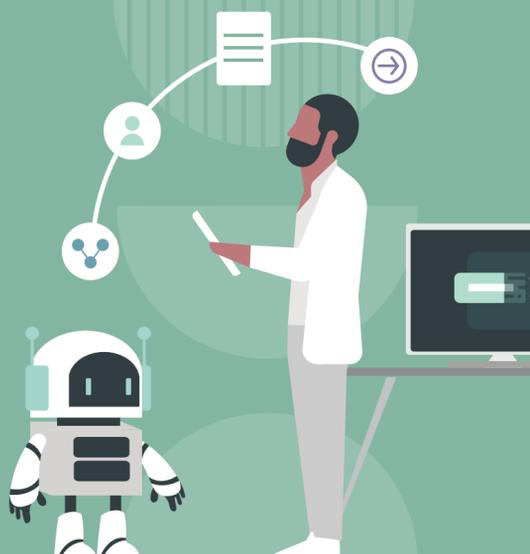# servicenow

AI at ServiceNow

Our approach to artificial intelligence (AI) and machine learning (ML) transforms the way our customers work.

By using the capabilities in Now Intelligence 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 Now Intelligence improves productivity and elevates 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.

Now Intelligence includes a set of machine learning frameworks, search and automation functions, and natural language processing that work together to seamlessly enhance employees' abilities and customers' experiences.

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, converts between speech and text, and recognizes emotional sentiment.

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 in Virtual Agent and AI Search.

Natural language query
Delivers immediate answers by converting plain language questions into database query code before returning the results as user-friendly lists, numeric values, or dynamic charts.

Search and automation

AI 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, such as Virtual Agent, Auto-Routing, Agent Assist, and so on.

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.

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.

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.

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

Now Intelligence 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.

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 deliver 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.

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