AIOps for Business Leaders

Turn AI Into a Core Part of Your Organization with AIOps

Leverage the best tools on your AI journey,
from experiments, to programs, to core product

An Appen eBook

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Introduction

The goal of artificial intelligence initiatives is to pave the way for operationalizing AI across organizations. Once you've conducted the first successful projects and experiments, you can begin making AI a core part of your company's product/service offering.

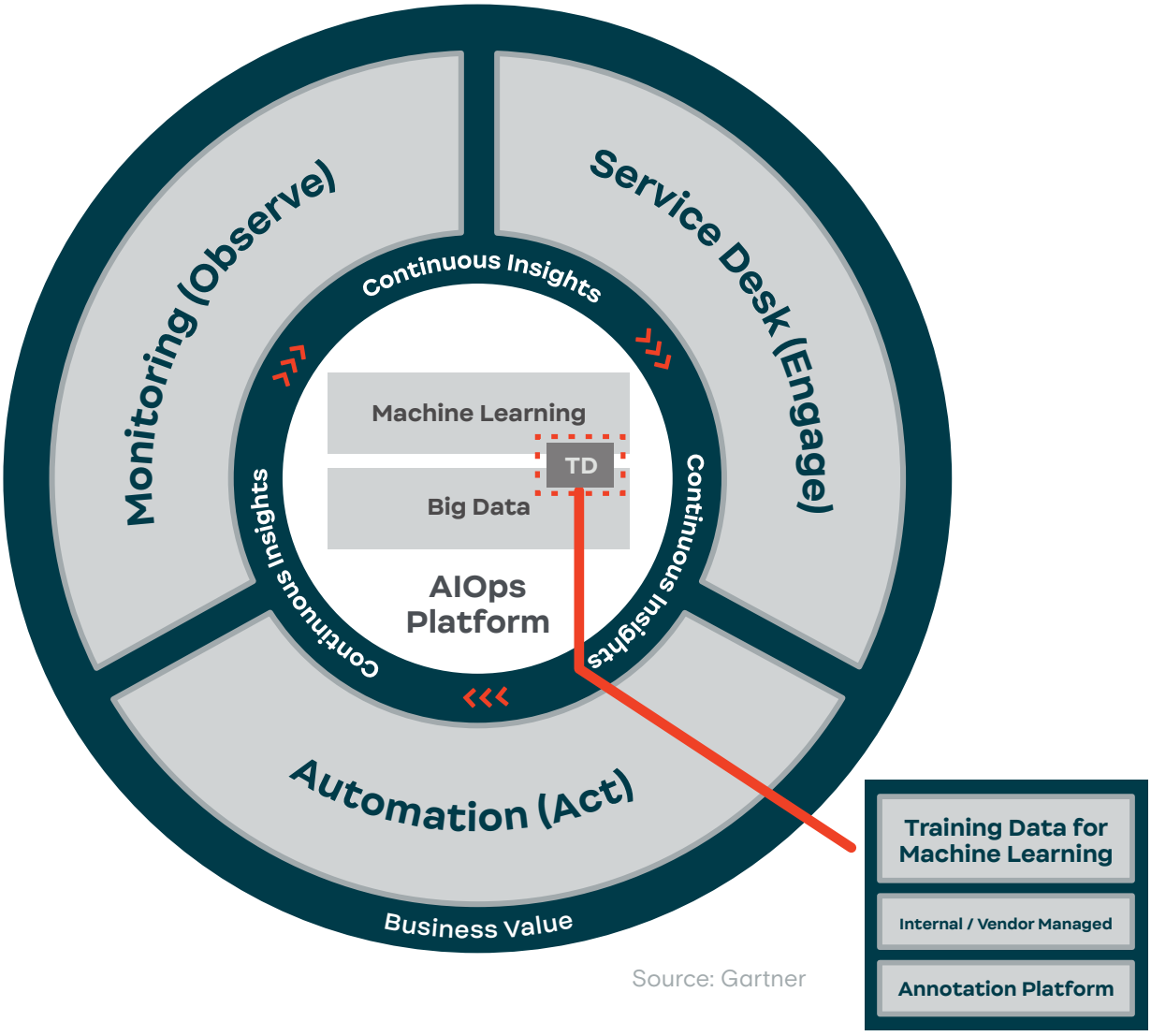
Taking AI from experimentation to production phase will require work to identify the business use case, design and track experiments, create programs, and ultimately adapt product management to integrate AI to generate momentum. Momentum necessitates building a training data flywheel: an engine that takes AI from experiment to program to core product. Building a training data flywheel requires collecting data, annotating it, and building algorithms to address a business use case.

Read our **AI Center of Excellence eBook** to learn more about how to select a use case, build teams, and manage your data to take the first steps in implementing AI in your organization, by leveraging high quality training data.

AIOps with training data at its core will power your tech stack, and, coupled with professional services to guide the entire AI-creation journey, will deliver on the increasing volume, quality, and speed requirements for training data to support business innovations and efficiencies which use ML and AI, as it becomes core to your organization.

What is AIOps?

Andrew Lerner, VP in Gartner Research, defines AIOps platforms as those that "**utilize big data, modern machine learning and other advanced analytics technologies to directly and indirectly enhance IT operations (monitoring, automation and service desk) functions with proactive, personal and dynamic insight.**"



Source: Gartner

What is AIOps?

AppDynamics likens the concept of AIOps to that of a central nervous system. In this analogy, the ML-powered correlation engine, along with its attendant dashboard, APIs, and alerting technology serves as the brain. Feeding into that bundle of proverbial nerves is data ranging from applications to infrastructure to security systems. Once the engine analyzes the information it receives, it sends the insights to the organization, which can then operationalize the information.

Visibility — Insight — Action

In practice, AIOps is often utilized for but not limited to:

"[Using] machine learning algorithms together with big data-based business operation and maintenance platforms[1]"

"[Leveraging] machine learning to enhance alarm filtering, anomaly monitoring, automated repairs, and other tasks to truly liberate operation and maintenance[2]"

1 Alibaba Tech. "Even Smarter: Achieving AIOps in the Age of Big Data." Hacker Noon. 5 Dec. 2018 https://hackernoon.com/
2 Alibaba Tech. "Even Smarter: Achieving AIOps in the Age of Big Data." Hacker Noon. 5 Dec. 2018 https://hackernoon.com/

What is AIOps?

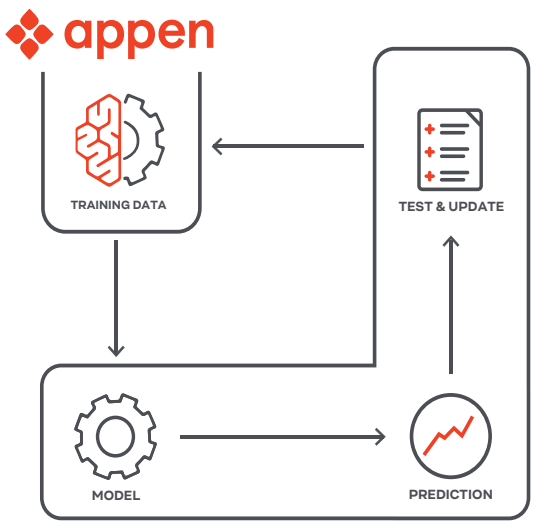
AIOps uses AI to enable your data infrastructure and apps to run smoothly and provide granular, real-time insight about application performance and IT environment health.

Algorithms usually learn from structured data. They leverage relationships, develop understanding, then make decisions, and provide a confidence rating based on the training data they're given. And the better the training data is, the better the model performs. In fact, the quality and quantity of your training data has as much to do with the success of your data project as the algorithms themselves.

For robust AIOps practices, organizations must create high-quality training data to power the big data, machine learning, and other "advanced analytics technologies" Gartner proposes make up an AIOps framework.

Machine Learning and Big Data Flywheel

To turn AI into a core part of your business, you'll need to build the flywheel to scale your training data-creation and model-building processes across other facets of your business to deliver AI from experiment to program to core product.



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To train the model, you'll need to establish a ground truth for the data with human annotators. This ground truth ensures good coverage of all the important cases in each of the datasets, along with the best possible accuracy on the specific use case.

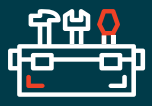
As you hone the model through training, test data to see if the model is performing well in production. Keep an eye on your performance indicators, too.

This AIOps flywheel should be a larger part of your organization's AI & data center of excellence, a topic we discuss in greater detail in our AI Center of Excellence whitepaper.

AIOps is crucial for building a scalable AI into your organization's core functions. Many companies ingest petabytes of data or more, which can be turned into high-quality training data for machine learning algorithms, given a set of business use cases.

Data-Labeling Resources for AIOps

After determining which processes and tools you'd like to improve with adopting AIOps, you can decide which solutions you'd like to use for your implementation. There are a number of **open-source frameworks** out there that streamline AI adoption.



You'll also need tools on top of your framework to create the flywheel and keep it turning. AIOps-friendly tools, AIOps-friendly tools, that are API-enabled to easily integrate with other solutions, will help establish a scalable foundation.

Together with your architecture, these tools create a data pipeline. This pipeline needs continuous attention to improve AI on the fly, such as in retraining or ongoing testing of your production software. This is where having a high quality training data API system can accelerate your AI adoption.

Building an AI flywheel is imperative for any business that wants to turn AI from project to core product. Implementing AIOps to assist the process will help improve the return your organization sees on its AI investments.

About Us

Appen collects and labels images, text, speech, audio, video, and other data used to build and continuously improve the world's most innovative artificial intelligence systems. Our expertise includes having a global crowd of over 1 million skilled contractors who speak over 180 languages, and the industry's most advanced AI-assisted data annotation platform. Our high-quality training data gives leaders in technology, automotive, financial services, retail, healthcare, and governments the confidence to deploy world-class AI products. Founded in 1996, Appen has customers and offices globally.

- **With 25 years of experience,** 15 of which in Automotive. We offer a full suite of multimodal computer vision annotation tools with in-cabin vehicle collection and NLP annotation services to help with your autonomous vehicle projects.
- **1M+ crowd in over 130 countries,** speaking 180 languages and dialects
- **Experienced team based in the heart of Motor City,** Detroit lends its expertise and resources on the ground to accelerate your product development and testing workflows.
- **Data annotation expertise** ranges including conversational assistance, point cloud labeling (LiDAR, Radar), 2D labeling including semantic segmentation, and video object and event tracking.
- **Workflows:** Our simple user interface empowers teams to build and automate multi-step data annotation projects without relying heavily on technical resources. Break complex projects down into simple jobs, then automatically route data between the jobs using configurable routing rules. String multiple jobs or models together in a branching or linear configuration. Leverage machine learning in workflows to offset costs and expedite project completion.