



Man + Machine in Investing

December 4, 2017

Human experience and decision making in the investment arena can be improved upon with technology, and an immediate application may be in analyzing the investment processes and exposing one's cognitive biases.

We're already seeing technology, such as artificial intelligence, machine learning, and robotics, disrupt in a broad array of industries as diverse as healthcare, automotive, and even professional services. CPAs are being disrupted by robo-accounting, for example.

Even consulting isn't immune, with McKinsey & Company rolling out technology-based analytics tools that can be embedded at a client, providing ongoing engagement outside the traditional project-based model.

It seems naïve to think we would not see the same disruption in the asset-management industry. Couldn't we use some of the same tools in our fundamental stock-selection and portfolio-construction processes to keep ourselves from being disrupted?

Most analysis of investment strategies using machine learning or artificial intelligence as a means to stock selection have found the efficacy to be extremely short-term in nature— i.e., effective only in high-frequency trading applications.

Thus far the ability to use these techniques to determine longer-term fundamental stock performance is limited. However, rather than applying these technologies directly to stock selection, we may be able to use them to learn more about our investment processes.

Specifically, if we can apply better analytics around our previous decision making, we can better understand our cognitive biases as investors and use that information to increase efficiency and avoid taking unwitting risks.

We now have the ability to collect massive amounts of data about market and stock prices, stock and company attributes, and our own investment behavior and actions. Once we have that data, we can apply business intelligence, machine learning, and artificial intelligence.

Furthermore, we can apply other technology such as neural networks, natural language processing and the like to gain insights from unstructured data. Together, this data and analysis will allow us to better visualize the investment process and potentially improve outcomes.

In sum, I don't advocate replacing the person with the machine, but if we give the person a better machine, we can likely come up with better risk-adjusted outcomes.

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