

Artificial Intelligence (AI) and Business Software Development

10 Jul 2023 by [Amanda Ebdon](#)

AI is already well and truly among us. Businesses are already benefiting from the infinite capabilities of this new technology and yet we've barely begun to tap into the opportunities it brings. Enterprises of any size look to software to enhance efficiency by streamlining business processes, automating tasks and using data analysis to gain valuable insights for business development. AI is transforming the way these software solutions are developed, offering clients unprecedented opportunities to get ahead of competitors.



Some examples of how AI is currently being applied to software solutions are:

- **Intelligent Task Automation**

Repetitive and mundane tasks, such as data entry, document processing, and customer support are already often automated as part of business software functionality. AI takes things a step further by using machine learning algorithms to analyse and learn from existing workflows. This enables the software to identify inefficiencies and recommend improvements to reduce errors and maximise efficiency.

Advanced techniques such as Optical Character Recognition (OCR) are used to extract data from documents such as invoices and forms. AI algorithms then enters, processes and

organises the data far faster and more efficiently than previously possible.

- **Data Analysis**

AI algorithms can quickly analyse huge volumes of data and identify unapparent trends and patterns. This is particularly useful for [Business Intelligence software](#) and [ERP applications](#) where business rely on this information to make critical business decisions which optimise operations and identify opportunities for growth which may previously have been missed.

By applying machine learning techniques, historical data can be used for predictive analysis. This helps businesses to become more proactive when considering customer behaviour, demand planning and risk assessment. It is also hugely beneficial to marketing campaigns and to improve customer experience.

- **Customer Experience Innovation (CXI)**

AI-powered business software uses algorithms to analyse customer data such as purchase history, browsing behaviour and demographics for example. It then uses this information to generate recommendations such as products or content which is personalised to individual customers. This tailored experience helps to increase user engagement and customer satisfaction.

Natural Language Processing (NLP) is the capability of AI to understand and interpret human language. Using this technology, chatbots and virtual assistants can replace human customer support staff to deal with general customer service communications and assist with providing relevant information and documentation 24/7.

AI-powered voice recognition technology enables customers to use voice commands on an interface rather than mouse or touch screen. This offers increased convenience and accessibility to the applications used making them more attractive to customers.

- **Image and Video Analysis**

AI can analyse images and videos to extract specific data. For example, image recognition can help in visual search capabilities, allowing customers to find products based on images. Software can also look for specific data such as numbers within an image and use that data to perform other tasks such as order tracking.

- **Fraud Detection**

Using AI algorithms, business software can detect suspicious transactions or unauthorized access attempts by looking for specific behaviour patterns. Continuous analysis of relevant data enables business software to identify potential fraud, preventing both the fraudulent activity and the financial losses associated with it.

So what does the future of [AI-powered business software](#) look like?

Currently, AI is expected to take digital technology out of the 2D interface and surround users in a 3D physical environment instead. For example, a virtual meeting may involve seemingly real people around a seemingly real meeting table, hundreds of miles away from their actual physical bodies.

Deep learning is a specific form of machine learning that relies on neural networks to engage in non-linear reasoning. This is likely to play a huge part in the development of business software. Older machine-learning algorithm capabilities often plateau at some point but deep learning AI models are constantly evolving and improving their performance as they collect and analyse data. As these models learn they will become more sophisticated in their analysis and interpretation of data. Predictive and real-time insights will be vastly improved, help businesses reduce risks and plan more accurately. This functionality will be the core of future [Business Intelligence](#) and [Enterprise Resource Planning software solutions](#).

Natural Language Processing (NLP) advancements suggest that conversational AI systems will learn to be more realistic and understand more complex interactions such as context and emotions. This opens up opportunities for businesses to provide faster more cost-effective customer services through [eCommerce software solutions](#).

The role of AI in business software is continually evolving and as the technology advances, new ideas to transform the way we run our businesses will emerge. These are exciting times for business software development, finding new ways to help companies change the way they do business and interact with customers to maintain their competitive edge.