Companies like Google and Amazon, as well as investment funds, are pouring millions of dollars into renewable energy. The use of predictive management tools and Artificial Intelligence is becoming more and more common in this process, writes Rodrigo Villamizar.
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In 1997, the supercomputer Deep Blue, developed by IBM, beat the world's best chess player, Garry Kasparov, using a program that took three years to perfect with help from chess experts. It was an incredibly expensive, well-guarded piece of hardware, trained by humans.
In 2016, the program AlphaGo was designed and developed to challenge the world's best Go player. This program worked without human feedback, learning from itself via trial and error. This astounding capacity for self-learning reflects an exponential evolution of AI in both data flow and analysis, without the need for human interaction.
The conversation currently focuses on machines, highlighting the use of technologies such as the Internet of Things. When applied, this opens a world of almost limitless possibilities for large tech companies analysing business performance.
Through the application of these innovations to Big Data management and Smart Data Analytics, businesses such as SAP and other German firms dedicated to renewable energy asset management have revolutionised digital asset management to reach phase 2.0.
Until very recently, this management consisted of obtaining tons of data from a range of teams, sensors and accounts, to subsequently be fed into a set of algorithms, converting this data into simple instructions.
Today, AI tools such as Aristoteles are not limited to solely summarising technical data, but they also process financial information and create an all-in-one data package. This, until now, was foreign to or simply did not exist in the world of asset management.
Via the Internet of Things and Artificial Intelligence, we are now capable of correlating millions of data sets from dozens of countries, creating predictive energy simulations and indicating low-performing assets in real-time. All of this is completed directly on the screens of managers and investors, without the need for staff intervention or controlling departments.
In the 'Global Trends in Renewable Energy Investment 2016' study, carried out by the UN Environment Program, Bloomberg and Frankfurt School, it is evident that Europe has been very successful in the market for investments in renewable energy.
Europe kept ahead of the US in 2015, with RE investments amounting to $48.8 billion. The UK and Germany were the two biggest European markets, with nearly half of the

continent’s total ($22.2 billion) coming from the UK.
Following the current trend of growing investment, giant companies from outside this sector, such as Google and Amazon, and investment funds, are investing millions of dollars into renewable energy. The use of predictive management tools and Artificial Intelligence is becoming more and more common in this process.
This is due to digital intelligence making increasingly sophisticated predictions, and asset managers being able to see precisely where to act to reduce costs and improve returns. Investment funds are already employing ‘Big Data’ and self-learning software to inform investment decisions.
Nevertheless, digitalisation is unstoppable. Whoever does not join the wave will be left behind, regardless of the sector. In an increasingly competitive world, the only hope for asset managers is for their superiors to outsource automated assistants to achieve an increase in front-line productivity, which in return would reduce costs and time spent.
In just a few years, these digital platforms have revolutionised asset management in the financial, industrial and energy sectors. Yet, this is just the beginning.
It is necessary that, so the EU doesn‘t fall behind, policymakers concentrate more on the long-run and move away from subsidies in non-renewable energy sources, to make renewable energy more competitive and attractive for investment. Europe, and more specifically the EU, have the opportunity to become a leader in renewable energy.
New projects such as The Netherlands’ aim to construct the world’s largest wind farm, open the door for more innovative investments. Pairing this with innovation in AI and IoT would make the EU one of the most attractive places for RE investment.
Nobel Prize winner Rick Smalley of Rice University, who published a list of the 10 main problems facing humanity in the next 50 years, identified energy and water as the two most important issues worldwide. Promisingly, RE asset management companies have further announced their intention to apply this digitalisation to the water sector.
EU policymakers will also have to make sure to not fall behind in technology. It is important that more focus is put on the advancements of digital transformation by governments and the EU.
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