

# Exploring AI's Different Forms and its Use Cases in Customer Success

## Introduction

In recent years, artificial intelligence (AI) has evolved from a niche area of technology to a major force in the broader tech landscape. This transformation is marked by growing public interest and increased industry investment, with AI emerging as a disruptive force in various domains, also in customer success. The excitement around AI is well-founded, as it fundamentally changes how businesses interact with and serve their customers. However, it's crucial to recognize that AI isn't a single technology but a family of technologies that do something similar, but different.

One aspect of AI's newfound accessibility, particularly in generative AI, is its ability to communicate in natural language. This advancement has made it more user-friendly and approachable. Generative AI, trained on extensive world knowledge, offers context, insight, and reasoning in ways that are intuitive and easily understandable. This is particularly vital in customer success, where clear and effective communication is essential.

Another key player in this landscape is Natural Language Processing (NLP). NLP enables AI to understand and interpret human language, making it a powerful tool for sentiment analysis in customer interactions. This capability allows businesses to gauge customer emotions and sentiments effectively, providing an additional layer of understanding in customer relations.

In this blog, we will explore three pivotal AI technologies reshaping customer success: predictive AI, generative AI, and NLP. Predictive AI leverages historical data to anticipate future customer behaviors and preferences, helping businesses proactively address customer needs. Generative AI pushes the limits of creativity, offering novel ways to engage with customers. Meanwhile, NLP provides the nuanced understanding of customer communication, essential for fostering strong customer relationships.

Understanding the subtleties of predictive and generative AI, along with the insights offered by NLP, is crucial for anyone looking to harness AI for improved customer success. We'll delve into their unique features, practical applications in customer relations, and their wider implications for the future of AI in business. Join us on this enlightening journey to discover how these forms of AI are transforming the realm of customer success.

## Section 1. What is Descriptive AI

### Definition and Fundamentals

Descriptive AI refers to the aspect of artificial intelligence focused on analyzing historical data to understand and interpret past behaviors, events, and outcomes. This form of AI is foundational in the AI spectrum, as it deals with data aggregation, processing, and basic analysis.

### Key Characteristics

1. **Data Aggregation:** It involves gathering and compiling data from various sources to create a comprehensive dataset for analysis.
2. **Pattern Recognition:** Descriptive AI identifies patterns, trends, and correlations within the data. This includes recognizing recurring themes, anomalies, or consistent behaviors in historical data.
3. **Data Interpretation:** Beyond mere data collection, this AI interprets the data to provide insights into what has happened. This interpretation is crucial for understanding the context and significance of data patterns.
4. **Reporting and Visualization:** It often employs reporting tools and data visualization techniques to present the findings in an accessible and understandable format. These visual representations help in making the data more interpretable for human users.

### Applications of Descriptive AI

While not directly focused on customer success at this stage, Descriptive AI is used across various fields for tasks like market analysis, historical trend assessment, and operational reporting. In any sector, understanding past patterns is a crucial step towards making informed decisions about the future.

### Significance in AI Evolution

Descriptive AI forms the base upon which more advanced AI technologies are built. It provides the necessary historical context and baseline understanding that enables predictive and prescriptive models to forecast and suggest future actions. Similarly, in generative AI, understanding past data and patterns is key to creating new, innovative outputs.

### Conclusion

Descriptive AI, with its focus on analyzing and interpreting past data, is a critical component in the realm of artificial intelligence. It sets the stage for more advanced AI applications by providing a clear understanding of historical contexts and trends.

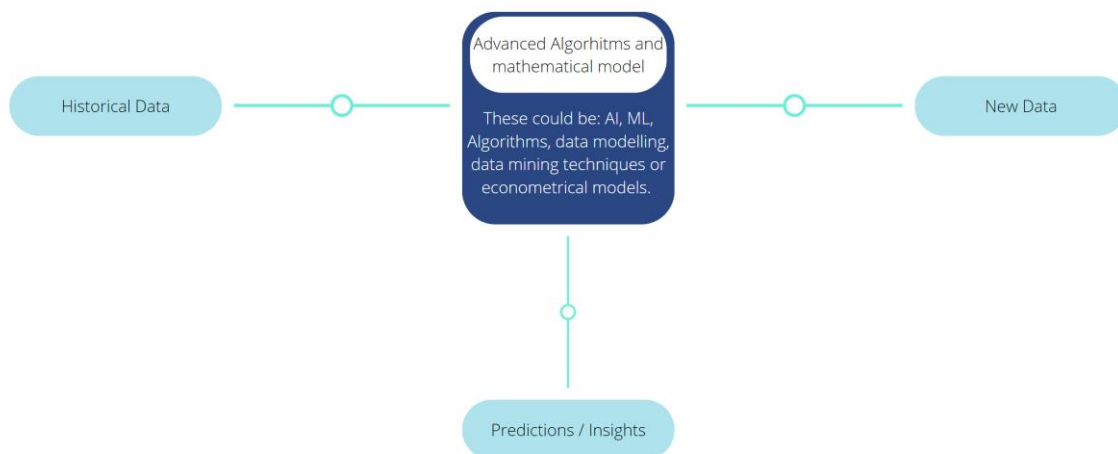
## Section 2: What is Predictive AI?

Predictive AI is a key component of artificial intelligence, primarily used to forecast future events based on historical data. While machine learning is its most common form, predictive AI encompasses various techniques and methodologies. This technology is particularly effective in customer success management, where it's used not only for predicting churn but also for identifying upsell opportunities and reactivating dormant customers. Predictive models are versatile tools that can forecast a wide range of customer-related outcomes, making them indispensable in this field.

### How Predictive AI Works

Although machine learning models are a prominent aspect of predictive AI, the field also includes other methodologies. These systems analyze past data to discern patterns, learning from customer interactions, behaviors, and outcomes. By processing large datasets from sources like CRM, support interactions, and usage data, predictive AI can uncover insights that would be challenging to derive manually.

## How Does Predictive AI work

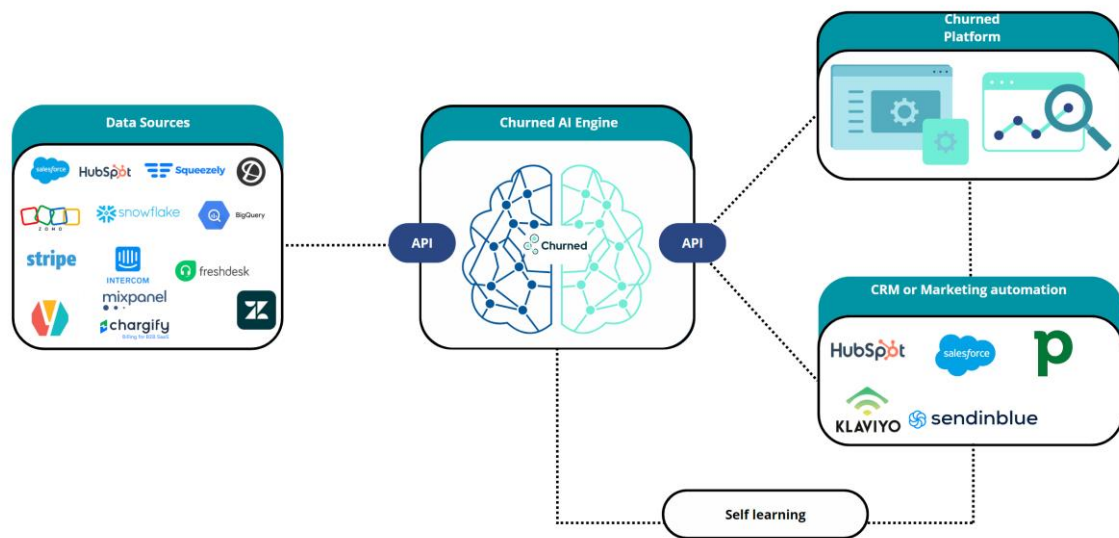


### Key Characteristics

- **Data Analysis and Pattern Recognition:** Predictive AI analyzes past data to identify patterns and trends. This analysis helps in forecasting future events or behaviors.
- **Learning from Outcomes:** It continually refines its predictions based on new data and outcomes, enhancing its accuracy over time.
- **Predictive Modeling:** Utilizing statistical techniques and machine learning, Predictive AI creates models that can predict future events with a certain level of probability.

## Applications in Customer Success

Predictive AI's applications in customer success are multifaceted. Beyond churn prediction, it can identify potential opportunities for upselling and pinpoint customers who may be reactivated. Traditionally, customer success metrics like health scores, churn likelihood, or upsell potential were calculated using rule-based methods. However, predictive AI models offer significant advantages over these traditional methods. They are faster, more accurate, less biased, and less labor-intensive. Moreover, they are highly scalable, making them suitable for handling large volumes of data and complex customer profiles.



## Case Study: Churned's Use of Predictive AI

At Churned, predictive AI has transformed the approach to customer success. By employing predictive models, Churned has been able to move beyond rule-based methods for calculating customer health and churn risk. These AI models analyze CRM, support, and usage data to predict not just churn, but also upsell opportunities and potential reactivations. This approach has led to more accurate, unbiased, and efficient predictions, enabling Churned to proactively address customer needs and significantly improve customer retention rates.

## Significance in AI Evolution

Predictive AI represents a significant step forward from descriptive analysis. It not only understands past patterns but also uses this understanding to forecast future events, making it a critical tool in various fields for proactive planning and decision-making.

## Conclusion

Predictive AI, with its focus on forecasting the future based on past data, plays a crucial role in a wide range of applications. Its ability to predict future trends and behaviors makes it a valuable asset in fields like finance, healthcare, marketing, and more.

## Section 3: What is prescriptive AI

### Introduction to Prescriptive AI

In the realm of artificial intelligence, prescriptive AI stands out as a powerful tool that goes beyond mere prediction and delves into the realm of actionable recommendations. While predictive AI can forecast future outcomes based on historical data, prescriptive AI takes the next step by providing specific guidance on how to achieve desired outcomes. This ability to prescribe the best course of action makes prescriptive AI an invaluable asset for businesses seeking to optimize decision-making and achieve their strategic goals.

### Types of Prescriptive AI

Prescriptive AI encompasses a range of techniques and approaches that utilize various data sources and algorithms to generate actionable insights. Some common types of prescriptive AI include:

**Optimization models:** These models identify the optimal solution for a given problem, considering various constraints and objectives.

**Simulation models:** These models simulate various scenarios and outcomes to assess the impact of different decisions.

**Decision trees:** These models provide a structured framework for making decisions based on a set of conditions and potential outcomes.

**Reinforcement learning:** This technique enables AI systems to learn from interactions with the environment and make decisions that maximize rewards or minimize penalties.

### Key Characteristics of Prescriptive AI

Prescriptive AI is characterized by several key attributes that set it apart:

**Data-driven:** Prescriptive AI decisions are firmly rooted in data analysis and statistical modeling.

**Actionable insights:** The AI system provides specific recommendations that can be directly implemented.

**Model-based:** Prescriptive AI models are built on a theoretical foundation and can be audited and explained.

**Objective-oriented:** The AI system aims to achieve specific objectives or goals, often defined by business stakeholders.

### Distinguishing Prescriptive AI from Predictive AI

While both predictive and prescriptive AI involve data analysis and modeling, they differ in their purpose and output:

**Predictive AI:** Forecasts future outcomes based on historical data but does not prescribe actions.

**Prescriptive AI:** Recommends specific actions to achieve desired outcomes based on predictions and data analysis.

In essence, predictive AI predicts what is likely to happen, while prescriptive AI guides decision-making to make it happen.

### Prescriptive AI in Customer Success

Prescriptive AI has the potential to revolutionize customer success by providing real-time insights and personalized recommendations to maximize customer engagement and satisfaction. Here are some specific examples of how prescriptive AI can be applied in customer success:

**Identifying at-risk churn:** Prescriptive AI models can analyze customer behavior and predict which customers are likely to churn, allowing proactive intervention to retain them.

**Personalizing product recommendations:** By analyzing customer preferences and usage patterns, prescriptive AI can suggest relevant products or features, enhancing customer satisfaction and driving up adoption.

Optimizing customer support: Prescriptive AI can analyze support tickets to identify common issues and suggest automated solutions or routing to the most qualified agents, improving customer satisfaction and reducing support costs.

#### Concluding Remarks

Prescriptive AI is a powerful tool that empowers businesses to make informed decisions and optimize their operations. By going beyond mere prediction and providing actionable insights, prescriptive AI allows organizations to achieve their goals with greater precision and efficiency. As the field of AI continues to evolve, prescriptive AI is poised to become an indispensable asset for businesses across various industries.

## Section 4: What is Generative AI?

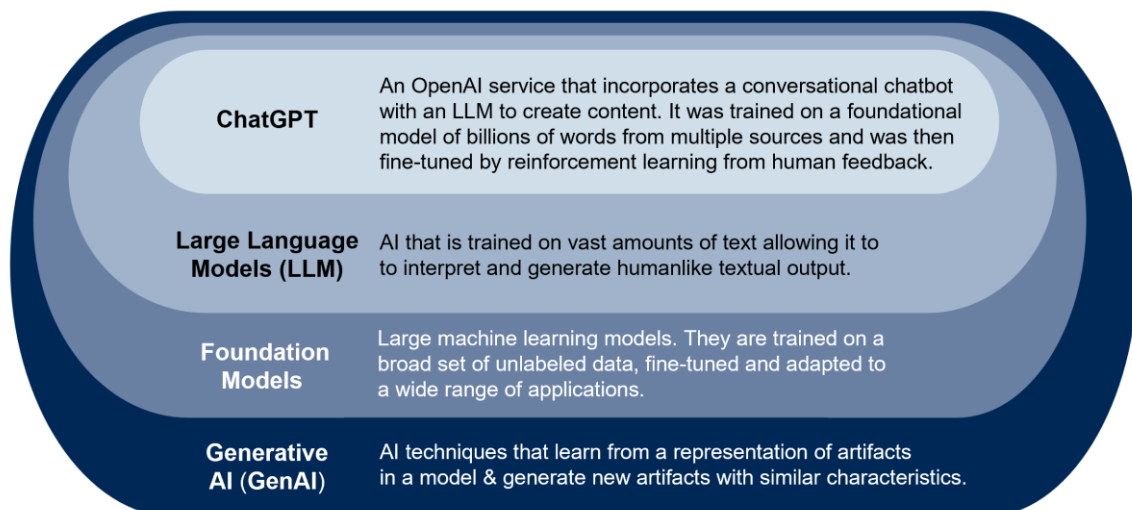
Generative AI represents a fascinating frontier in artificial intelligence, where machines are not just analyzing data but creating new content and data based on learned patterns. This form of AI goes beyond mere prediction or interpretation of existing information, venturing into the realm of innovation and creation.

### Types of Generative AI

There are several types of generative AI, each with its unique capabilities and applications. For example, natural language processing models like GPT-4 have revolutionized the way we interact with language, enabling machines to generate human-like text. In the realm of visual arts, AI-driven image generation has opened up new avenues for artistic expression. Similarly, AI models are now capable of composing music, creating melodies that resonate with human emotions. These diverse types of generative AI are redefining the boundaries of machine-assisted creativity.

### What is Generative AI

## What Is Generative AI?



Generative AI is an exciting branch of artificial intelligence that goes beyond data analysis to create new content. This AI form innovates and invents, using learned patterns to generate unique outputs.

### Key Characteristics

- **Creation of New Content:** Unlike other forms of AI that analyze or predict, Generative AI creates entirely new content, offering a unique blend of creativity and technology.
- **Learning and Adapting:** It learns from existing data and patterns to generate content that is novel and often indistinguishable from human-created content.
- **Diversity of Applications:** Generative AI has diverse applications, from creating art to generating realistic human-like text, showcasing its versatility and creative potential.

### Distinguishing from Predictive AI

While predictive AI focuses on forecasting future events based on historical data, generative AI takes a fundamentally different approach. It is not about predicting the future but about creating something new and previously unseen. Whether it's a piece of art, a novel solution to a problem, or a new piece of music, generative AI is about pushing the boundaries of what is possible, turning the unknown into reality.



## Generative AI in CS

The use of generative AI in creating customer emails represents a significant advancement in customer success strategies. It embodies the integration of technology and human expertise, leading to more effective customer interactions and stronger relationships. Churned's implementation of generative AI in email creation is a testament to the company's commitment to leveraging cutting-edge technology for enhanced customer engagement and success.

## Use case generative AI

A practical example of generative AI in customer success is its ability to reduce time spent on administrative tasks. In customer service, professionals often spend a substantial portion of their time looking for information – like details from past emails or specifics mentioned in previous meetings. Generative AI can process lengthy meeting transcripts, extracting key points and next steps, and even drafting emails to teams or customers. This application not only saves time but also ensures that crucial information is not overlooked. A recent customer success report highlighted that about 40% of a customer success manager's time is spent searching for the right information. Generative AI can be a game-changer in this aspect, significantly reducing the time spent on search and administration, allowing customer success teams to focus more on strategic and relationship-building activities.



## Section 5: Natural Language Processing (NLP) in Customer Success

Natural Language Processing, or NLP, is a groundbreaking field within AI that focuses on the interaction between computers and human language. In the realm of customer success, NLP is revolutionizing how businesses understand and respond to customer communications.

### NLP for Sentiment Analysis in Customer Support

One of the key applications of NLP in customer success is sentiment analysis. This involves using NLP algorithms to scan through customer support tickets, emails, and other forms of communication to detect and interpret sentiment. By analyzing the tone and context of these interactions, NLP can provide valuable insights into customer satisfaction and concerns. This information becomes a crucial component in calculating customer health scores, offering a more nuanced understanding of customer relationships.

### Feeding Predictive Models with NLP Data

NLP-generated sentiment scores can be integrated into predictive AI models, serving as one of the key input points. This integration allows for a more comprehensive prediction of customer behavior, including their likelihood of churn or potential for upselling. By combining sentiment analysis with other data points, predictive models gain a deeper layer of customer insight, leading to more accurate and actionable predictions.

### Churned's Use of NLP

At Churned, NLP plays a pivotal role in enhancing predictive models. By capturing sentiment from customer support interactions and emails, Churned feeds these insights into its predictive AI systems. Additionally, sentiment scores provided by customer success managers are also quantified and included in the predictive engine. This blend of human intuition and machine analysis represents a new era in customer success — what we might call Customer Success 2.0. It demonstrates how human insights, when combined with advanced AI capabilities, can create a more dynamic and responsive approach to managing customer relationships.

## Section 4: The Impact of AI in Customer Success and Beyond

Artificial intelligence, encompassing both predictive and generative forms, is not just transforming customer success; it's making significant strides in various other sectors as well. Its versatility and transformative power are evident across a wide array of industries.

### Diversity of Applications

While this blog focuses on customer success, it's worth noting AI's broader impact. In sectors like finance, AI aids in fraud detection and market analysis. In the arts, it fosters new forms of creative expression. However, our primary interest lies in how AI, especially predictive AI, is revolutionizing customer success - by enhancing customer engagement, predicting customer behaviors, and driving business growth.

### Ethical Considerations

The expansion of AI brings ethical challenges to the forefront. Concerns about data privacy, algorithmic bias, and potential job displacement are critical in customer success as much as in other sectors. Ensuring ethical AI usage means addressing these issues head-on, with a commitment to transparency and the betterment of human welfare.

### Future trends

Looking ahead, the role of AI in customer success, as well as other fields, is set to evolve significantly. We anticipate AI systems becoming more autonomous, capable of making decisions and performing tasks with minimal human intervention. This progression could lead to more personalized and efficient customer experiences and smarter business strategies. Furthermore, the convergence of AI with emerging technologies like quantum computing might open new doors for advanced capabilities in customer engagement and business operations.

An emerging trend in customer success, particularly in the B2B sector, is the adoption of personalization techniques reminiscent of B2C strategies. The future of customer success in B2B environments will likely see a shift towards more tailored and individualized approaches. This change will move away from the generic interactions that currently dominate B2B customer relations, leaning towards the more personalized and nuanced engagement typically seen in B2C interactions. AI, with its ability to analyze and utilize vast amounts of data, will be instrumental in driving this shift, enabling businesses to offer more personalized services and experiences to their B2B customers.

**By 2025:**

Generative AI will support authors, marketers and others in 50% of new content generation.

## Conclusion

As we've seen, AI in its various forms, especially predictive AI, is profoundly impacting customer success and other sectors. Its capabilities in data analysis, forecasting, and creative content generation demonstrate the significant strides made in AI technology. Understanding and harnessing these capabilities is crucial for professionals in customer success and beyond.

We encourage our readers to engage deeply with AI technologies, exploring how predictive AI, in particular, can enhance their strategies in customer success. Whether it's through adopting AI-driven approaches, investing in AI research, or staying informed about the latest developments, there is much to be gained in this AI-driven era.

For those looking to integrate predictive AI into their customer success strategies, Churned is here to offer expertise and resources. Reach out to learn how AI can be tailored to meet your unique needs and revolutionize your approach to customer success.

## Generative AI Is Changing: Innovation Productivity

Human only	Human+AI
Early pruning for an achievable solution	Exploiting the complete solution space for optimal solution
Based on individual experience and training	Relying on the whole extracted knowledge of many
Aiming for a minimum viable product (MVP)	Enabled with a minimum marketable product (MMP)
Few iterations and samples	Maximized "What-ifs per hour"
Redesign for industrialization of innovation is needed	Trained models and designs can often be used directly