ENHANCING CUSTOMER EXPERIENCE WITH AI

Abstract

Unlocking hidden insights from data created through omni-channel and multi-media customers interactions is a tall order for enterprises. However, if they are to be responsive to customer needs, personalize products and offers, and deliver exceptional experience, they need artificial intelligence (AI) led solutions for customer experience. This paper examines how AI and data science help enhance customer experience (CX) in the digital age. It also discusses the AI-first CX platform by Salesforce, named Salesforce Einstein, and how it empowers organizations to revamp their CRM function.

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Introduction

Today's enterprises are saturated with high volumes of multi-channel and live data that are captured in an unstructured manner. Unfortunately, most of this data is not leveraged optimally for customer service, resulting in low net promotor scores (NPS) and poor customer experience. Thus, despite investing in end-to-end digital transformations with best-of-breed technologies, organizations fail to meet business outcomes or realize measurable value.

Academicians often talk about how artificial intelligence (AI) and data science can help businesses make data-driven decisions. The industry has been following these recommendations. According to a recent McKinsey report on 'State of AI in 2021', 57% of emerging economies have adopted AI with a focus on sales, service operations, product enhancements, and contact center automation[1]. Additionally, in the era of Industry 4.0, data science is seeing greater adoption as industries rely heavily on data to create better products and target the right customers.

AI and Data Science for Customer Experience

The most sought-after capability is data science that cuts across machine learning and involves mathematical statistics and AI programming to generate business-critical insights and smart predictions. These are in demand in advanced markets and among segment leaders who wish to drive enterprise transformation journeys.

Gartner in their 'Customer Experience Battlefield' report predicts that 89% of enterprises will compete predominantly on customer experience (CX)[2], and organizations are investing in AI to enhance customer satisfaction. The combination of CX technologies, AI, and data science can drive greater benefits by leveraging existing business data and analyzing multi-language text, images, sentiment, audio, and other multi-media formats in an unstructured manner.

As per the IBM Institute of Business Value, 70% of executives in emerging economies have an appetite for AI-enhanced CX (AI/CX)[3].
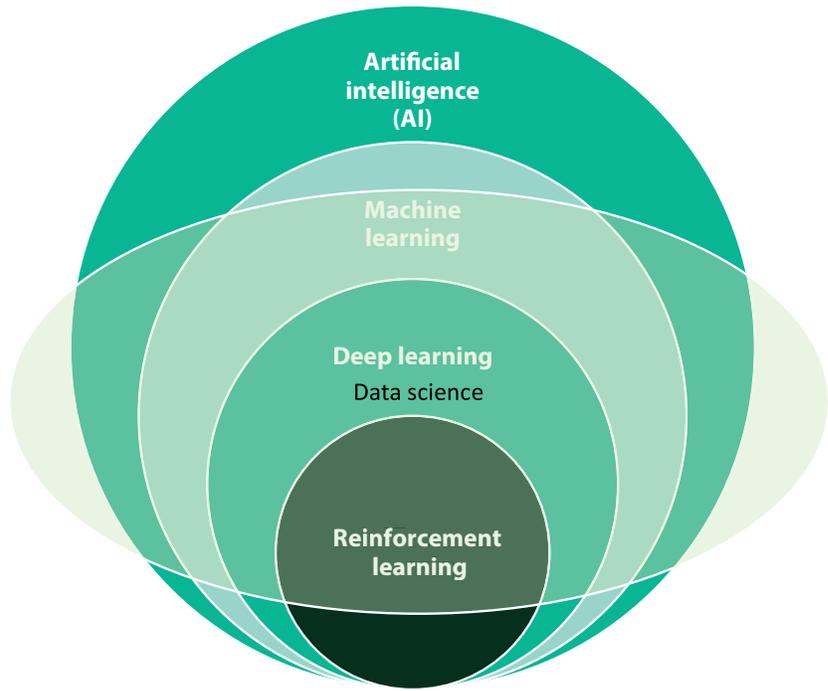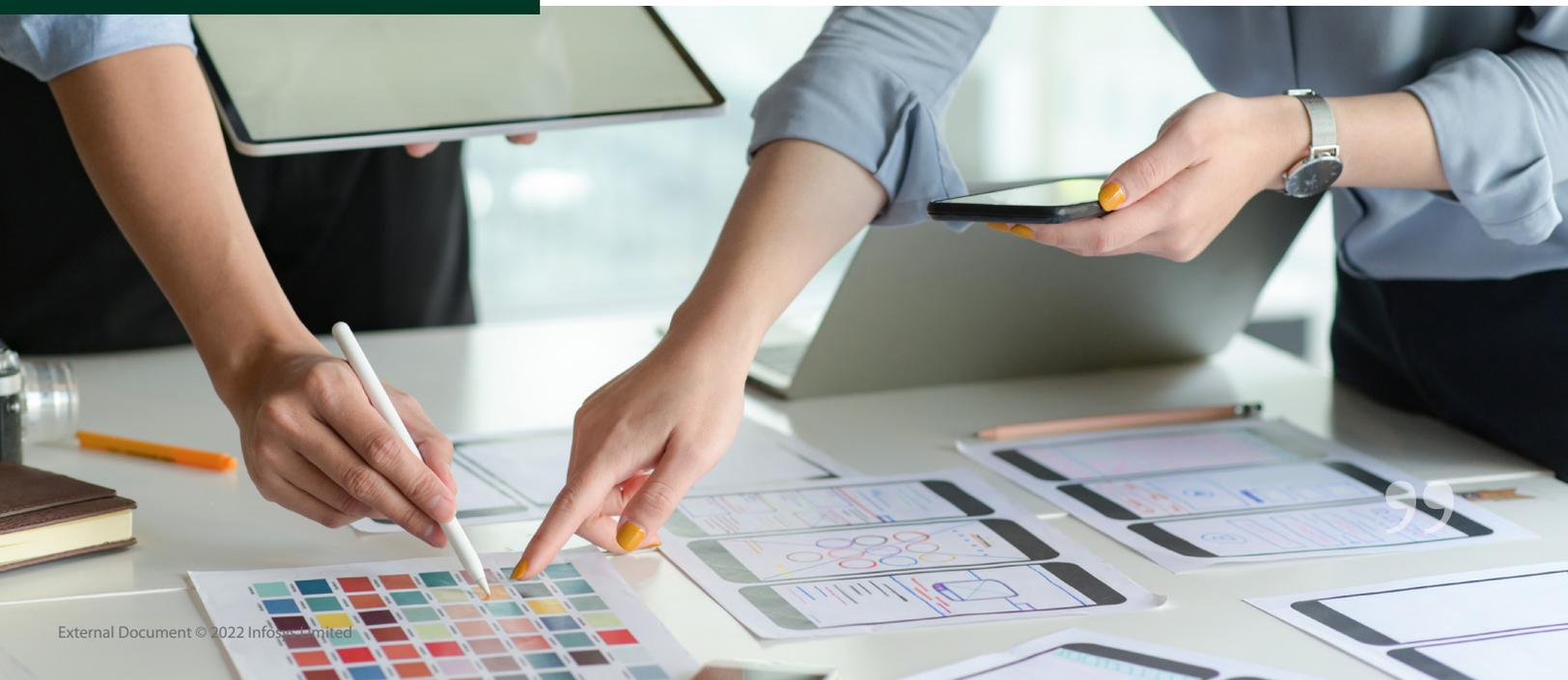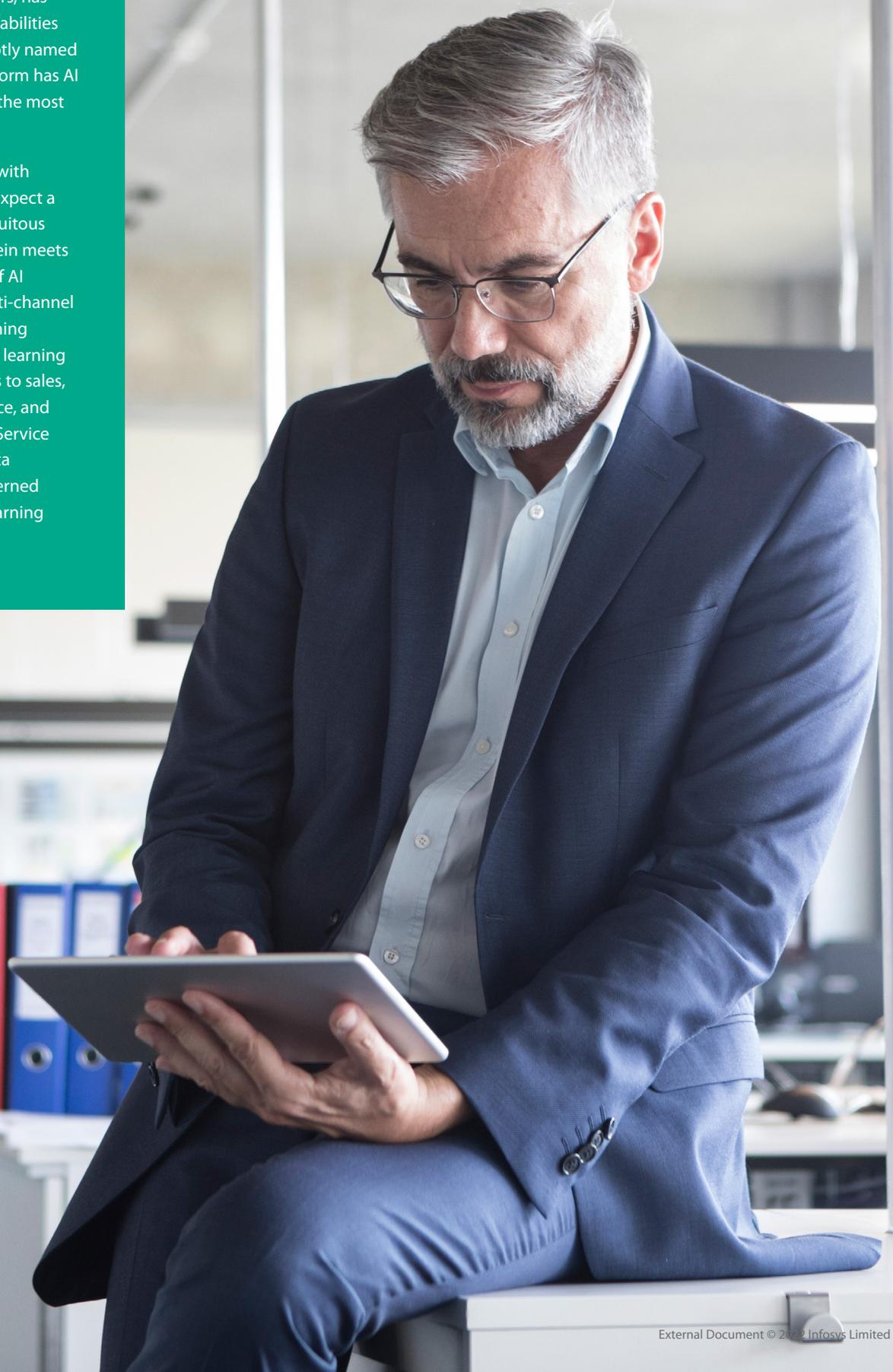

Figure 1 – AI and data science: The big picture

Salesforce Einstein: An AI-first CX Platform

Salesforce, one of the world's leading cloud-based customer relationship management (CRM) providers, has introduced a series of AI capabilities into its SaaS CX platform. Aptly named Salesforce Einstein, the platform has AI built into its core, making it the most comprehensive AI for CX.

Customers want to interact with their service providers and expect a seamless omnichannel ubiquitous experience. Salesforce Einstein meets this need through its suite of AI capabilities that handle multi-channel and multi-media-based training datasets supported by deep learning and ML algorithms[4]. It caters to sales, service, marketing, commerce, and analytics. It delivers AI-as-a-Service so enterprises can adopt data science without being concerned with underlying machine learning algorithms.

Platform features

- Delivers AI-as-a-Service through prebuilt machine learning models for established business processes in several industry verticals

- Allows enterprises to build and run custom ML models, and train and monitor these with deep learning capabilities

- Encourages interoperability by exposing AI APIs and consuming insights from other AI engines such as IBM Watson

Today Salesforce Einstein has been positioned as 'Artificial intelligence' for everyone. Enabling organizations large and small to deliver smarter, personalized, and

intuitive customer experience powered by advanced machine learning, NLP, vision, and so on. Salesforce has introduced a series of AI-enabled capabilities in their product roadmap both organically as well as inorganically[5] via a sequence of AI start-up acquisitions.

EdgeSpring and Relate IQ

Analytics and relationship intelligence

Tempo and Minhash

Predictive scheduling and search intelligence

PredictionIQ and MetaMind

Machine learning and deep learning

Implicit and Coolan

Sales and infrastructure intelligence

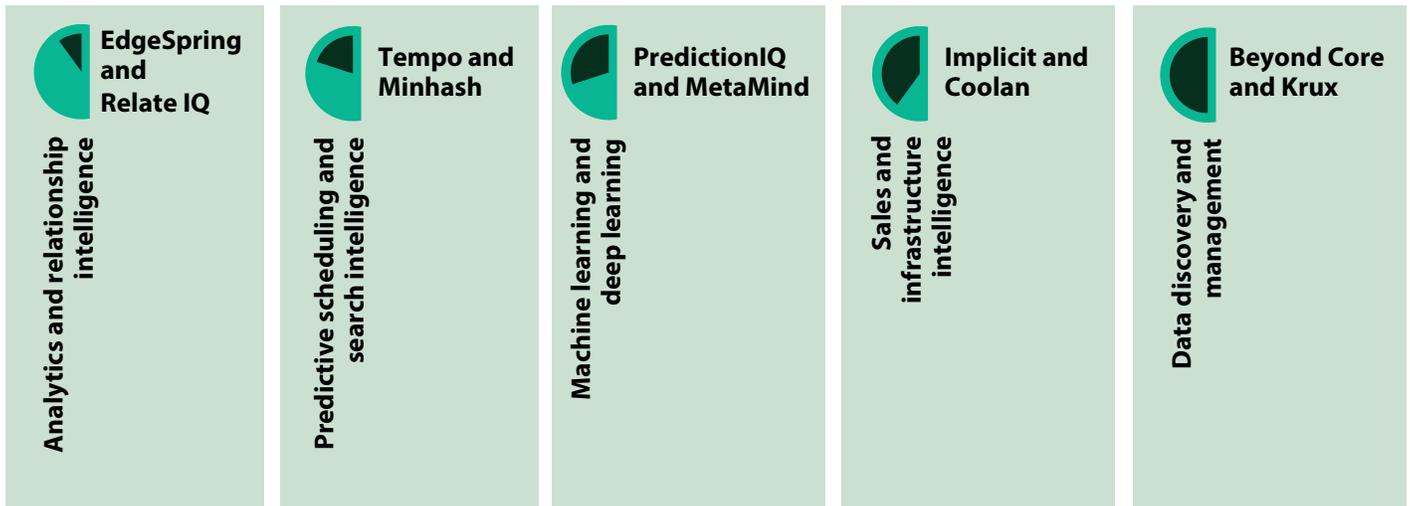**Beyond Core and Krux**

Data discovery and management

Figure 2 – Top 10 Salesforce acquisitions to bring holistic CX to enterprises

As more and more end customers seek ease of interaction with their service providers and expect a seamless omnichannel ubiquitous experience, Salesforce has a suite of AI capabilities to handle multi-channel and multi-media-based training data sets supported through their deep learning ML algorithms. Enterprises leveraging these AI features are freed-up from the need to develop and maintain their ML algorithms[6], and rather leverage AI services from Salesforce by training their data set and generating the model and using those models for predictions, insights, and other attribute discoveries.
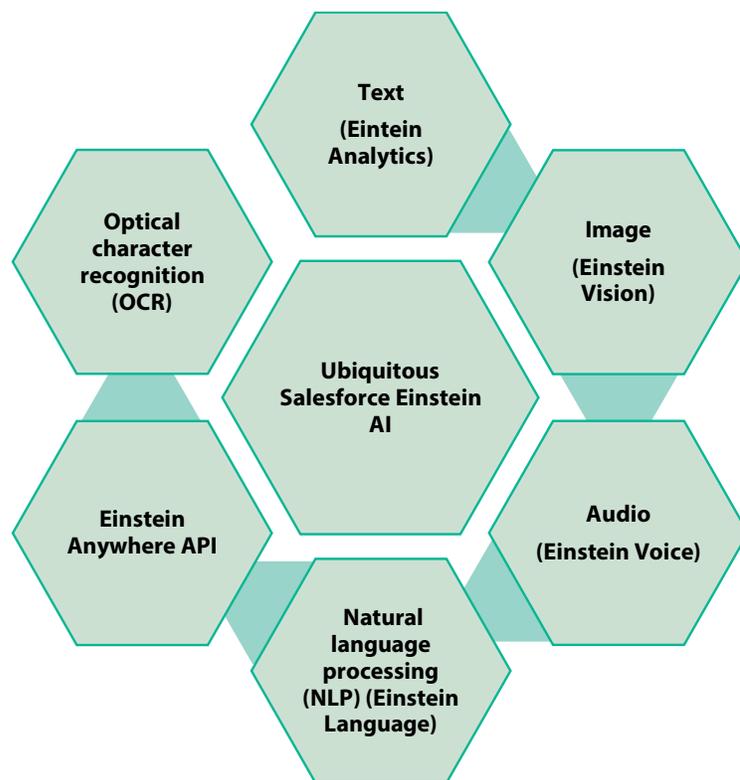
Text (Eintein Analytics)

Optical character recognition (OCR)

Image (Einstein Vision)

Ubiquitous Salesforce Einstein AI

Einstein Anywhere API

Audio (Einstein Voice)

Natural language processing (NLP) (Einstein Language)

Figure 3 – Ubiquitous Salesforce AI capabilities

Industry Use Cases of Salesforce Einstein

Communications, media, and entertainment (CME) can use Salesforce Einstein for sales and service analytics, customer service bots, cross-region reporting, insight discovery, prediction builder, and next best actions. To reduce costs incurred from extensive customer support centers and achieve case deflection, most CME organizations use chatbots to service customer requests online and via mobile. AI can also help detect fraud by identifying abnormal traffic in real-time.

The **consumer goods** industry uses Einstein AI for merchandising, smarter field service, product recommendations, and image-based search.

The **manufacturing** industry can leverage AI capabilities around predictive maintenance (identify potential downtime and accidents) in conjunction with Industry IoT solutions. Salesforce supported reinforcement learning helps in predictive forecasting of raw material supplies and price-points. Salesforce AI

vision services helps in improving quality assurance.

Healthcare organizations are leveraging Salesforce Einstein AI for IoT-based interaction insights through AI-powered wearables trackers. These insights assisted by Einstein's Case Classification and Case Wrap-up can advise next best actions to caregivers, accelerate diagnoses, and validate treatment pathways. Developed markets are already using AI to improve workflows between healthcare and insurance providers by gathering data based on health history and using predictive insights to recommend suitable health insurance plans.

Energy and utility providers as well as CMEs use AI for churn management8. Salesforce Tableau-based churn prediction combines data around interactions, case history, and resolution SLAs with billing, usage, and network data points. This helps organizations track contract renewals and identify up-sell and cross-sell opportunities using next best actions such as discounts,

promotions, VAS, credits, and so on.

The **retail** industry leverages AI in marketing for customer segmentation and content targeting. It scores customer engagements using social sentiment insights for personalized advertisements and more.

SME segments across industries often use AI bots to bring down customer service costs and free agents to engage in cross-selling and up-selling. This is backed by personalization using Einstein's next best activity. SME segments can also utilize the platform's lead and opportunity nurturing and scoring functions to optimize their sales manager's bandwidth to target hot leads and promising prospects.

The **beauty and cosmetics** industry can use deep learning-based artificial vision for e-commerce product tagging and visual search functionalities. Leveraging Salesforce Einstein will also help deduce competitor prices and provide options to compare similar products (brand detection) in that segment.

Sales Cloud Einstein capabilities	Service Cloud Einstein capabilities	Tableau Analytics and APP Cloud Einstein capabilities	Commerce Cloud Einstein capabilities	Marketing Cloud Einstein capabilities
• Lead and opportunity scoring • Account insights and opportunity forecasting • Activity capture • Call coaching • Conversation insights • Pricing guidance (CPQ) • Email insights	• Bots • Case classification and routing • Article recommendations • Reply recommendations • Supervisor • Case management • Mobile service • Intent classification • Case wrap-up	• Analytics studio • Discovery • Vision • Prediction builder • Next best action • Language • Model cards • Field service work order recommendations • Sales and service analytics	• Product recommendations • Predictive sort • Commercial insights • Search dictionaries	• Engagement scoring • Recommendations • Content selection • Campaign and sentiment Insights • Behavior scoring • Account-based marketing • Custom classifiers • Customer segmentation • Social insights • Send time optimization • Marketing insights (Datorama) • Content tagging

Figure 4 – Salesforce AI offerings

Infosys as a Salesforce Einstein Implementation Partner

Infosys provides a holistic and structured approach towards AI-led digital transformation for enhanced customer experience through the following offerings:

COE and best practices → Enablement and certifications → Point-of-view and demos → DevSecOps → Training and model generation → Migration framework → Infosys Cobalt

Figure 5 – Infosys 'Salesforce AI' offering for cloud CX

As a strategic system integrator in several digital transformation journeys, Infosys possesses key differentiators that make it the right implementation partner for Salesforce Einstein:

- Provides quality-centric and value-driven implementations using Infosys Cobalt, a set of services, solutions, and platforms, that accelerate customer digital transformation on cloud

- Leverages a robust enablement platform for its practitioners through a center of excellence that supports competency anchoring and joint projects with Salesforce to encourage learning, knowledge dissemination, dedicated certification drives, and knowledge assist series

- Proven implementation experience as demonstrated in various published points-of-view and case studies along with Hive initiatives that allow previous lessons around AI to be adopted in new use-cases for maximum benefit to enterprises

- Strong partnership with Salesforce, bringing in their combined strength to steer industry-specific digital transformation with AI for smarter and more predictable customer management

> " • Infosys offers Advisory, Consultancy, Feature Enablement, Configuration, Implementation, and Integration capabilities around Salesforce Einstein space "

Conclusion

The future roadmap for enterprises must be to smartly automate their business process with the AI digital footprint to tap into hidden insights from their existing data and achieve better business decisions. With AR, IoT, Voice-assist, and many other multi-media-based interactions, Enterprises must cater to the omnichannel ubiquitous form of responding to their customers. Businesses must gradually hop onto AI ways of working by setting up BOTs, AI-driven discovery, lead, and opportunity nurturing and gradually start adopting more complex advanced use-cases to solve their business challenges such as selling the next best offer, managing churn, targeting the right audiences, so on.

Finally having a dedicated AI support team in place and effectively leveraging them than their peers by building multi-models, reiterative learning, and reporting based on the decisions made via AI modules shall start giving confidence to the senior stakeholders attempting to adopt AI in their digital CX journey. Infosys, as a Salesforce implementation partner, uses advanced AI best practices on cloud-based AI SaaS platforms for successful AI adoption at scale.

About the Author

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Twenty years of experience in domain consulting and platform advisory services for enterprise cloud applications across industry verticals.

He is closely associated with Salesforce Einstein (AI)-based digital transformation journeys and takes a keen interest in experimenting with AI algorithms and solving data science problems across the CX space.

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Infosys Cobalt is a set of services, solutions and platforms for enterprises to accelerate their cloud journey. It offers over 35,000 cloud assets, over 300 industry cloud solution blueprints and a thriving community of cloud business and technology practitioners to drive increased business value. With Infosys Cobalt, regulatory and security compliance, along with technical and financial governance comes baked into every solution delivered.

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