

GUIDE

Healthcare AI terminology explained

A glossary for revenue cycle leaders

As the healthcare industry becomes increasingly dependent on AI — and AI keeps evolving — it's hard to truly understand the terminology. Learn the meaning behind the lingo so you can leverage innovations that get powerful results.



INTRODUCTION

Understanding AI terminology can make or break your next AI investment

Software innovations drive every part of the healthcare revenue cycle today, from auto-generating authorization and appeal letters to predicting probability of denials and payments. Leaders are investing billions in these new advancements.

But one overlooked aspect often stands in the way of a leader's ability to adopt the right innovations for their organization — terminology.

49% of senior leaders aren't familiar with the term "generative AI"¹

38% of senior leaders said they exaggerate their AI knowledge at work¹

BUT

82% of healthcare executives now view AI as integral to their revenue cycle strategy²

9 in 10 healthcare executives say they plan to invest further in AI soon³

92% of healthcare organizations say AI is a top investment priority⁴



Despite a general familiarity with AI terminology, more than a third of senior leaders said they have exaggerated their AI knowledge at work. When it comes to AI term confusion, 72% of professionals said they were familiar or very familiar with the term “artificial intelligence,” but only 51% said the same of the term, “generative AI.”¹

If your goal as a healthcare professional is to make investment decisions that boost speed, revenue, and satisfaction using AI-powered software, you need a baseline understanding. This cheat sheet will help you establish the linguistic knowledge you need — and point you to new innovations in revenue cycle management.

INTRODUCTION

A tapestry of AI and other technologies working together

As new AI innovations are applied to the revenue cycle, they work in tandem with existing technologies to help you discover new possibilities.

Key terminology

We'll cover some new and old terms so you can see how they relate.

Agentic AI

Agentive AI

Algorithm

Artificial intelligence (AI)

Automation

Data/datasets

Data mining

Deep learning

Generative AI

Large language model (LLM)

Machine learning (ML)

Modeling

Natural language processing (NLP)

Neural networks

Normalization

Predictive analytics

Robotic process automation (RPA)

72% of healthcare organizations depend on AI to simplify tasks²



Sneak peek

See the latest ways AI is transforming the healthcare revenue cycle. Gain access to the Waystar Innovation Lab™.



GLOSSARY

Artificial intelligence

Artificial intelligence (AI) is the broad concept of enabling a machine to sense, reason, act, or adapt like a human. Essentially, it's a machine's simulation of human intelligence.

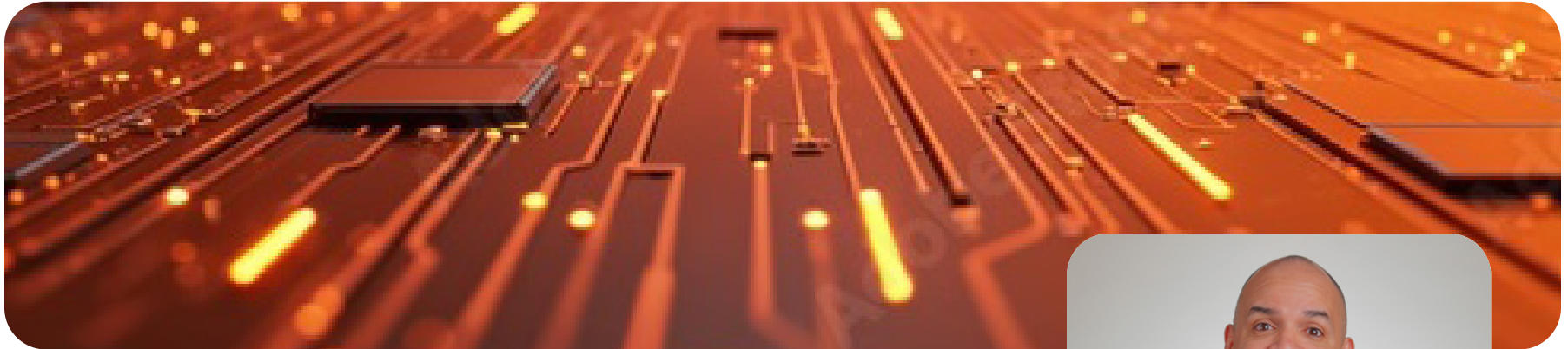
Agentic AI is an **AI** framework or system designed to work autonomously with little to no human intervention. Rather than responding to inputs, **agentic AI** works to achieve goals, plan actions, and execute tasks on its own. Within the **agentic AI** ecosystem, other types of **AI** work together, including **large language model**, **machine learning**, and **natural language processing**. This framework takes **automation** and workflow optimization to the next level.

Agentive AI acts on behalf of a human user, performing task-oriented assistance and support, like giving recommendations, rather than fully acting alone. **Agentive AI** is a collaboration between machines and humans. **Agentive AI** is helpful for communication, scheduling, and research.

Deep learning is a type of **AI** and **machine learning**, based on **neural networks**, where machines learn from new input, deciding if their own predictions are right or wrong.

Generative AI (GenAI) has a deep understanding of contextual language, interpreting **data** and creating new content with little to no human intervention. Unlike traditional **AI** systems programmed with specific rules and **algorithms**, **generative AI** is trained on large datasets and can generate new content, from text to images and music.

GLOSSARY: SUPPORTING TERMS



Large language model (LLM) is a type of **generative AI** that is trained on large **datasets** and focuses on language-based tasks only, like text generation, translation, and summarization. The time it takes to create documentation is virtually eliminated. In some cases, humans may review the content.

Machine learning (ML) uses **data**, patterns, and **algorithms** to imitate the way humans learn. A type of **AI**, **ML** uses insights to make better decisions over time and make predictions. The performance of **ML** models is directly related to the size of the **data** used to train that model.

Natural language processing (NLP) is a type of **AI** and **machine learning** that enables machines to interpret, manipulate, and comprehend human language — and communicate in a more natural way.

Neural networks are a type of **AI** that use **algorithms** to mimic the human brain and identify patterns in **data**.

Predictive analytics is a type of **AI** that searches vast amounts of **data** for patterns and uses a combination of statistical methods to predict future outcomes.



Software experts explain the difference between AI and generative AI.

GLOSSARY: SUPPORTING TERMS



Algorithms are a set of rules a computer must follow to perform a task. **Algorithms** are used in the **automation** of repetitive tasks.

Automation is the process of making a specific task work without direct human intervention to drive efficiency.

Data/datasets are raw information like numbers and words. The performance of various types of **AI** and **automation** is directly related to the size of the **dataset** used to train that model. In the healthcare revenue cycle, patient **data** should include past and present medical history, insurance claims, administrative paperwork, and medical imaging.

Data mining is used in **predictive analytics**. This process discovers useful patterns and trends in large **datasets**. Effectiveness relies entirely on proper **data** collection, warehousing, and computer processing.

Modeling is a form of **predictive analytics** that analyzes current and historical **data** and builds a model to help predict future outcomes.

Normalization is the organization of **data** so it appears similar across all fields and records, reducing redundancy and making information easy to find, use, and share. Normalization is an important preprocessing technique to prepare data for use in **automation** and **AI**.

Robotic process automation (RPA) is a type of **automation**. **RPA** is a repeatable, rule-based task that happens on its own and replaces a familiar, documented process.

What can these innovations do in your healthcare revenue cycle?

- + Decrease time-consuming, manual tasks
- + Improve staff and patient satisfaction
- + Reduce costs
- + Eliminate human error
- + Generate documentation
- + Prioritize tasks with better potential outcomes
- + Navigate payer-specific rules
- + Expedite and improve communications
- + Standardize data
- + Gain better organizational scalability
- + Enable teams to focus on skilled work
- + Forecast trends
- + Optimize task timing



“With machine learning and more AI to be able to help us, we can continue to improve not just first pass claim acceptance rates but first pass payment rates.”

Noel Juairé, VP of Enterprise Patient Access

SIMPLIFY HEALTHCARE PAYMENTS

AI-powered software

Reach new heights in healthcare payments

Waystar AltitudeAI™ leverages purpose-built AI and generative AI to elevate productivity and precision so healthcare organizations can simplify healthcare payments and yield powerful results at scale — across the entire revenue cycle.

With intuitive, user-friendly tools designed to drive accuracy and efficiency, Waystar **AltitudeAI™** is pervasive across the Waystar software platform, generating meaningful outcomes from a powerful data network. These innovative solutions empower care teams of all types and sizes, ultimately driving operational efficiency, yielding positive ROI, and enabling providers to get paid faster, accurately, and more efficiently.

90%

of healthcare organizations plan to boost AI investment in RCM soon³

75%

of organizations report positive ROI from AI in revenue cycle³



DISCOVER THE WAY FORWARD

Interested in testing new AI innovations?

Be among the first to harness groundbreaking new software innovations that streamline the revenue cycle and simplify healthcare payments by applying for the Waystar Early Adopter Program. Early adopters work with Waystar product and tech teams to explore what's possible — and bring it to life together.

Partner with AI + RCM experts

With Waystar, healthcare organizations have a partner with deep expertise in both AI and healthcare RCM. We offer access to the latest innovations and robust data that help you get powerful results. And we're always here to help — fast.

#1

rank in client satisfaction
vs. competitors⁵

50%

of U.S. patients are
in Waystar's database⁵

96%

on-time implementations⁵

<11s

to reach live support⁵



At Healthcare Information and Management Systems Society (HIMSS), Chris Schremser, Waystar CTO, spoke with revenue cycle leaders about the AI transformation in healthcare — and how to succeed.

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¹ PR Newswire. To keep up in a changing workplace, professionals feel need to overstate AI knowledge. August 30, 2023.

² Waystar + Forrester. STUDY: AI In Healthcare Payments Software: A Strategic Imperative. June 2025.

³ Waystar + Modern Healthcare. REPORT: Examining AI adoption + ROI in healthcare payments. 2024.

⁴ Waystar + Qualtrics. REPORT: Top 6 trends for healthcare revenue cycle. 2025.

⁵ Waystar data. 2025.

⁶ Third party provider satisfaction survey. September 2023.