Applications of Artificial Intelligence:

Nowadays Artificial Intelligence is changing every industry and business functions, which includes Marketing, sales, Data, Customer Service and tech etc..

Marketing

- **Marketing analytics:** AI systems learn from, analyze, and measure marketing efforts. These solutions track media activity and provide insights into PR efforts to highlight what is driving engagement, traffic, and revenue. As a result, companies can provide better and more accurate marketing services to their customers. Besides PR efforts, AI-powered marketing analytics can lead companies to identify their customer groups more accurately. By discovering their loyal customers, companies can develop accurate marketing strategies and also retarget customers who have expressed interest in products or services before. Feel free to read more about marketing analytics with AI from this article.
- **Personalized Marketing:** The more companies understand their customers, the better they serve them. AI can assist companies in this task and support them in giving personalized experiences for customers. As an example, suppose you visited an online store and looked at a product but didn't buy it. Afterward, you see that exact product in digital ads. More than that, companies can send personalized emails or special offers and recommend new products that go along with customers' tastes.
- **Context-Aware Marketing**: You can leverage machine vision and natural language processing (NLP) to understand the context where your ads will be served. With context-aware advertising, you can protect your brand and increase marketing efficiency by ensuring your message fits its context, making static images on the web come alive with your messages.

Sales

- **Sales Forecasting:** AI allows automatic and accurate sales forecasts based on all customer contacts and previous sales outcomes. Automatically forecast sales accurately based on all customer contacts and previous sales outcomes. Give your sales personnel more sales time while increasing forecast accuracy. Hewlett Packard Enterprise indicates that it has experienced a 5x increase in forecast simplicity, speed, and accuracy with Clari's sales forecasting tools.
- **Lead generation:** Use a comprehensive data profile of your visitors to identify which companies your sales reps need to connect. Generate leads for your sales reps leveraging databases and social networks
- **Sales Data Input Automation:** Data from various sources will be effortlessly and intelligently copied into your CRM. Automatically sync calendar, address book, emails, phone calls, and messages of your salesforce to your CRM system. Enjoy better sales visibility and analytics while giving your sales personnel more sales time.

Customer Service

- **Social Listening & Ticketing**: Leverage Natural Language Processing and machine vision to identify customers to contact and respond to them automatically or assign them to relevant agents, increasing customer satisfaction. Use the data available in social networks to uncover whom to sell and what to sell.
- **Intelligent Call Routing**: Route calls to the most capable agents available. Intelligent routing systems incorporate data from all customer interactions to optimize the customer satisfaction. Based on the customer profile and your agent's performance, you can deliver the right service with the right agent and achieve superior net promoter scores. Feel free to read case studies about matching customer to right agent in our emotional AI examples article.
- **Call Classification**: Leverage natural language processing (NLP) to understand what the customer wants to achieve so your agents can focus on higher value-added activities. Before channeling the call, identify the nature of your customers' needs and let the right department handle the problem. Increase efficiency with higher satisfaction rates.
- **Voice Authentication**: Authenticate customers without passwords leveraging biometry to improve customer satisfaction and reduce issues related to forgotten passwords. Their unique voice id will be their most secure key for accessing confidential information. Instead of the last four digits of SSN, customers will gain access by using their voice.
- **Call Intent Discovery**: Leverage Natural Language Processing and machine learning to estimate and manage customer's intent (e.g., churn) to improve customer satisfaction and business metrics. Sentiment analysis through the customer's voice level and pitch. Detect the micro-emotions that drive the decision-making process. Explore how chatbots detect customer intent in our in-depth article on intent recognition.
- **Customer Service Response Suggestions**: Bots will listen in on agents' calls suggesting best practice answers to improve customer satisfaction and standardize customer experience. Increase upsells and cross-sells by giving the right suggestion. Responses will be standardized, and the best possible approach will serve the benefit of the customer.
- **Chatbot**: Chatbots can understand more complicated queries as AI algorithms improve. Thus, businesses understand their customers better since chatbots collect information from customers while interacting with them and spot their weaknesses. There are other benefits like 24/7 availability and reduced costs, as bots can handle more tasks as they learn more. All these benefits significantly improve the customer satisfaction of businesses.
- **Customer Service Chatbot (Self – Service Solution)**: Build your own 24/7 functioning, intelligent, self-improving chatbots to handle most queries and transfer customers to live agents when needed. Reduce customer service costs and increase customer satisfaction. Reduce the traffic on your existing customer representatives and make them focus on the more specific needs of your customers. If you want to have more insights on chatbots in customer service, you can find more in our article on the topic.
- **Call Analytics**: Advanced analytics on call data to uncover insights to improve customer satisfaction and increase efficiency. Find patterns and optimize your results. Analyze customer reviews through voice data and pinpoint, where there is room for improvement. Sestek indicates that ING Bank observed a 15% increase in sales quality score and a 3% decrease in overall silence rates after they integrated AI into their call systems.

Data

- **Data Visualization**: Visualize your data for better analytics and decision making. Let the dashboards speak. Convey your message more easily and more esthetically.
- **Data Management & Monitoring**: Keep your data high quality for advanced analytics. Adjust the quality by filtering the incoming data. Save time by automating manual and repetitive tasks.

- **Data Integration**: Combine your data from different sources into meaningful and valuable information. Data traffic depends on multiple platforms. Therefore, managing this huge traffic and structuring the data into a meaningful format will be important. Keep your data lake available for further analysis.
- **Data Preparation Platform**: Prepare your data from raw formats with data quality problems to a clean, ready to analyze format. Use extract, transform, and load (ETL) platforms to fine-tune your data before placing it into a data warehouse.
- **Data Cleaning & Validation Platform**: Avoid garbage in, garbage out by ensuring the quality of your data with appropriate data cleaning processes and tools. Automate the validation process by using external data sources. Regular maintenance cleaning can be scheduled, and the quality of the data can be increased.
- **Data Transformation**: Transform your data to prepare it for advanced analytics. If it is unstructured, adjust it for the required format.
- **AppDev**: App development platforms for your custom projects. Your in-house development team can create original projects for your specific business needs. These platforms will help your team with the necessary tools.
- **Data Labeling**: Unless you use unsupervised learning systems, you need high quality labeled data. Label your data to train your supervised learning systems. Human-in-the-loop systems auto label your data and crowdsource labeling data points that cannot be auto-labeled with confidence.

Tech:

- **Robotic Process Automation (RPA) Implementation**: Implementing RPA solutions requires effort. Suitable processes need to be identified. If a rules-based robot will be used, the robot needs to be programmed. Employees' questions need to be answered. That is why most companies get some level of external help. Generally, outsourcing companies, consultants, and IT integrators are happy to provide temporary labor to undertake this effort.
- **Process Mining**: Leverage AI algorithms to mine your processes and understand your actual processes in detail. Process mining can provide fastest time to insights about your as-is processes as demonstrated in case studies.
- **Predictive Maintenance**: Predictively maintain your robots and other machinery to minimize disruptions to operations. Implement big data analytics to estimate the factors that are likely to impact your future cash flow. Optimize PP&E spending by gaining insight regarding the possible factors.
- **Manufacturing Analytics**: Also called industrial analytics systems, these systems allow you to analyze your manufacturing process from production to logistics to save time, reduce cost, and increase efficiency. Keep your industry effectiveness at optimal levels.
- **Inventory & Supply Chain Optimization**: Leverage machine learning to take your inventory& supply chain optimization to the next level. See the possible scenarios in different customer demands. Reduce your stock, keeping spending, and maximize your inventory turnover ratios. Increase your impact factor in the value chain.
- **Robotics**: Factory floors are changing with programmable collaborative bots that can work next to employees to take over more repetitive tasks. Automate physical processes such as manufacturing or logistics with the help of advanced robotics. Increased your connected systems by centralizing the whole manufacturing process. Lower your exposures to human errors.
- **Collaborative Robot**: Cobots provide a flexible method of automation. Cobots are flexible robots that learn by mimicking human workers' behavior.
- **Cashierless Checkout**: Self-checkout systems have many names. They are called cashierless, cashier-free, or automated checkout systems. They allow retail companies to serve customers in their physical stores without the need for cashiers. Technologies that allowed users to scan and pay for their products have been used for almost a decade now, and those systems did not require great advances in AI. However, these days we are

witnessing systems powered by advanced sensors and AI to identify purchased merchandise and charge customers automatically.

- **Invoicing:** Invoicing is a highly repetitive process that many companies perform manually. This causes human errors in invoicing and high costs in terms of time, especially when a high volume of documents needs to be processed. Thus, companies can handle these repetitive tasks with AI, automate invoicing procedures, and save significant time while reducing invoicing errors.

Finance & FinTech

- **Fraud Detection**: Leverage machine learning to detect fraudulent and abnormal financial behavior, and/or use AI to improve general regulatory compliance matters and workflows. Lower your operational costs by limiting your exposure to fraudulent documents.
- **Insurance & InsurTech**: Leverage machine learning to process underwriting submissions efficiently and profitably, quote optimal prices, manage claims effectively, and improve customer satisfaction while reducing costs. Detect your customer's risk profile and provide the right plan.
- **Financial Analytics Platform**: Leverage machine learning, Natural Language Processing, and other AI techniques for financial analysis, algorithmic trading, and other investment strategies or tools.
- **Travel & expense management**: Use deep learning to improve data extraction from receipts of all types including hotel, gas station, taxi, grocery receipts. Use anomaly detection and other approaches to identify fraud, non-compliant spending. Reduce approval workflows and processing costs per unit.
- **Credit Lending & Scoring**: Use AI for robust credit lending applications. Use predictive models to uncover potentially non-performing loans and act. See the potential credit scores of your customers before they apply for a loan and provide custom-tailored plans.