

# AI at ServiceNow

Our approach to artificial intelligence and machine learning powers intelligent experiences, automation, and optimization to transform the way our customers work.



By using the AI capabilities in the Now Platform to deliver relevant information, make predictions and recommendations, and automate repetitive tasks, employees and customers can finally focus on areas humans excel at—**creative thinking, customer interactions, and unpredictable work.**

## What can you do with AI?

Here are some real-world examples of how the AI in the Now Platform improves productivity and efficiency to elevate work experiences.



**Deliver better self-service**  
Make it easy for users to get what they need with a 24/7 Virtual Agent that understands their requests in natural language.



**Detect major incidents**  
Quickly identify critical issues by proactively identifying similarities across open incidents or cases.



**Route and prioritize work**  
Classify requests so incidents, cases, and tasks automatically get to the right team, at the right time.



**Discover hidden patterns**  
Continuously group clusters of related items to uncover trends and the best opportunities for improvement.



**Optimize knowledge bases**  
Deflect tickets and reduce call volume by uncovering knowledge gaps and preventing duplicate content.



**Quickly identify opportunities to automate**  
End the struggle with how and when to turn-on automation solutions from ServiceNow and increase deflection while lowering mean-time-to-resolve (MTTR).



**Recommend actions and deliver answers**  
Connect the dots for agents by suggesting relevant tasks and content that help them solve issues faster.



**Empower users with search**  
Gain highly accurate and relevant search results for an enhanced user experience.



**Supercharge productivity**  
Deliver simple solutions to unlock efficiency for everyone across every workflow.

The Now Platform includes generative AI, machine learning frameworks, natural language understanding, search and automation, and analytics and process mining that work together to seamlessly enhance employee abilities and customer experiences.

## GENERATIVE AI THE NEXT EVOLUTION OF AI HAS ARRIVED.

Generative AI uses computer algorithms to generate outputs in a variety of content forms—unlocking near limitless use cases for the Now Platform.

### Machine learning frameworks



- Classification**  
Uses historical data to automatically apply the correct labels—category, assignment group, and priority—to incoming requests, freeing your employees to work on more meaningful tasks.
- Similarity**  
Analyzes text to find connections across incidents, cases, events, and knowledge articles to help detect major incidents, recommend relevant content, and suggest actions the agent should take.
- Clustering**  
Works behind the scenes to continuously group and describe records so you can focus on the next step—using those concepts to fill knowledge gaps, add new catalog items, or train teams with new skills.
- Regression**  
Predict time to resolution accurately so your customers know what to expect.

### Natural language processing



- Foundational NLP**  
A base level of analyzing language, NLP extracts the most important pieces of information from blocks of information and converts between speech and text.
- Natural language understanding**  
Enables you to make requests the same way you would ask another human. NLU comprehends each request by recognizing what you would like to do (intent) and all of the supporting details (entities).
- NLU Workbench**  
A no-code interface for creating and managing language models to power conversational experiences.
- Natural language query**  
Deliver immediate answers by converting plain language questions into database query code before returning the results as user-friendly lists, numeric values, or dynamic charts.
- Sentiment analysis**  
Detect and understand sentiment in human messages and determine the appropriate response to ensure the best service.
- Language detection**  
Predict the language used in requests and automatically assign to someone who speaks that language for support.

### Search and automation



- Intelligent search**  
Consumer-grade search experience delivering highly accurate and relevant results based on user context using natural, everyday language.
- Automation discovery**  
Increase deflection and lower MTTR by enabling users to identify opportunities that can be automated by ServiceNow applications.
- Intelligent document processing**  
Accelerate and automate document processing with AI models that identify, understand, and extract text and data.

### Process optimization



- Process mining**  
Maximize process performance by uncovering and visualizing hidden efficiencies and bottlenecks.
- Predictive forecasting & analytics**  
Monitor processes to anticipate trends, prioritize resources, and identify areas for improvement.



## Understanding machine learning

Machine learning is a subset of AI. It is a set of algorithms that learn from data to make predictions. It enables devices to perform tasks and make decisions without human assistance.

1

**Supervised learning** Humans create and train models. Algorithms apply what has been learned from data that has been labeled or classified to new data, to predict future events. The system provides targets for outputs after being sufficiently trained.

2

**Unsupervised learning** Sorts data and uncovers interesting patterns without teaching or guidance. Used when the information for training is not classified or labeled. Typically used to cluster groups of records or identify interesting relationships.

3

**Reinforced learning** Learns actions from rewards. In reinforced learning, learning happens by the indication of correctness at the end of a sequence. It simulates the future without historical data.



**Deep Learning** is an artificial neural network, which is an algorithm that mimics the structure of the brain with many layers. It has the ability to learn hierarchical abstractions and automatically learns the best outcome for the problem. In other words, it imitates the human brain, continuously learning and improving itself.

## Purpose-built AI for the Now Platform

The Now Platform brings the power of AI to your organization—delivering all of the capabilities, security, and analytics you need to help people get work done easier, faster, and smarter.



### Deliver and refine AI fast

Empower service owners to quickly take advantage of AI capabilities—without the need for data science expertise. We ship out-of-the-box solutions that automatically classify new records, find the important connections in your data, and uncover your biggest opportunities for improvement.

### Supercharge productivity

Experience new opportunities to inject productivity across your organization with Generative AI that's accessible to everyone. Elevate every important, product, and workflow so you can focus on the work that's most important.

### Protect and control enterprise data

Each solution is trained with your own data so you get recommendations and predictions that are tailored for how your business operates—and your information never leaves the ServiceNow cloud that you already know and trust.

### Make smarter business decisions

Connect AI to analytics with real-time insights that delivers the visibility you need to ensure prediction accuracy and show the improvements being driven across your organization by AI. Visualizing the patterns and trends across each service enables your teams to make better, faster decisions.

## Building transparent, responsible, and auditable AI

We believe AI should be accessible to everyone. But delivering technical capabilities is only part of what we do. We're fully committed to building AI that helps users do their work better, but in a responsible way.

**“ New, responsible AI practices to train and share large language models are vital to ensuring the right protocols, safeguards, and permissive licenses are in place.**

Harm de Vries  
Large Language Model Lab Lead, ServiceNow Research

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## Empowering people through AI innovation

ServiceNow is making AI available across the organization. By continuously embedding enterprise AI capabilities across the Now Platform, and partnering with industry leaders, you're armed with the tools you need to power end-to-end digital transformation.

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