

Perspective In Patterns

Autonomous vehicles should have wheeled their way to market by now. It has not quite been that straightforward – indeed, the industry currently seems less inclined to encourage self-driving vehicles than it did five years ago. Humans, it would appear, are just better at driving cars safely. Yet, in many other tasks, machines really do simplify and excel. When it comes to processing vast amounts of ESG data, for instance, machines have a distinct advantage. And some investment managers are embracing the benefits.

On the limitations of machines...

Robots can do many things. But they cannot yet drive autonomously. We were supposed to have autonomous cars by 2017 according to Elon Musk, but as we approach the next decade, we're still not quite ready. Indeed, if anything, the industry appears to be stepping back.

We are starting to realise how complex tasks like driving a car can be, and the risks to human safety should we not get it right. It's much easier for computers to beat us at chess or Go, but not so easy to drive a car. A car should not confuse a real stop board and someone on the sidewalk carrying a stop sign.

Just think, you can show a picture of two cats to a toddler for the infant child to then recognise when they see a cat in the future. Machines need hundreds of thousands of cat images for the same outcome. So, there are some things that machines are not able to do in a smarter, safer or faster way than humans.

On smart machines and their applications...

Smart machines are amplifying our cognitive strengths, helping us to get the right information at the right time. For instance, your credit card provider will stop the process very quickly if it thinks there has been a breach in your security.

Then there is the interaction with customers and employees, helping to free up our time and energy for more high-level tasks.

At Ossiam, we use machine learning for RFP questionnaires, for instance, where there might be lots of similar responses to a set list of questions.

On combining machines with ESG investing...

ESG and machine learning is the perfect match. First, it's about familiarity. Amazon already suggests our next purchase based on the purchases we've made previously. It gets better every time because it learns. It is self-taught, so it is able to highlight evolutionary patterns without human intervention.

Then there is its processing power. We might be looking at 600 different ESG indicator – machines enable us to efficiently extract and analyse information from vast ESG databases. It's flexible too, so it quickly adapts to changes around a companies' ESG policies, or if there's a change of regulation.

On the issues with a black box model...

For algorithms to work effectively, you need to put the proper data in. But you must also explain what's coming out of the box and why. Just as you have a right to ask your bank why your bank loan application was rejected, so we, in the asset management industry, need to explain the outcomes of the machine learning tasks – especially when the results are counterintuitive or controversial. It's then up to us to sustain the responsible use of machines. If we don't, further regulation is likely to come in to make sure we do so.

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Bruno Poulin
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“ Smart machines are amplifying our cognitive strengths, helping us to get the right information at the right time. ”

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