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Creating superior customer experiences by leveraging AI and data

By intelligently combining AI technology and human science, businesses can reinvent their decision-making processes to excite customers and grow revenue.

This guidebook describes the data-driven approaches that leading companies apply to rapidly anticipate and adapt to market changes.

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Foundations

In this new era of uncertainty, businesses must keep pace with perpetual changes in customer preferences and market circumstances.

Intelligent decision-making

Businesses continue to grapple with extraordinary situations arising from COVID-19. The "new normal" of business is most notably characterized by volatility. Thus, the global pandemic exposes a dire need for improving internal functionalities and enhancing customer service.

Looking for better ways to respond to market changes? Wondering which short- and long-term actions will shore up resilience to future disruptions? In this guidebook, we show how businesses can head for rebound and growth with decisions powered by artificial intelligence (AI).

Winning businesses operate with speed and agility. AI provides decision-makers with the tools to promptly analyze data, and to figure out the next best actions. At the same time, businesses must realize that AI is about harnessing human talent as much as technological capability.

This guidebook zooms in on the operational level, where AI promises greater efficiency through data modernization and collaborative processes. These changes bring much-needed fluidity and flexibility across roles and functions.

As we point out, businesses will benefit immensely from imagining new approaches, skills, interactions and constructs.

Zooming out, this guidebook invites businesses to rethink AI in relation to value-creation. For instance, companies should shift priorities from increasing productivity and trimming costs to personalizing customer journeys and producing high-value solutions. Many missteps have been made with transformation initiatives over the past decade, partly because businesses struggle with data sourcing and data management. Data reliability is paramount to AI success. Moving forward, then, depends on data-driven digital transformations. The main difference between AI leaders and non-leaders is strategic methodology, so this guidebook closes with practical actions to achieve sustainable success with AI.

A clear trajectory

More than ever, AI is primed to deliver exceptional customer lifetime value. Cognizant research conducted during the COVID-19 outbreak confirms that intelligent decision-making is an area of high ROI. In examining our findings, a major difference between AI leaders and non-leaders emerges. It's apparent that leading businesses embark on the AI path by improving internal functionalities. Then, as their data maturity grows, they turn their attention outward.

AI leaders recognize that value lies in carving out greater market share and developing new products and services. By improving internal functionalities before diving into outwardfacing projects, leading businesses are accelerating value-creation through modern decisioning. Conversely, we found that non-leading companies are mainly focused on increasing productivity, profitability, employee engagement and customer retention.

Clearly, the route taken by leading businesses offers large-scale payoffs. Companies seeking to leverage AI should be meticulous with systemizing their growth strategies. Cognizant strongly recommends the following protocols.

Establish trust

Many people don't fully understand what AI does, leading to misconceptions about the technology. Transparency is a large part of trust-building. Explain how the technology works, and communicate your ethics and monitoring processes (if you don't yet have a governance structure in place, start there). Preparing staff for profound changes in how they work is a marker of a purpose-based organization, and of being regarded in talent markets as an employer of choice. With growth in data maturity, companies begin to use AI within their entire ecosystem, partnerships included. Building trust is therefore of utmost importance.

Cultivate collaboration

Companies undoubtedly need data and IT talent. Yet executives and other decisionmakers must be included on AI projects, especially when it comes to defining a business case. Break down walls between functions. Eliminate separation between sales and customer service. Multidisciplinary teams can see an initiative from all angles, as they form a collective brain pool. Collaboration helps mitigate risk, since it keeps channels of communication between data and analytics staff open. Executives often cite access to AI skills as a key challenge. Partner with vendors that can fill those gaps.

Demonstrate good design

You want people to use your solution. Before building anything, center human beings in your design principles. Take into account how they will interact with and benefit from an experience. Will this add value to their day? If not, don't spend resources on designing and building it. Beware of unintentional constraints-every decision should accelerate innovation, not stifle it. Digital slowdowns will occur from roadmaps that won't fit every context. Proceed with caution when committing to applications.

Beyond pilots

The promise of AI

While we are in the earliest stages of what will be a multi-year, or even a multi-decade, journey towards AI maturity, the technology is advancing significantly. AI capabilities have far surpassed searching through historical data to predict the future. Businesses can now perform highly complex, multivariate analyses to discover entirely new ways of producing and delivering value.

The race towards AI maturity is on. Businesses seeking to accelerate growth cannot afford complacency. At a global level, companies are investing in AI to improve productivity, profitability and customer satisfaction. Now is the time to look beyond pilots and prepare for wide-scale, revenue-generating AI deployments.

Along with establishing strong processes internally, businesses must recognize and address challenges with transitioning. Many companies still measure productivity in terms of output rather than outcome. The world is becoming more complex. Following yesterday's delivery models will not achieve tomorrow's desired results.

Steadily progressing in AI maturity requires three key disciplines: understanding the business context in which real-time decisions will be made; realizing how to harmonize data sets with machine learning; and applying insights within a specified set of rules, particularly where pattern recognition is concerned. Companies in the Benelux region are making great strides in AI maturity. What can be learned from their successes?

AI in Benelux

We see two clear trends with companies in Benelux, the economic union comprising Belgium, the Netherlands and Luxembourg. One is that they are forging ahead with data modernization, which is integral to making intelligent decisions. The other is that these businesses invest in the right resources to monetize their data. They recognize the return on hiring multidisciplinary talent, and they grasp how to optimize platform-oriented processes.

Companies based in the Netherlands stand out for surpassing their European neighbors in AI maturity.

According to a survey we conducted in partnership with ESI ThoughtLab, 36% of Dutch companies continue to advance with AI adoption, and 68% expect to mature further over the next three years.

“How can we do the next big thing?” clients often ask Cognizant. Businesses naturally want to capture value by innovating. With today’s volatility, it is virtually impossible to break new ground by forecasting alone. Businesses need to broaden their scope. Leading companies in Benelux, for example, perceive themselves as more than suppliers. They are building their own data-driven, customer-centric marketplaces. Such a systemic approach to innovation allows companies to massively scale and produce. By investing in the right tools and processes, businesses in the Benelux are efficiently mitigating risk while ensuring transparent models and ethical standards.

On the horizon

In the past, data was more afterthought than primary consideration. It is no surprise, then, that many AI experiments over the last decade have largely been marked by failure. Future business successes will be based on data-driven digital transformations.

COVID-19 jolted businesses into further uncertainty. Yet AI presents countless opportunities to overcome challenges with intelligent data uses. Throughout 2021, companies must explore how to make a difference in the market, especially where possibilities for creating customer value comes in. Those that define strong business cases will gain serious ground in data maturity.

Leaning into the future of work also influences digital maturity. Businesses must enable non-data scientists with AI skills, and gather, integrate and format data for AI. We will witness a shift from larger hierarchical team structures to smaller teams. Repetitive tasks will be left to machines, while humans specialize in applying judgment, creativity and empathy.

Benelux in numbers

According to the latest Cognizant research, key priorities for AI investments by leading companies include:

- Higher productivity (52%)
- Increased customer satisfaction (47%)
- Improved employee engagement (40%)

Harnessing AI

To leverage exemplary customer service with AI, businesses need to see the human side of individual customers.

Hyper-personalization

What time of day does each of your customers prefer to be approached? What kinds of messages are likely to inspire purchases? These questions get to the heart of what hyper- personalization is all about: understanding individual behaviors and preferences to create profitable customer journeys.

"Deliver the right message to the right customer at the right time, and by the right channel"

Segmentation and traditional marketing tools cannot meet today's retention and loyalty challenges. As online experiences improve, customer expectations increase. Superior customer experiences depend on treating every potential buyer as a unique individual. The stickiness factor isn't generated by broadcasting information but through end- to-end relevancy. From brand recognition to purchases, personalized journeys are essential to the buying experience.

"It's about unified customer journeys that drive brand loyalty and unleash the highest lifetime value," says Gregory Verlinden, Associate Vice-President for Artificial Intelligence and Analytics in Benelux. "Think in terms of ongoing dialogue. You must deliver the right message to the right customer at the right time-and via the right channel." In other words: businesses need a deep knowledge of profiles.

Experience operating system

When devising an experience strategy, the best starting point is not "What do we have?" but "What should we deliver?" Success with hyper-personalization hinges on offering customers something of value in exchange for data about themselves and their activities

Determining which experiences will matter to individuals lays the groundwork to leveraging customer relationships. But businesses still need the right resources to optimize their data and their decision-making.

Traditional marketing tactics cannot produce the data-driven intelligence necessary for speed and scale. Meanwhile, expensive marketing tools leave businesses constrained by the parameters of service providers. A fresh approach to customer conversations requires integrating sales, marketing and production processes for data-driven performance. Businesses must combine their technology, customer data and artificial intelligence to deliver contextually relevant and truly personalized experiences.

To reap the benefits of hyper-personalization, companies will want to invest in the right platform-one that enables them to access and analyze the right data at the right time, all while maintaining data privacy and ethical AI governance.

High-value opportunities

With the advanced technology capabilities that are now available, it's a good time for businesses to rethink how to upgrade their approaches to customer experience. More mature forecasting means companies can take their customer lifetime value initiatives to the next level.

One caveat to keep in mind: Gathering as much data as possible will not guarantee success-a lot of data will simply be irrelevant to the context. Businesses naturally don't want to waste time and money on ineffective marketing. So they should use AI technology to identify and target the highest value customers.

Building loyalty and return business are just as vital in B2B contexts as in B2C, though with much more complex challenges to tackle.

How do you profile a company, and how can you profile individuals within that company? You know a prospect would take interest in a new product, but how do you communicate it?

The first crucial step in creating hyper- personalization journeys in B2B contexts is to identify the optimal customer personas. For example, knowing who to approach begins with pinpointing the different stakeholders. The second most important step is a personalized approach to account-based marketing, which can reduce engagement time and lead to increased sales.

ROI and hyper-personalization

For our research with ESI ThoughtLab, we surveyed 1,200 businesses across 12 industries and 15 countries. When it came to the ROI on hyper-personalization, the response was indisputably conclusive. The majority of respondents (74%) say that across functions, customer service and experience is the area most likely to result in a positive return from an AI investment.

Conversational solutions

Engagement engine

Conversational AI is changing how customers interact with businesses. From voice assistants and virtual agents to smart speakers and household appliances, consumers are increasingly using bots to make purchases, pay bills and manage daily household needs. For businesses seeking new ways to engage and retain customers, conversational AI can be a powerful tool.

Marketing, commerce and support leaders are applying conversational technologies broadly and widely to expand reach while increasing customer satisfaction. As a result, businesses are seeing remarkable gains in self-service, customer experience and operational insights. By creating contextual and personalized interactions, businesses can provide the timely, relevant information that supports customer buying decisions.

Conversational commerce is opening up a vast field of possibilities. In the finance sector, for instance, digital assistants are serving as virtual investment coaches, empowering human advisors to optimize client portfolios. On-demand delivery and re-order automation are helping e-commerce brands cement customer loyalty. Retailers are tapping conversational innovations to bridge gaps between in-store and online shopping. Chatbots are simplifying and streamlining personalized customer journeys across a whole host of industries.

Value dynamics

There's an enormous variety of conversational applications, especially in customer service where fast query resolution and 24/7 support can make all the difference in a buying experience. Intelligent virtual assistants reduce overall support costs. And because they gather data about customer needs and intent, conversational technologies can deliver profitable insights when it comes to effective lead generation.

Despite the numerous benefits that conversational AI presents, many companies struggle to incorporate it into their digital ecosystems. The steep learning curve is a big reason many companies stall at earlier stages of development. Creating bots that people actually want to talk to requires a lot of trial and error. Yet it's undeniably important to figure out what resonates: the more businesses learn about customers, the more they can harness conversational AI to tailor products and formulate high-value sales funnels.

On its own, conversational AI isn't the solution for serving customers with relevant information and appealing offers. It's in combination with clear goals, greater data maturity and hyper-personalization that businesses can make the most of intelligent virtual assistants.

To leverage conversational AI, companies should undergo a value-discovery process before experimenting with ideas.

Success practices

With an expansive portfolio of proofs of concept, pilots and deployments, Cognizant finds that successful conversational AI solutions are born from sound methodology. It begins by asking the most practical questions.

Does your business want to cut costs, serve customers better and/or generate additional revenue? Whatever the answer may be, how could conversational AI steer the business towards that goal? To discover the value, company leaders must understand what they want to achieve and how they plan to reach project milestones.

The grandest visions do not necessarily lead to the grandest results. It's always wiser to begin more humbly, says Balazs Vertes, Head of Conversational AI for Europe at Cognizant. "Think big, but start small," he advises. "Choose a single domain, then learn from and expand on that. You don't want to allocate resources to multiple domains, knowing that some projects may not work."

It's essential, then, to find the right uses. Establish a business case with a pathway to value. It's equally important to reflect on your customer profiles.

Conversational AI is an ideal way to interact with customers who want immediate service. If your customer journey isn't open to on-demand interactions, conversational AI won't be a good fit for that business case.

If conversational AI is a good fit, functionality becomes a key consideration. Conversational AI isn't itself a channel. Rather, it's an interface that bridges back-end processes with front-end experiences. Consider which channel is most appropriate to the customer journey, and base the conversational technology around that. Do a lot of user testing to ensure customers will value the product. Embrace feedback, and adapt the solution as needed before final development.

Above all, keep the human in mind. Designing natural sounding conversational flows is an art. Experienced designers will bring the visual appeal, but linguistic skills are indispensable. A bot should speak like a local; you need people with native speaking skills on your team. Skilled copywriters who can build characters and develop scripts are invaluable in establishing authenticity and trust-don't alienate potential buyers with pushy marketing messages.

A bot is only as good as the intelligence driving it. To consistently feed chatbots effective content, companies need a system that continuously captures, reuses and extends data in a structured, efficient way. Such a knowledge framework creates the conditions by which chatbots can deftly match users' intent to specific content.

"Think big, but start small"

AI sustainability

Transforming delivery

AI-driven analytics has briskly grown as a discipline over recent years. The COVID-19 pandemic has clearly sped up this trend, yet few examples where AI has delivered significant value at scale exist. In fact, 40% of AI projects don't get off the ground: even after a hypothesis validation, most initiatives miss the bar and falter. What needs improving?

We cannot emphasize enough that business must establish clear goals before they ideate hyper-personalization and conversational solutions. What are the key aims, which executives will sponsor initiatives and what sort of budgets are sustainable? AI can be quite disruptive, as it involves change-management processes. So it's imperative to define measurable goals first, then seek buy-in from the appropriate stakeholders.

Using human talent more efficiently is another area in need of improvement. Data scientists, for example, spend between 50% and 80% of their time scrambling and cleaning up data. As a result, businesses can lag behind on innovating because manual work bogs down their brain power. Data scientists are best at sifting through and making sense of data, and that's what they should be devoting their time to.

Data scientists often toggle between spreadsheets and disparate tools to manage massive information flows. It isn't feasible to develop successful algorithms without modernization-a sluggish system cannot handle high-volume, high-velocity data with accuracy. Companies with leading track records in AI credit cloud-based platforms for their achievements. Growth relies on equipping data scientists with the computing power that AI requires.

Actionable data

The field for applying AI is huge, with uses in as many as 500 business cases. Translating this potential into value entails, once again, defining clear aims. Without a data context that correlates with and supports the business goals, it won't be possible to move forward. Having the right data, not all the data, is what matters.

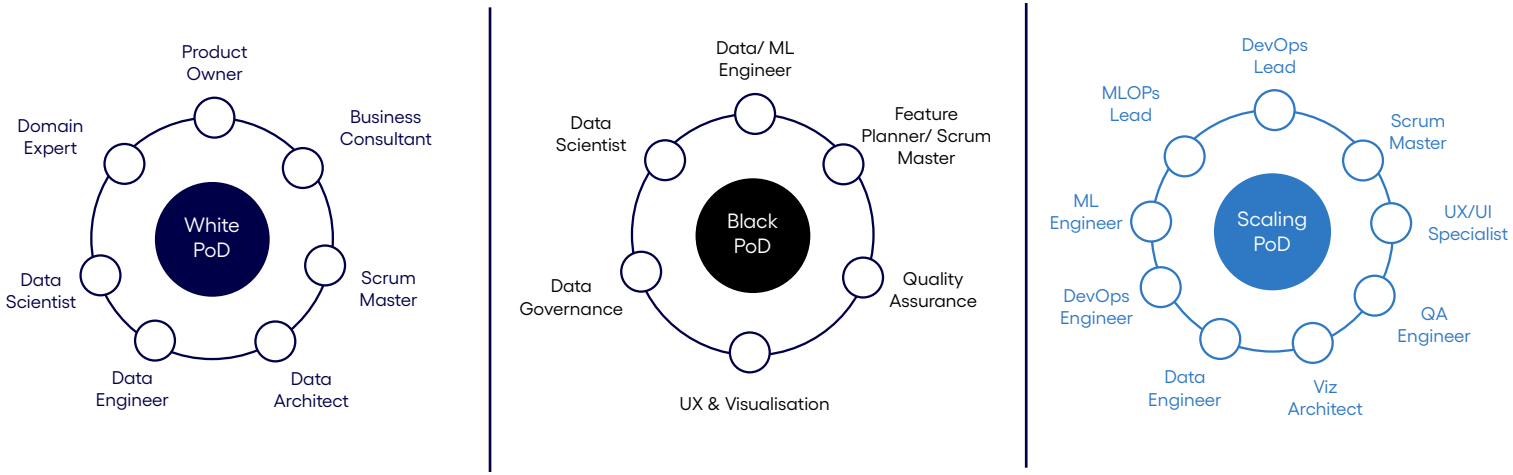
Pulling everything will lead to paralysis at best and faulty modeling and validation at worst. And since customer needs and behaviors constantly change, inputs cannot be static-what worked this month could be irrelevant and useless next week.

Above all, an actionable AI data strategy requires a human-centric approach. Businesses should regularly consider how AI can: best interact with people, from enabling employees to supporting customers; be designed to register patterns in behavior and expectation; have enough "emotional intelligence" to adjust its decisions according to the people around it.

Realizing how to work with the right data for the right purpose is the bedrock of success. With that said, failing does not automatically spell disaster. "Failure can be a vital part of the learning process," says Fabian Dupuis, Director of AI and Analytics for Cognizant. "The trick is to fail and learn quickly to avoid wasting time, money and talent on unfeasible projects."

Pods methodology

As businesses look to scale AI projects, they need flexibility. Building a multidisciplinary team based on each customer use-case is essential. Besides speed and agility, such a team will focus on sustainability as much as outcome. Should issues pop up at any point, an agile, detail-oriented team can swiftly identify and address them. In the first phase, when validating, a data scientist plays a vital role. A dynamic team should also include a product owner, domain expert and scrum master. Ideally, the team during this phase comprises a data architect, data engineer and business consultant as well. This team make-up guaranteesasmoothdata-management process.



Each phase of an AI project, from validation and testing to scaling and deploying, demands different sets of expertise. Changing up team dynamics for each phase bakes resiliency into every step, ensuring the best outcome. The graphic below illustrates how Cognizant's "Pods" method works on client projects. The core "DNA" of the Pods is combining digital expertise, deep knowledge of customers and fundamental delivery excellence. It offers a customizable KPI framework.

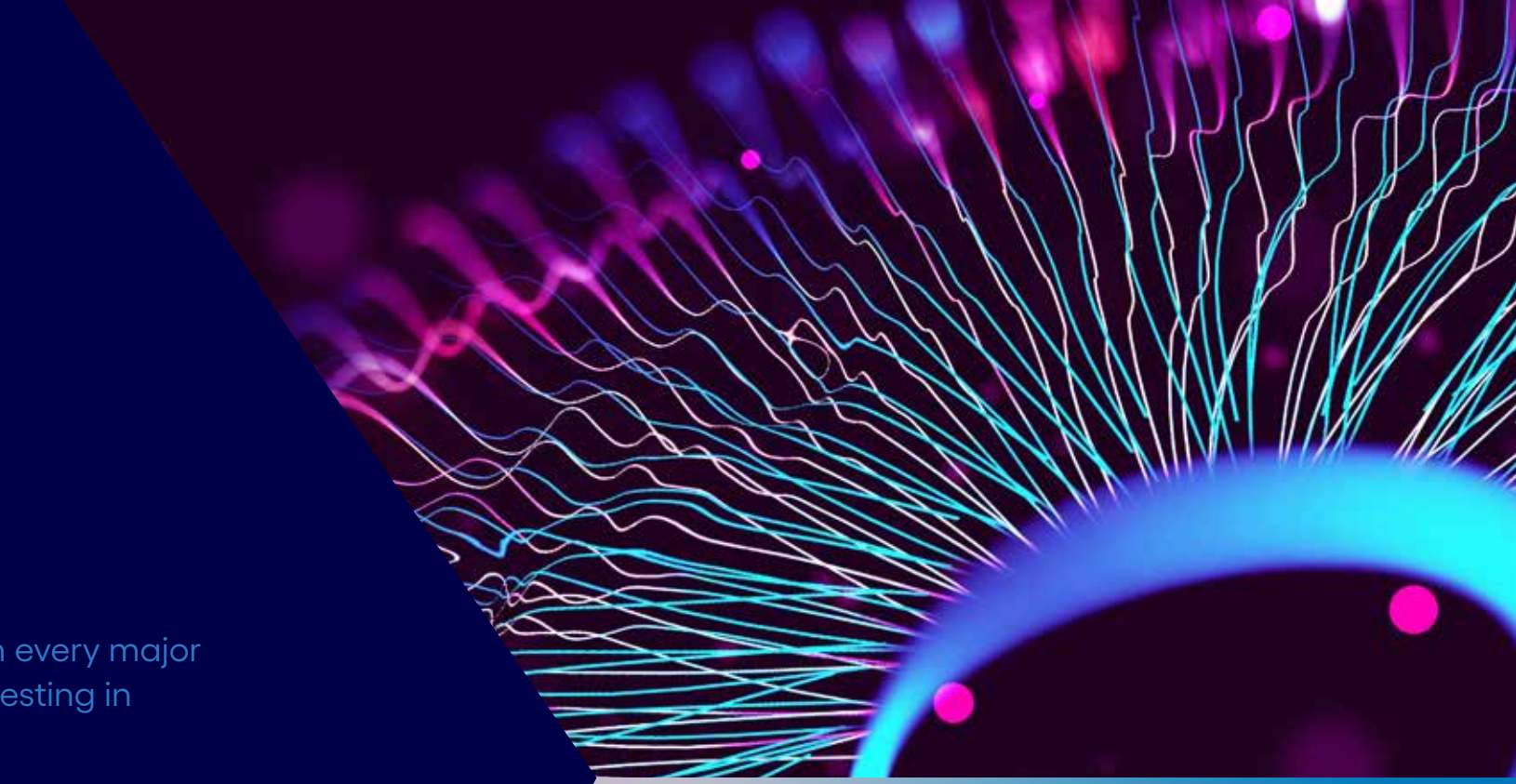
White Pod – They move the project from establishing the business case to creating the first algorithm. Their work includes assessing the data ecosystem and the one-off build of analytical records. While not building the final data platform, this pod validates sustainability and feasibility of a future solution.

Black Pod – They create a first MVP, bringing the algorithm to production. They also validate the business value and real-world outcome. Quite often, this pod reworks and refines the algorithm.

Grey Pod – With an MVP success, this pod scales and embeds the solution. They oversee the software engineering of the AI/ML model to make sure the solution is actionable from data ingestion through designing for user experience and adoption.

Case studies

These examples illustrate how businesses in every major industry are modernizing their data and investing in human capacity to succeed with AI.



Banking & Finance

Major Belgian bank: best-in-class services through transformation

"90% effort savings in on-boarding new data sources"

Challenge

- The client wanted to become a data-driven organization and improve the alignment and collaboration with business by instilling trust and confidence in data
- Leverage best practices in project delivery and improve efficiencies

Solution

- Cognizant analyzed the client's existing architecture; proposed a target-state architecture and a transformation roadmap with milestones; and developed a managed services operating model
- Implemented a data ingestion framework for rapid on-boarding of new data sources

Outcomes

- 90% effort savings in on-boarding new data sources
- Established best practices and effectively supported end-users reporting on the data platform through managed services model

European insurer: growing revenue through modernization

"30% improvement in customer satisfaction"

Challenge

- The client wanted to grow its customer base, increase up/cross-sell and reduce customer churn
- Develop a 360-degree view of customer profiles for hyper-personalization and improved customer experience

Solution

- Cognizant established a robust data platform in Azure Cloud with a complete view of customers
- We analyzed Fund products; developed predictive and descriptive models to distribution across different marketing channels (web, email, phone); evaluated campaign effectiveness

Outcomes

- Increased the number of up/cross-sell options fine-tuned to target groups, with more than 40 product recommendations
- 30% improvement in customer satisfaction
- 166% increase in NBA sales

Belgian electricity and energy supplier: data reliability for innovation

"Eliminating inconsistencies in data prevents major financial losses"

Challenge

- Due to incorrect data and forecasting models, the client overestimated the potential demand for new products
- The client wanted a knowledge ecosystem that would produce trustworthy data and support product and service innovation

Solution

- Cognizant analyzed the forecasting process and accuracy in data and models
- We wrote a custom forecasting algorithm that: adapts to the specificity of any given business case; leverages the data available in the client's cloud data lake; delivers scalable, performant processing power

Outcomes

- Eliminating inconsistencies in data prevents major financial losses
- Accuracy in forecasting models and data provides senior management the checks and balances they need to make the best business decisions

International pharmaceutical: smarter and faster clinical trials

"30% increase in forecast accuracy of recruitments needs results in on-time availability of patients for clinical trials"

Challenge

- The existing clinical trial recruitment process was suboptimal, as it often led to higher cost and uncertain timelines
- The client wanted to explore the possibility of developing a clinical trial recruitment solution leveraging AI/ML

Solution

- Cognizant led the client through a discovery phase to identify high-level functional requirements
- We leveraged ML-based models and Markov chain to predict: current vaccine center performance for an ongoing study; expected center performance based on similar past studies; feasibility of recruitment plan

Outcomes

- Improved effectiveness in patient recruitment process by offering insights on recruitment needs over a forecast range
- 30% increase in forecast accuracy of recruitments needs results in on-time availability of patients for clinical trials

Large Dutch healthcare goods supplier: rapid data identification

"9% increase in profitability"

Challenge

- The forecasting system for capacity planning was focused on the short-term and unable to leverage real-time data for demand planning
- The client wanted to build a forecasting system for both the short-term and long-term, and adjustments done per real-time demand information

Solution

- Cognizant helped the client by predicting the number of lines, shift structure and real estate requirements to meet forecasted demand
- Our team optimized the total system cost while increasing profitability and customer fill rates, and we estimated the investment and capacity required to meet future long-term demand
- We carried out scenario planning by evaluating alternatives for managing risk and uncertainty

Outcomes

- € 11.8 million in annual cost savings
- 9% increase in profitability
- 86% accuracy in demand prediction

Major Dutch mobile network provider: streamlined ticket resolution and resource-planning

"30% improvement in resolution time due to reduction in ticket hops"

Challenge

- Higher ticket resolution time as tickets were assigned to inappropriate agents
- Reduce the mean time to repair and solve customer queries faster

Solution

- Cognizant provided a machine learning approach, along with text mining and clustering techniques, to group tickets by issue descriptions
- We developed a predictive classifier model to help agents successfully assign tickets and avoid misalignment, leading to quicker resolutions
- Based on ticket classification, resolutions were recommended based on resolutions associated with the corresponding cluster

Outcomes

- 30% improvement in resolution time due to reduction in ticket hops
- Enhanced resource planning effectiveness
- Improved customer service

Success strategies

Achieving maturity in AI requires developing and implementing a strategic plan that is designed for flexibility and high-value outcomes.

Addressing common challenges

Reaching maturity in AI is undoubtedly a longer-term objective for most businesses. How can companies see greater impact from their AI investments? By acknowledging why their AI spending is not translating into results, then tackling those issues. Here are the three most common challenges businesses face, along with our antidotes.

1. AI leadership

The multidisciplinary nature of AI requires a broad set of skills to manage different aspects of its application. This brings issues in identifying the right people to lead AI projects. The tendency has been to put this responsibility in the hands of senior IT, digital or data science heads, rather than treat it as a company-wide endeavor.

AI is a cultural change, not an IT investment. The implications of AI span from the back office to customer interactions. These diverse perspectives are valuable for ensuring the application is solving real problems. Sharing the onus between different parts of the business guarantees accountability, and it incorporates necessary viewpoints around need and usability.

Place less emphasis on the tech, and put more on the "why".

2. Regulatory and ethics concerns

Legislation such as the GDPR makes companies more aware of the reputational and financial risks associated with misusing data. Make it easy for staff to use data correctly. Use technical safeguards and checks so that data processing for AI adheres to regulatory requirements and maintains a high threshold for security and privacy. Improve the overall quality of data on record, at a technical (coded into software) and process (employee training) level. Sidestep negative consequences by confronting the issue of bias in data, especially in areas like human resource and recruitment.

Support data compliance and best practices.

3. Data infrastructure and management

Before they can explore advanced data capabilities, companies must modernize their data infrastructure. This means putting hybrid cloud capabilities in place to make systems like neural networks widely accessible.

Cloud transformation is part of the AI process- hybrid cloud capabilities are needed to access the services and resources that sustain AI programs at scale.

Build a robust foundation for your data.

Pivotal actions

AI technology is most powerful when it collaborates with people, augmenting human activities and decisions. A human-oriented approach is key to ensuring that AI fits into real-world contexts. The following human-centric actions are critical to attaining sustainability with AI.

Grow your understanding of AI and build an AI strategy

Many companies lack a sustainable strategy for integrating AI. Further, the technology is constantly changing. Business leaders must strengthen their grasp of AI so they can develop clear-cut plans to leverage ever-evolving tools and data.

Prioritize company goals alongside responsible behavior

A rigorous AI strategy process starts with emphasizing value-creation and ethical behavior. That may sound like common sense, but many of today's AI initiatives mistakenly focus more on technological capabilities and algorithms than on impacts and business benefits.

Experiment continually while applying learning to the next stage

There is no one-size-fits-all solution. Each AI challenge needs a unique approach, rather than a sequential process. Balance testing and measurement with risk-taking and innovation. Move on from failures quickly, yet be prepared to rapidly scale winning experiments.

Get your data right, then enrich it

While accurate data is vital, it isn't enough. Businesses must bring in richer sets and types of data, such as psychographic, geo-spatial and real-time data. Digital maturity demands managing data well and realizing how to make it useful.

Solve the human side of the equation

AI is mostly about people. Hire tech-savvy talent who are aware of business needs. Make sure your team doesn't stagnate in building models: create solutions. Consider HR hiring and retention plans-avoid disruption by securing the next generation of talent.

Kick off your own skills renaissance

AI requires new roles like big data specialists, process automation experts, security analysts, human-machine interaction designers, robotics engineers and machine learning experts. Besides hiring fresh talent, organizations must upskill their existing talent.

"Forge the trust that makes human-machine teaming succeed"

Construct workflows around performance thresholds

Forge the trust that makes human-machine teaming succeed. Prepare staff for profound shifts in how they will work. Without this foundational trust, staff will see machines as a threat to job security rather than a protector of it.

Promote collaboration and learning

Executives across functions–not just in IT- should cultivate a digital culture that motivates employees to use and apply new data services within their roles. AI has the potential to touch many parts of the company, so algorithms must "understand" the larger context in which they operate.

Navigate an ocean of possibilities

Reducing costs is a key benefit of AI. But there's a vast range of other benefits. For example, AI can help improve product and service quality, reduce cycle time and enhance job satisfaction. See past lowering costs—stay open to exploring AI-enabled possibilities.

Cognizant's five-step approach

Refine your processes with our five-phased approach to delivering AI at scale, from establishing a rock-solid business case to accomplishing production milestones.

1 Business understanding
Define clear goals, KPIs and value case

2 Data ecosystem
Develop and test hypotheses

3 Modelling insight
Assess models against target KPIs

4 Business value and go live
Apply the model in a real-world pilot

5 Scale and embed
Go into production

About Cognizant Artificial Intelligence Practice

As part of Cognizant Digital Business, Cognizant's Artificial Intelligence Practice provides advanced data collection and management expertise, as well as artificial intelligence and analytics capabilities that help clients create highly personalized digital experiences, products and services at every touchpoint of the customer journey. Our AI solutions glean insights from data to inform decision-making, improve operations efficiencies and reduce costs. We apply Evolutionary AI, Conversational AI and decision support solutions built on machine learning, deep learning and advanced analytics techniques to help ourclients optimize their business/IT strategy, identify new growth areas and outperform the competition. To learn more, visit us at www.cognizant.com/ai.

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Gregory Verlinden, Associate Vice-President for Artificial Intelligence and Analytics in Benelux. With more than 25 years of expertise, Gregory Verlinden is passionate about bridging business and technology within the field of cloud and AI. He takes an evolutionary view of success, facilitating client growth in established markets. Gregory has a proven track record in start-up and crisis situations, where his analytical and problem-solving capabilities have contributed to strategic solutions. He holds a master's in Computer Science and in Business Administration. Gregory's favorite AI topic du jour is data-driven digital transformations.

Abid Samali,
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Abid Samali has 22-plus years of accomplishment within financial and risk services with a deep understanding of banking and financial organization: products, risks, regulation, and Internal & regulatory Reporting Providing those skills mixed up with data management challenges: data governance, architecture, modeling, design, operability and interoperability, security, integration, content management, MDM, Warehousing/BI, MDM, metadata, data quality and finally IA & ML. Without losing sight in regard to data ethics, Big data and science, maturity assessment, organizational role expectations, and also acculturation for change management. Abid has functional, technical, and managerial skills for complete autonomy to handle Programs, projects, or teams in project or BAU mode with all it entails in terms of task and deliverable planning. Abid has multiple master's degrees: Finance from UPEC Paris, IT Audit and Advisory from Dauphine Paris, 7th degree MBA from Metropolitan School of Business and Management, Artificial Intelligence - Implications for Business Strategy -MIT, and many certifications. Moreover, Abid like sports and motorsports shared with his son.

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About Cognizant

Cognizant (Nasdaq-100: CTSH) engineers modern businesses. We help our clients modernize technology, reimagine processes and transform experiences so they can stay ahead in our fast-changing world. Together, we're improving everyday life. See how at www.cognizant.com or @Cognizant.

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