AI-powered ESG: Our chance to make a real difference?

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Abstract

The power of AI can lead to efficient extraction and interpretation of ESG-related data. Making such data available in a timely fashion can give more credibility to and empower the various ESG indices to monitor and track companies better. In turn, this enables investors to make more informed investment decisions on companies that are truly ESG-compliant and shun those that pretend to be.

AI-powered ESG: Our chance to make a real difference?

It is perhaps understandable as to why some people are sceptical about artificial intelligence (AI). First, media and research reports often illustrate how machines will be taking over our jobs, resulting in the elimination of the work positions currently held by many. Second, in many instances, AI remains a "blackbox". Typically, in machine learning, we can only see the inputs and outputs but are clueless on how those inputs are being combined to reach the results. Put differently, machines turn the input into output in ways that are completely unobservable to us. Applying blackbox algorithms in various aspects of public lives such as justice will have deep social and ethical ramifications. The development of machine learning technologies is charging full steam ahead. Yet, the methods for monitoring and troubleshooting them are lagging behind.

Third, it appears that some companies, especially the technology giants, have doubled down on AI to increase their profitability, often at the expense of public interest. For example, Google is arguably extracting a staggering amount of data on users' private lives. The company then uses such data to attain accurate predictions of future human behaviour, which can subsequently be sold to markets of business customers (Zuboff, 2019). Another (better known) example is how Facebook deployed AI through Cambridge Analytica to influence voters, hence interfering with the democratic processes.

Tech for good

Yet, we should not forget that AI can also create common benefits. There is no shortage of conversations on how companies can use technologies not just to do good but also to do well. For example, there is an increasing number of discussions on using AI to help reach circular economy goals (McKinsey, 2019; Enel, 2020). Yet, the progress for technology-driven pursuit of sustainability remains slow (Tse, 2020). One reason for such sluggishness is that there remains a lack of economic incentive for companies – and their investors – to make huge investments concerning social and environmental gains and benefits. This also provides an explanation as to why, despite years of discussions on the importance of the so-called "triple bottom line" – the need to care for not just profit but also people and the planet – has hardly become a mainstream practice among today's businesses. Indeed, at the same time, there is an increasing number of socially and environmentally conscious investors.

Looking at it from this vantage point, two lessons are clear. The first is that unless investors are getting the satisfactory return, it will be difficult to get businesses to orientate themselves towards goals related to people and the planet. The second is that investors need to have timely and accurate information to make informed decisions. In this respect, AI presents a welcome and potentially extremely beneficial tool to help the latest idea in sustainability: environmental, social and governance (ESG).

A socially important asset class

Investments in ESG have fast become an important area of interest. One study points out that sustainable investments amounted to some $30 trillion in 2018, up by 34 percent from 2016 (Global Sustainable Alliance, 2019). Indeed, investors (and our societies in general) are increasingly keen to understand whether and by what means businesses are being ESG-compliant. Simultaneously, boards and managements have become cognizant that ESG is crucial to the long-term survival of their companies. It is therefore unsurprising that as much as 90 percent of investors globally are estimated already to have in place, or to have plans to develop, specific ESG investment policies (BNY Mellon and OMFIF, 2020). To guide the

selection of such investments, several ESG-based rating and index services such as MSCI, Bloomberg and Sustainalytics have proliferated in recent years.

BooHoo and ESG

Unfortunately, ESG investments are often easier said than done. Consider the example of the UK-based company, Boohoo. In June 2020, this pioneer of the ultra-fast-fashion retail phenomenon announced a £150m planned executive bonus. In 2019, the retailer waxed eloquent in its 2019 company report about its "zero-tolerance approach to modern slavery". Yet, shortly after, the company was discovered to be sourcing from a factory in Leicester in which workers were being paid as little as £3.50 an hour (compared to the National Living Wage of £8.72). Just as bad was the fact that workers were not provided with proper protective equipment against Covid-19 (Wheeler et al., 2020).
Yet, despite these malpractices, Boohoo had received a double A ESG rating from MSCI — its second-highest ranking — while being awarded a far-above industry average score on supply-chain labour standards in its ESG ranking (Mooney and Nilsson, 2020). MSCI is not alone in ranking the fashion retailer highly, however. A review of nine other different ratings placed Boohoo in the top 25th percentile of more than 19,000 companies considered worldwide (Haill, 2020).

Ratings shortcomings

How could the rating companies have got it so wrong? The answer: information asymmetry. It appears that all parties involved face different challenges when obtaining and quality of information. To begin with, rating producers and indices deploy their own proprietary methodologies and data to analyse companies. The result of them using different ESG definitions, measurements and weightings for different indicators often lead to conclusions and verdicts that can be distinctly different from one index to another. Furthermore, they rely heavily on information provided by the companies being rated, essentially allowing the latter to feed only favourable data, potentially creating huge biases.

This, in turn, poses problems for the investors. First, without standardisation across ratings, it is difficult for investors to compare across the indices created by different providers. Second, the fact that interpretation of data by rating companies can be vastly different, often leaving investors struggl to determine which rating or score would meet their own investment criteria or goals. Another key problem the investors face is that they rely on the rating and index producers to capture the latest information and news and to incorporate them into their ratings.

For the rated companies, even though they can select the information to be submitted, they often suffer from other problems. For example, as the rating criteria and dimensions are determined by the index producers, the companies that are keen to be seen as ESG-compliant are frequently left wondering how to improve their own ratings. There is also uncertainty over whether investors have enough information to recognize other positive – and negative – factors related to their competitors which are unaccounted for in the ratings.

In short, the problems emerge from a lack of clarity, consistency, and transparency of ESG ratings as well as information asymmetry and shortage.

AI to power ESG

One potential means of mitigating these issues is to consistently collect qualitative information quickly in order to reinforce the quantitative data already in use. Up-to-date qualitative data has the ability to not only help investors and rating producers to be much better informed but also such data can also be used to set up key inputs that could be used as the basis to form common minimum standards.

This is by no means merely a theoretical argument – a new and major initiative is underway in Asia to fashion AI into a tool to collect and process qualitative data. The AI-powered solution seeks to help stakeholders mine the vast amounts of qualitative, unstructured data through automation. Until now, gathering and gleaning insights from social media, daily local news, and freshly available reports has been a slow and labour-intensive activity, fraught with inaccurate results.

AI technology is a potential game-changer as it can act as a scalable solution that allows for speedy unearthing, collection and handling of vital information. Algorithm-driven systems can easily and effectively crawl the worldwide web and scrape unstructured data on companies from a range of sources. Subsequently, they can also swiftly parse and convert the excavated data into usable structured ones. This, in turn, allows for curated output that is valuable for all parties involved, thereby drastically mitigating the information asymmetry problem. In addition, using natural language processing technologies to perform analyses that capture sentimental, contextual and semantic factors embedded in the collected data, it will be possible to discern the tone of the information provided. Such analytical algorithms could be trained to go through a certain type of conversation and identify the tone by comparing the words used to a reference set of existing information.

Something for everyone

The benefits can be huge for all the parties in question. Investors can hence better comply with ESG requirements and make more informed decisions by incorporating ESG data into their investment strategies, for example by implementing negative/positive screening. On the other hand, rating producers are in a better position to identify and control ESG related issues and risks such as improving their company operations and supply chain due diligence. As for the rating and index providers, real-time signals can offer early warnings and timely indicators, enabling them to produce more accurate updates. Furthermore, these providers can expand the scope of analysis using AI-derived information to complement their current quantitative methods.

A chance to make a difference?

While the use of AI to drive ESG is still in its nascent stage and the results of the ongoing efforts in Asia remain to be seen, history is filled with examples of how technologies have helped attain social goals and create a better society. It is very much hoped that by investor empowerment, particularly those who are ESG-orientated, it will be possible for ESG to be a well-respected and common business practice instead of just another fad or slogan advocating sustainability. Just as with fire, AI can be a bad master but a very good servant. Using AI in the right way can no doubt help with our endeavour to raise ethical standards.

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