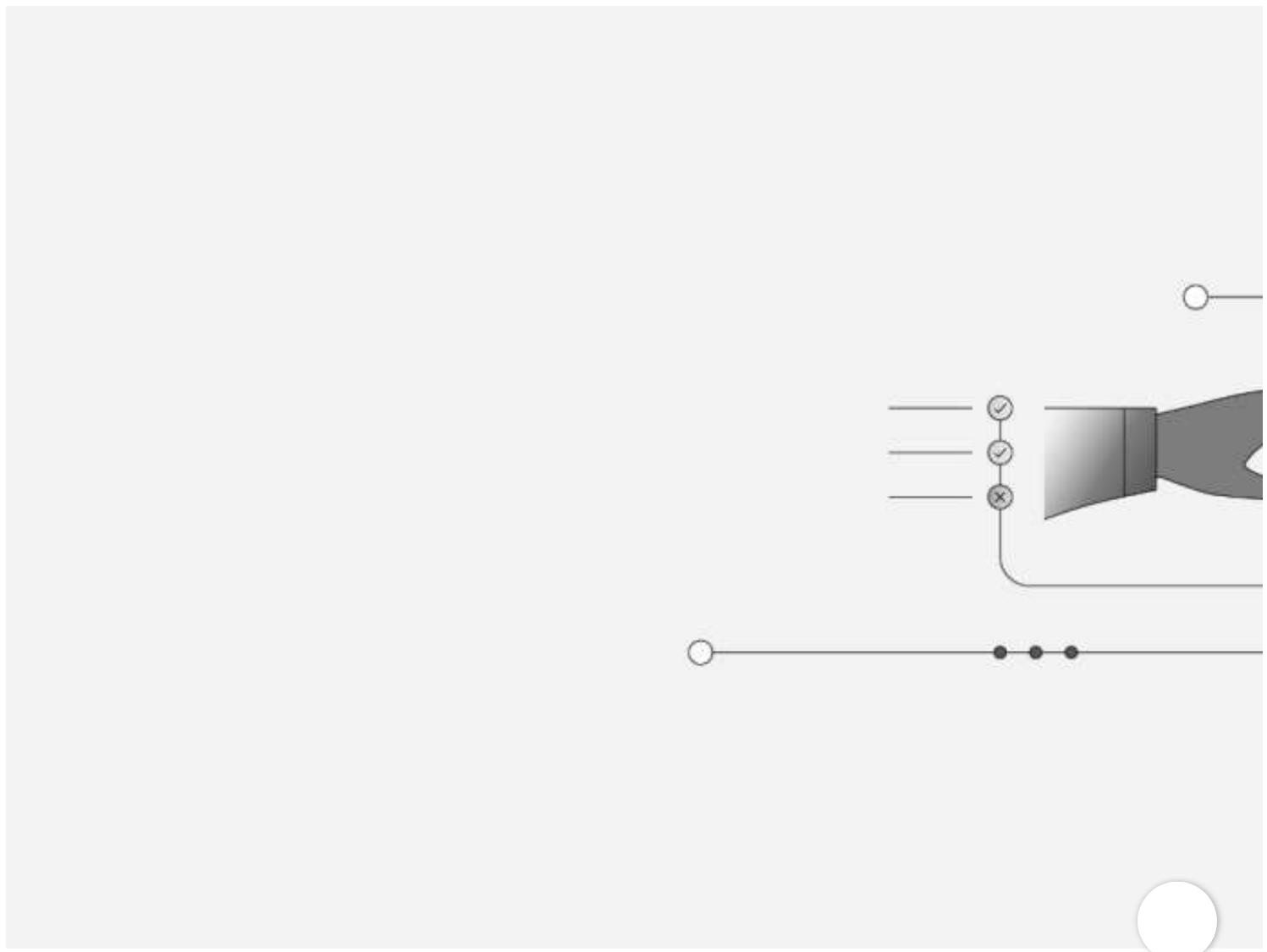


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What is AI transformation?

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Updated: 13 September 2024
Contributors: Molly Hayes, Amanda Downie

What is AI transformation?

AI transformation is a strategic initiative whereby a business adopts and integrates artificial intelligence (AI) into its operations, products and services to drive innovation, efficiency and growth. AI transformation optimizes organizational workflows by using a range of AI models and other technologies to create a continuously evolving and agile business.

AI transformations employ machine learning and deep learning models—for example, computer vision, natural language processing (NLP), and generative AI—together with other technologies to create systems that can:

- Automate manual tasks and repetitive administrative work.
- Modernize apps and IT with code generation.

- Provide data-driven insights and decision-making support by using advanced analytics.
- "Learn" from data to improve accuracy and performance over time.
- Improve the customer experience with personalization and chatbots.

As advancements in AI accelerate, AI transformation has become a significant factor in a business' long-term success. According to "Augmented work for an automated, AI-driven world", a recent report from the IBM Institute for Business Value, organizations that integrate AI into their transformation journey more frequently outperform their competitors.

Typically, an AI transformation is a more holistic endeavor than the simple replication of existing business processes with new technologies. A well-crafted AI transformation strategy has the capacity to create entirely new ways of doing business, increase productivity and facilitate sustainable growth. To realize and scale the technology, AI transformations often require businesses to change their strategies and cultures.

Report

Discover how to choose the right AI foundation model

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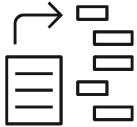
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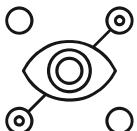
Technologies in AI transformation

An AI transformation strategy can involve any number of technologies, often requiring a broad toolkit of solutions. The specific AI tools deployed often depend on an organization's targeted business goals. Some of the most common technologies used in an AI transformation include:



Natural language processing

NLP enables computers to process human language in text or audio form. It can be used to facilitate intelligent search, analyze consumer sentiment on social media, convert material from one language to another, summarize content, or extract relevant information from large data sets.



Computer vision

With computer vision, systems can glean meaningful information from digital images or videos by using algorithms and other technologies. Applications include image classification, image-based search and object detection and search. Examples of using computer vision include identifying machinery that requires maintenance or automatically tagging images with relevant metadata.



OCR and digitization

Optical character recognition (OCR) recognizes printed or handwritten texts and converts them into a machine-readable format. OCR is widely used in digitization efforts to make unwieldy document collections simpler to edit, store, and search. OCR-converted data sets can support training and tuning AI models.



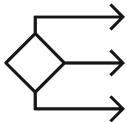
IoT integrations

IoT integrations include geolocation, which identifies the longitudinal and latitudinal location of a connected device. Geolocation supports location-specific customer interactions like zone-based pricing or targeted marketing. In an operational capacity, it can facilitate AI-assisted route planning or supply chain optimization by tracking assets and goods that are outfitted with sensors and connected to the Internet-of-Things (IoT).



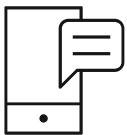
Automation

Through automation, machines perform repetitive tasks and processes with little to no human input. Intelligent automation, or AI-assisted automation, has a wide variety of uses in a business context, including AIOps and complex business process management.



Expert systems and decision support

A decision support system helps decision-makers solve unstructured problems, while an expert system solves a particular and often difficult problem. Both provide organizations with rapid, data-driven insights based on large datasets that are difficult for a single person to absorb.



Generative AI

Generative AI is a set of AI technologies that create original content—such as text, images, video, audio or software code—in response to a user's prompt or request. Gen AI relies on deep learning models that simulate the human brain. In consumer-facing applications, generative AI can create personalized content in real-time. Back-office uses include employee-facing AI assistants, code-generation software and product development and testing.



Big data analytics

Big data analytics uses large amounts of data, requiring advanced analysis techniques, such as machine learning and data mining, to extract meaningful information and value. Big data is used to train AI models, and is typically processed in a data lakehouse, where it is collected, cleaned and analyzed.

How to develop a targeted AI strategy

Organizations that embrace an AI-first mentality, rather than digitizing their business process, stand to gain a significant competitive advantage in the rapidly changing business ecosystem. And while no single standard playbook for an AI journey exists, common considerations during the early planning stages of an AI transformation include:

- **Strategy and value:** What are the use cases and objectives for an AI transformation? Which workflows are augmented, and what are the internal metrics for success?
- **Technology and data:** Which models, data and deployment strategies are best suited to the organization's strategy?
- **Experience design:** How will users, both internal and external, interact with AI?
- **Operating models:** How will an organization scale new technologies across their business?
- **Talent and culture:** How will an organization embrace a culture of AI through its training, upskilling and hiring?

Stages of AI transformation

AI transformation is a dynamic process. AI use cases and implementations look different for every company. But before an organization trains and deploys an AI, it typically follows the following planning processes to help ensure the effectiveness of its strategy:

Information gathering: During this stage, an organization performs research to gain an understanding of such tools as generative AI, machine learning, computer vision and other technologies. During this exploratory phase, stakeholders might list business problems AI can address and outline what benefits might be gained.

Assessing current resources and limitations: Before making a comprehensive plan, an organization typically audits its existing business, reviewing the capacity of its IT department and data practices.

Defining objectives: During this phase, the organization identifies which specific problems it hopes to solve, and how success will be measured during implementation.

Building a roadmap: In creating a roadmap, the organization chooses AI projects based on practical needs, determining what kind of support might be required—and which partners or vendors with AI-specific expertise should be involved.

Once these strategic planning phases have been completed, the designing, building, training, validating and tuning of an AI model can begin. Some stages that facilitate a responsible and effective AI deployment include:

- Collecting and managing data.
- Organizing data.
- Building, training and tuning AI models.

- Automating workflows and adding AI to applications.
- Infusing AI across an enterprise.

Collecting and managing data

The first phase of AI transformation identifies and harnesses the raw data that is used to train and tune an AI. It also involves determining what third-party data might be used. Often, organizations are limited by rigid architectures and data silos that require a foundational reorganization.

This process might include pulling data from various departments and subdivisions, digitizing existing records or implementing a more robust data management system. As this process requires fluency with data science, it might require hiring specialists or upskilling in-house employees.

Organizing data

Data quality and strong data governance practices are the backbone of a successful AI transformation. During this process, an organization helps ensure the accuracy and cleanliness of its data pipeline along with its findability and governing rules. This might involve automating select workflows with DataOps tools, optimizing data warehouses and infrastructure, and investing in data management solutions such as a data lakehouse.

During the organizational phase, business leaders also determine who owns the data, the data security measures in place, and the conditions for using the data. This process creates a self-service pipeline making data accessible to the right people at the right time.

Building, training and tuning AI models

Using this clean and organized data, a business can build, train, validate and tune its AI models. With sufficient internal AI engineering talent, this process can be completed in-

house. Many organizations opt to collaborate with third-party vendors with a track record of success.

During this phase, AI models “learn” from large data sets and are fine-tuned on smaller, task-specific data sets. After this initial development and testing period, validation and testing workflows are ongoing, facilitating consistency as the model continues to learn.

Automating workflows and adding AI to applications

When the AI is ready, it's integrated into previously identified workflows and applications across an enterprise. Typically, AI is used with other technologies and techniques, and deploying AI involves collaboration between IT, engineering and infrastructure teams along with other stakeholders. As AI augments routine business processes and becomes part of a business' day-to-day operations, a strong change management strategy might be necessary as roles shift across an organization.

Infusing AI across an enterprise

With the foundation of a strong automation and intelligent application practice, organizations can build AI more deeply into their business and transform how the company works. As employees expense less time on routine tasks, organization-wide changes might be required to encourage more creative and valuable labor from human partners. And at this level, more complex workflows can be entirely replaced by a combination of AI-powered tools.

The AI transformation might also include AI-assisted analysis of enterprise-level business practices, for example through delivering insights about consumer behavior or advanced forecasting. With AI fully baked into the business, an organization can also automate the AI lifecycle, increasing the speed of experimentation and building purpose-specific models faster.

AI transformation use cases

An AI transformation can improve performance across every aspect of a business. Adoption allows organizations to automate administrative tasks, facilitate hyperpersonalized customer experiences and modernize the IT process by automatically generating code.

Some use case examples include:

- IT modernization
- Customer service workflow
- Supply chain
- HR and talent management
- Sales and marketing
- Core business operations

IT modernization

AI models have a vast number of applications in IT processes and operations. AI can rapidly increase IT agility and address complex processes such as app modernization and platform engineering.

For example, generative AI can generate code, convert code from one language to another, reverse-engineer code, and drive transformation planning.

These tools can also provide augmented site reliability engineering for developers and automate testing processes—ultimately streamlining the IT process and allowing employees to focus on more creative and human-centric tasks.

Read more about AI in app modernization 

Customer service workflows

Generative AI can transform the way customer experience is delivered, differentiating a business and giving it a competitive edge. AI tools can present customized recommendations, handle customer support at any hour of the day, and seamlessly create personalized content such as social media posts, personalized messages or website copy.

By analyzing large volumes of data and analyzing sentiment, AI can identify patterns to make predictions about consumer behavior in the future. For example, a bank might provide personalized, automated portfolio management services, or a government might automatically convert correspondences into multiple languages.

Read more about AI in customer service [≡](#)

Supply chain

Using AI, businesses can automate the source-to-pay process and manage resource needs, reducing inefficiency and waste. For example, AI tools can triage deliveries, selecting the most cost-effective and environmentally sustainable ways to fulfill orders, or analyze historical data to predict demand.

AI-driven order intelligence systems have the capacity to provide rapid insights into order management workflows, allowing business leaders to identify potential disruptions or identify problems before they arise. When combined with digital twins that replicate real-world processes or pieces of equipment, AI can optimize processes like maintenance and scheduling for increased efficiency.

Read more about generative AI in supply chains [≡](#)

HR and talent management

AI capabilities can increase efficiency and employee experience across the HR lifecycle, from improving the candidate experience to providing personalized high-quality career development advice. Using AI, businesses can automate repetitive but critical talent acquisition tasks such as job postings and interview scheduling. For current employees, AI can offer personalized feedback like performance reviews or manage requests for time off through chatbots, allowing HR leaders to focus on higher-value work.

Read more about AI and talent transformation 

Sales and marketing

In sales and marketing, AI can deliver personalization at scale, automatically generating product recommendations and consumer communications based on purchase history and other data. The technology can forecast future trends and customer behavior, allowing marketing teams to allocate resources more efficiently across the content supply chain and enhance the overall customer experience. With the use of these tools, sales professionals are empowered to dedicate time to higher value work, improving decision-making and increasing productivity.

Read more about AI in marketing 

Core business operations

AI adoption at the enterprise level has the capacity to streamline and augment a business' core operations. AI can help product development.

For example, a healthcare company might expedite new drug discovery with the assistance of an AI model that is trained to infer molecular structure.

A product team might use AI to test and optimize a product through its lifecycle. The technology can also be applied to threat management and decision support. These functions reduce incident response times and helping business leaders proactively plan for and manage future risk.

Explore more AI for business use cases 

Overcoming AI transformation challenges

A strong, responsible AI project with a carefully crafted methodology behind it can improve performance and give businesses a significant competitive advantage. But as in all digital transformations, successful adoption and tangible business impact are far from guaranteed.

According to McKinsey, while 90% of businesses the consultancy surveyed started some form of digital transformation. However, only one-third of the expected revenue benefits had been realized.¹ To fully realize the positive impact of AI, an organization might need to overcome some common challenges, including:

Scope of transformation and scaling AI

Scaling AI across a business can present a challenge, requiring decision-makers and stakeholders to invest significant time and energy to outline how the technology will integrate into their organization. As part of an AI transformation, businesses might find themselves managing large volumes of data and needing significant computing power to meet their goals.

Successful implementations typically involve extensive research into which AI models are a right fit for the organization, and significant investment in infrastructure to power AI solutions. Increasingly, organizations are considering hybrid cloud models to support wide-scale adoption and deployment.

Learn more about scaling AI →

Data governance and security

Good data governance requires that the data that is used in AI training is clean, consistent and secure. This means organizations that intend to adopt AI will become data companies as well. The inputs used to train large language models (LLMs), for instance, must be properly organized and stored—and sourced in a way that doesn't use biased or proprietary data.

Good data governance also helps ensure that the model outputs are observable and explainable. Organizations that are involved in a successful AI transformation typically monitor data activity and continuously audit their cybersecurity practices. They also encrypt sensitive data in compliance with local regulations. This phase might involve

multiple processes to increase data security on-premises, in the cloud, and in software as a service (SaaS) apps.

Learn more about data governance →

Change management

Integrating AI systems with existing IT infrastructure, workflows and business processes can be complex and time-consuming. And adopting AI involves significant organizational change and cultural shifts. Businesses might opt to invest in change management initiatives, work closely with stakeholders, and embark on partnerships with trusted third parties to foster a culture of empowerment and education.

Learn more about change management →

Upskilling and talent management

AI projects can involve various highly skilled professionals, including data engineers, data scientists and data analysts. Some organizations might decide to improve existing employees' skillsets, while others might need to hire significant new talent to help ensure a smooth and responsible AI transformation. This can involve labor from human resources departments, or carefully managed transition programs.

Learn more about human resources and AI →

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Footnotes

role-
based
generati
ve AI

¹ “Rewired to outcompete” (link resides outside ibm.com) McKinsey Digital.

assistant

ts.

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The Role of Artificial Intelligence in Digital Transformation

Written by: [Colin McMahon](#)

10/27/2023

Read Time: 6 min



The terms **artificial intelligence** (AI) and **digital transformation** (DX) are linked.

Even when organizations or thought leaders be referring to both working in tandem. AI, in

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to power the next phase of DX initiatives and software, creating opportunities and improvements not possible previously.

Since AI has myriad definitions, depending on setting and usage, we must first elaborate on its meaning as it relates to the concept of DX.

What is artificial intelligence (AI) in digital transformation?

Most often when AI is discussed in the context of engineering and manufacturing, we are actually referring to **artificial narrow intelligence**. It is not a matter of machines thinking like people, but rather sophisticated algorithms designed for a pre-defined task with a well understood set of inputs. Artificial narrow intelligence designed for CAD applications, for instance, will never have a "thought" outside those specific, previously outlined parameters.

Unlike standard automation, AI-powered processes can react to new information or unexpected changes. That is its biggest benefit. Unrestricted by predetermined outputs, AI algorithms learn from success and failure. They are capable of self-correction and can analyze data to detect incoming challenges before they occur.

Automation

- Designed for simple, repetitive tasks
- Cannot evolve or learn
- Rule-based operation
- Generates data but cannot analyze it

Artificial Intelligence

- Designed for more complex, non-repetitive tasks
- Designed to analyze and react to its environmental data
- Evolves or learns based on previous and current data
- Helps organizations analyze data
- Can identify patterns

From another perspective, automation provides optimal value when deployed in a pre-existing, well-defined process, such as established manufacturing lines. The user always dictates automation processes within the confines of a set of given inputs. AI, by contrast, is best utilized when trying to overcome

challenges that are more complex, or not defined by preset rules. If the user gives an AI a set of inputs, the AI will analyze the data and suggest the optimal course of action, or just execute it automatically (depending on the situation).

Why AI is important to digital transformation

At PTC, we believe that the greatest power of digital technology is to transform the physical world – improving productivity, innovation, and impact. To that end, AI is essential for many complex DX applications. Without it, the digitization of products and processes would produce amounts of data that no human could be expected to analyze and react to within an acceptable timeframe. As a result, if you lift up the hood of nearly any PTC product, you'll find AI powering critical applications, such as the generative design in Creo, or predictive analytics in Thingworx.

Let's use **Vuforia** for an example. Vuforia is a powerful, scalable **enterprise augmented reality** (AR) platform – but what makes it so? Well, unlike simpler GPS-based or QR/barcode-based AR programs, which rely on data stored outside the object for AR functionality, Vuforia products increasingly use **computer vision** to actually identify the hardware components the user is looking at based on shape and other visual features. To do that it needs access to a database, and it needs to be able to read the patterns in the shapes to accurately identify what the user is seeing. This creates a greater level of efficiency for the user.

For another use case, let's look at how **generative design** is used in CAD. It is no secret that many of today's engineers use 3D CAD programs (such as **Creo**) as essential tools for creating and developing product designs. While this process is definitely faster than creating paper-based copy, it still is not necessarily optimized. For instance, many engineers are given system design requirements before they begin – and in a non-AI-enhanced program they would have to build the design from scratch. Generative design uses AI to automate this complex process, automatically generating the optimum design with minimal manual input. It's a powerful behind-the-scenes technology that makes engineers faster and more efficient and results in innovative designs.

It is not enough to collect data from DX initiatives. Without an AI component, the likelihood of any collected information from various stages of the product lifecycle being utilized to improve efficiency or reduce breakdowns is low. In addition, organizations not currently pursuing AI initiatives within a larger DX strategy risk falling to digital laggard status. A 2021 study from PwC found 86% of its respondents identified AI as a mainstream technology. Roughly 33% have already started implementing limited AI use cases, while a quarter of respondents had fully enabled, AI-augmented processes in widespread adoption.

What are the benefits of AI in digital transformation?

Any technology, AI included, must be considered with an organization's profitability in mind. Companies today are already looking to apply DX initiatives in very controlled settings, where the outcome can be weighed against the bottom line. It isn't enough to simply say "using this DX technology makes this process better." Organizations should be measuring to identify exactly how and why their investments are impacting their workflows. This mindset removes ambiguity and allows executives to speak and act with greater confidence regarding company direction. With this approach in mind, we have identified four key, measurable benefits of AI in DX initiatives:

1. More effective decision-making

Important decisions, contrary to many films and shows, cannot rely solely on gut instinct. Even a seasoned leader needs access to any and all relevant data in order to reach the optimal conclusion. Time is always a factor, so this decision must often be reached with speed. AI can help identify and highlight important information regarding product performance, workflow optimization, and predictive outcomes. A well defined program can, for instance, run millions of simulations to calculate roughly how a new product should perform within the first six months of its lifecycle, based on the data available. With information like this in hand, decision makers can better evaluate what work still needs to be done, identify where potential pitfalls lie, and make more accurate estimations and predictions of the time and resources they will need to move forward.

2. Increased profitability

AI is not a replacement to human judgment, but can be a highly effective tool when it comes to optimizing time to value. Manufacturers are constantly faced with the need to more consistently deliver working products that meet any and all regulations within a set (and usually shrinking) time table. AI helps optimize product timelines in many ways, whether it is assisting in catching problems before they occur, running simulations, or fact-checking against existing proprietary data. By fully automating many time-consuming tasks such as these, AI software frees up human resources to be better deployed on the more cognitive aspects of product development, all while reducing the resources needed, thus increasing the profit margins.

3. Enhanced analytics

Data sets can be huge and complex, coming from various sources and geographical locations. In the past, it took serious time and personnel to culminate, process, and analyze this data. While humans should absolutely remain a vital part of the final analysis, AI can rapidly streamline every aspect of this process - delivering data results in a fraction of the time. For large manufacturers with numerous assets spread throughout the globe, AI is arguably essential to delivering actionable insights within a timely manner.

4. Holistic view of the customer

The digital world is built on data, and what that data is and where it comes from is constantly changing. In the past, tools like cookies were used to help organizations gain insight into consumer behavior. Now, however, privacy concerns and other factors have led to a steep decline in cookie usage, so companies will need new tools to better understand how their customers are behaving. AI-enhanced software can and likely will be this next iteration, helping decision makers see their customers arguably better and more comprehensively than cookies were able to do.

How AI drives digital transformation initiatives

Given these benefits, it's not a shock to see why AI already is and will continue to drive DX initiatives across a wide range of industries. To better illustrate, let's

look at two specific ways AI makes a difference: automation and data analytics.

Automation

Automation has always been as good as the program controlling it. Yes, a machine can automate certain assembly processes, but the work stops very suddenly if this machine doesn't know it's connected to a larger assembly line, or which process comes next. Software has been guiding automation for some time, and AI programs like machine learning have been optimizing automation for years - and we expect this to only continue. Automation is a crucial aspect of DX, because with automation often comes visibility. Once a company has automated a process, they understand it fully, they can see the average completion time, average down time, and other crucial details.

Now, apply a well-designed AI application, such as machine learning, to better understand this data, understand where the bottlenecks are, why/when the downtime most frequently occurs, and not just for one automated system but the entire ecosystem. This information comes from software yes, but from IoT sensors, edge computing devices, service reports, and many other aspects already frequently dependent on DX technology. By implementing the right AI tools into existing DX deployments, organizations can see even more benefits.

Data analytics

As said before, AI and data analytics greatly complement one another. Important information comes from many sources, even before the product is launched into the real world. With the help of AI, companies can start to fully utilize the power of the **digital thread**, a connected closed loop of data that comes from a product during every stage of its lifecycle, from design inception to end-of-life service. This plethora of information provides unprecedented levels of product understanding and PLM optimization opportunities.

But data that comes from this many sources must be aggregated as quickly as possible, and AI simply can compile information faster than any human can. It may not understand what it's looking at, but AI can surface any and all relevant information to make the right decision. For one quick example, please see this video from Open AI on how data can be quickly compiled into a readable chart:

Data Science with OpenAI Codex



How AI works with the cloud to empower digital transformation

Frequent readers or current clients of PTC may have noticed a shift in our messaging as we promote the increasingly **cloud-based nature** of our software. AI is part of the reason for this shift. AI needs processing power and most organizations do not have the space on-premise for extensive server rooms. **Software as a Service** (SaaS) products like **Onshape** and **Arena** make special use of AI, as the larger the database, the more capable and efficient the AI becomes.

SaaS solutions, which place the vast majority of computer processing in the cloud, give the benefits of AI without so many burdens. AI is key for companies becoming more **agile** and more reactive—even predictive—in their problem solving. A traditionally automated solution does not need the cloud the same way AI does, but it also is not utilizing nearly the same amount of computing power to analyze the data in way that will give a competitive edge. For more information on just what impact this will make, please see this highlighted video from LiveWorx 2021:

LiveWorx 2021 Episode Two: The New Frontier of Product Development



Real-world use cases of AI and digital transformation

Decision makers understand the value of technology, but they tend to be sold on its practicality. AI is not a "couple years" solution or even "a couple months" solution, it is actionable now and many organizations are already using it to augment their offerings and improve internal workflows. Here are three quick examples of AI working within DX initiatives to improve operational efficiency:

1. Customer service

Chatbots are nothing new and remain the most common form of AI customer service many people think of. Chatbots can be effective but they are often extremely limited, simply matching a customer query to one of many preset answers. These presets are often made from the most common Q&A, so they can solve a great deal of customer questions, but nowhere near all. Large language models—such as ChatGPT—by contrast, are more advanced.

These new models do not rely on any presets. Instead, the value of a large language model is often tied to the information it is pulling from. ChatGPT, while impressive, cannot tell truth from fiction, so its dependability is directly linked to where its model comes from. A large language model pulling from

the entire internet may not be helpful, as there could be conflicting and false information present to dilute actual answers. That said, this new form of generative AI can be toolled to much more specific language models. For instance, PTC could create a ChatGPT-like program that only draws information from PTC and related websites. This means it is only scanning for information from approved sources, and its knowledge is far more likely to be accurate.

This new wave of chatbots will be able to react to the customer and answer them directly. It still isn't a perfect system, but it is a significant step up from earlier preset-based chatbot models.

2. Manufacturing

Manufacturing in its broadest sense has many segments and many areas where AI can be applied, so for the sake of brevity, we'll focus in on smart manufacturing. Smart manufacturing, as its name suggests, is the application of smart, connected technology (including AI) to facets of traditional manufacturing. For instance, failure prediction: Understanding when and where machinery will break down to better equip and prepare technicians. Without failure prediction, organizations are purely reactive to downtime, a stance which often lengthens the period of inactivity and exacerbates the costs associated with every single failure.

While humans are certainly capable of calculating failure predictions, it is an intensive process. AI, in smart manufacturing, can instantly read and analyze the data and offer human operators strong indicators of when and where machine failures will occur. This lets companies be more strategic and more proactive in maintenance operations, and greatly increases first-time-fix rates. Of course, AI goes far beyond this role in smart manufacturing and, to see more, please have a look at this PTC webinar on AI in the production space:

AI In Production: Enabling Traceability and Quality Control for Smart M...



3. Healthcare

Preventative maintenance saves dollars in manufacturing. Advanced, AI-powered, healthcare analytics can save lives and improve preventative healthcare—solving problems before they become life-threatening. AI can be used to analyze millions of X-rays in seconds, helping to identify issues that even skilled technicians might miss. The same is true with CAT scans, ultrasounds, and essentially every other piece of data. All of it can be analyzed against a much larger set of results, helping doctors detect patterns and formulate treatment strategies with higher levels of information.

What is the future of AI in digital transformation?

The effects of AI in DX efforts are already felt today at multiple access points. Engineers designing CAD files with generative AI can see automatic updates in their design parameters, which opens up new design possibilities, including viable alternatives not considered before—but, when used, may be lighter, reduce material cost and save on part construction and deployment.

The executive trying to improve efficiency across her multi-location organization has access to analytics offered by the AI platforms, rather than just a surplus of data. With it, she can better execute an AI enterprise strategy.

Improvements include greater visibility into company initiatives (either at the corporate or departmental level), which can accelerate the approval and production processes for new products and solutions, thus shortening time to market without bypassing key steps.

Going forward, PTC expects to see more companies embrace AI in their DX initiatives to maintain a competitive advantage. AI is integral to some of our most exciting products and will continue to power PTC solutions for years to come. This is not about replacing people with computer software. It is about efficiently analyzing and acting upon cloud-based data, giving people the tools they need to succeed today and tomorrow.



Tags: Digital Transformation Industrial Internet of Things Augmented Reality CAD Product Lifecycle Management (PLM)

About the Author

Colin McMahon

Colin McMahon is a senior market research analyst working with PTC's Corporate Marketing team, helping to provide actionable insights, challenging perspectives, and thought leadership on trends, technologies, and markets. Colin has been working professionally as a research analyst for many years,

and he enjoys examining and evaluating just how large the overall impact of digital transformation technologies will be. He has a passion for augmented reality and virtual reality initiatives and believes that understanding the connected ecosystem of people and technology is key to a company fully realizing its potential in the 21st century.

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