize the impact of the investments being made and impact to the bottom line.

Speaking of ROI, determine a way to equitably measure the impact of analytics or AI vs. the business decision or action. The impact of analytics (or AI) may be "watered down" if the value of the work is hidden, understated, or misunderstood. Alternatively, proclaiming excessive impact due to the analytics output vs. the business action can result in distrust.

The Next AI Conversation

In closing, there are many critical elements required to adopt or accelerate analytics and AI solutions in an enterprise. In an ideal state, these strategic elements work in an orchestrated fashion to enhance the chance for success. This doesn't suggest you cannot be successful if all of these elements are not in place, or mature throughout the organization. However, senior executives and leaders who utilize these strategies will be more successful in implementing or accelerating their analytics and AI initiatives. Ultimately, enterprises which make AI a strategic priority or imperative will create a competitive advantage in the marketplace.

The Next Step

Contact us at Fractal Analytics to have a conversation to see how we can help you in your journey.

Fractal Analytics is a strategic analytics partner to the most admired Fortune 500 companies globally and helps them power every human decision in the enterprise by bringing analytics & AI.

Fractal Analytics has presence across 12 global locations including the United States, UK and India and has been recently featured as a leader on Forrester Wave™: Customer Analytics Service Providers, 2017. Fractal has also been recognized as “Hot Artificial Intelligence (AI)” company by Forbes and a “Cool Vendor” and a “Vendor to watch” by Gartner.

Learn more at www.fractalanalytics.com

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