5 Reasons to Make Machine Learning Work for Your Business

March 16, 2021 5 min read

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Demand for machine learning is skyrocketing. This growth is driven not only by "middle adopters" recognizing the vast potential of machine learning after watching early adopters benefit from its use, but by steady improvements in machine-learning technology itself. It may be too early to say with certainty that machine learning develops according to a predictable framework like Moore's Law, the famous precept about computing power that has borne out for nearly 50 years and only recently began to show signs of strain. But the industry is clearly on a fast track.

As machine-learning algorithms grow smarter and more organizations come around to the idea of integrating this powerful technology into their processes, it's high time your enterprise thought about putting machine learning to work, too.

First, consider the benefits and costs. It's quite likely that your business could leverage at least one of these five reasons to employ machine learning, whether it's taming apparently infinite amounts of unstructured data or finally personalizing your marketing campaigns.

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1. Taming vast unstructured data with limited resources

One of the best-known use cases for machine learning is processing data sets too large for traditional data crunching methods to handle. This is increasingly important as data becomes easier to generate, collect and access, especially for smaller B2C enterprises that often deal with more transaction and customer data than they can manage with limited resources.

How you use machine learning to process and “tame” your data will depend on what you hope to get from that data. Do you want help making more informed product development decisions? To better market to your customers? To acquire new customers? To analyze internal processes that could be improved? Machine learning can help with all these problems and more.

2. Automating routine tasks

The original promise of machine learning was efficiency. Even as its uses have expanded beyond mere automation, this remains a core function and one of the most commercially viable use cases. Using machine learning to automate routine tasks, save time and manage resources more effectively has a very attractive paid of side effects for enterprises that do it effectively: reducing expenses and boosting net income.

The list of tasks that machine learning can automate is long. As with data processing, how you use machine learning for process automation will depend on which functions exert the greatest drag on your time and resources.

Need ideas? Machine learning has shown encouraging real-world outcomes when used to automate data classification, report generation, IT threat monitoring, loss and fraud prevention and internal auditing. But the possibilities are truly endless.

3. Improving marketing personalization and efficiency

Machine learning is a powerful force multiplier in marketing campaigns, enabling virtually endless messaging and buyer-profile permutations, unlocking the gate to fully personalized marketing without demanding an army of copywriters or publicity agents.

What’s especially encouraging for smaller businesses without much marketing expertise is that machine learning’s potential is baked into the top everyday digital-advertising platforms, namely Facebook and Google. You don’t have to train your own algorithms to use this technology in your next microtargeting campaign.

4. Addressing business trends

Machine learning has also proven its worth in detecting trends in large data sets. These trends are often too subtle for humans to tease out, or perhaps the data sets are simply too large for “dumb” programs to process effectively.

Whatever the reason for machine learning’s success in this space, the potential benefits are clear as day. For example, many small and midsize enterprises use machine learning technology to predict and reduce customer churn, looking for signs that customers are considering competitors and trigger retention processes with higher probabilities of success.

Elsewhere, companies of all sizes are getting more comfortable integrating machine learning into their hiring processes. By reinforcing existing biases in human-led hiring and promotion, earlier-generation algorithms did more harm than good, but newer models are able to counteract implicit bias and increase the chances of equitable outcomes.

5. Accelerating research cycles

A machine-learning algorithm unleashed in an R&D department is like an army of super-smart lab assistants. As more and more enterprises discover just what machine learning is capable of in and out of the lab, they're feeling more confident about using it to eliminate some of the frustrating trial-and-error that lengthens research cycles and increases development costs. Machine learning won't replace R&D experts anytime soon, but it does appear to empower them to use their time more effectively. More and better innovations could result.

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If the experience of competitor businesses that have already deployed machine learning to great effect is any guide for your own experience, the answer to this question is a resounding yes.

The more interesting question is how you choose to make machine learning work for your businesses. This prompts another question, around what operational and structural changes your machine learning processes will bring. These changes, up to and including reducing headcounts in redundant roles or winding up entire lines of business, could be painful in the short run even as they strengthen your enterprise for the long haul.

Like all great innovations that increase operational efficiency and eliminate low-value work, machine learning does not benefit everyone equally. It's up to the humans in charge of these algorithms to make the transition as orderly and painless as possible. It seems there are some things machine learning can't yet do … yet.

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