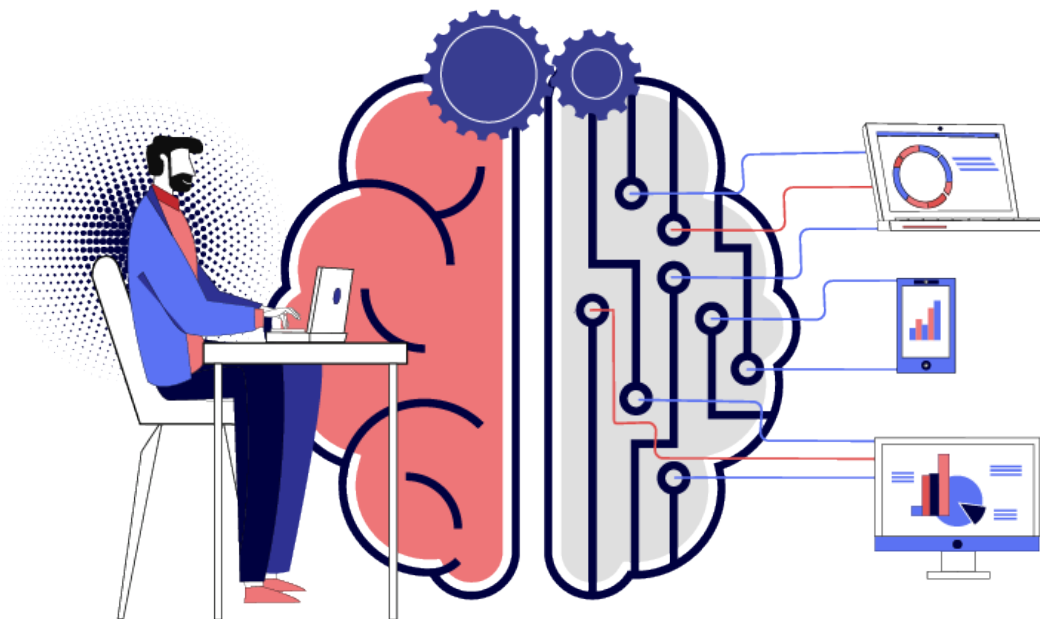


AI in ESG and Degrees of Automation



“Most innovation involves doing the things we do every day a little bit better rather than creating something completely new and different.” Darin Bifani, [The Business Warrior’s Dojo](#)

The general idea of artificial intelligence is to build a non-human mechanistic system that would be able to perform some human task, be it routine, trivial, and mundane or sophisticated and creative. In our brave new world where we produce data at exponential pace, in all domains of knowledge, such a system is not a mere figment of our imagination but a need of the hour. When we talk about our ability to collect more data in order to generate really good insights, one has to perform analysis at scale, a difficult feat to achieve with only a handful of people (read as human resources) at our disposal. It’s also not pragmatic to increase headcount, as the cost and time of acquiring, managing, and retaining this top talent grows exponentially. So, even AI systems that play second fiddle to our human analysts can drastically reduce their workload when it comes to generating real-world insights from heaps of data.

“Near-human intelligence at scale” is a phrase we coined at Novisto to explain our core vision behind adopting AI to solve ESG-related data and reporting challenges. As we rely on humans for inputs and validation of outputs generated by machines, we also fondly refer to the system as “human-in-loop”. Simply put, AI enables us to set up an automated pipeline for performing tasks that need near-human intelligence but in a highly human-regulated context.

AI and ESG

There has been a paradigm shift in what key stakeholders of a company expect. Beyond the mandatory set of financial disclosures, they now require companies to produce disclosures (currently not mandatory) related to the issues that underpin the consumption and creation of tangible and intangible resources—namely the ESG aspects of the business. The added complexity comes from both the quantum of data that needs to be processed and assimilated and the variety of data that they are expected to produce. Adding to this complexity, source information remains heterogeneous as a streamlined set of corporate sustainability reporting standards has yet to emerge (but it's coming!). Finally, information is spread over multiple documents or report types.

This is where AI comes in. First, to support human analysts in finding and processing these disparate and complex datasets. Second, to improve companies' ability—through software platform tools—to generate insights into either the quality of their data or the strength of their performance in managing key ESG issues.

Degrees of automation

At Novisto, we have created a concept of *degrees of automation* to gauge the extent to which we can involve AI in helping us scale our solution. This idea has been adapted from the world of autonomous vehicles where AI was involved in the driving-oriented decision-making process. We define three broad stages of automation, namely *Supporter*, *Collaborator*, and *Exemplar*.

Supporter is a system where AI simply supports the smooth functioning of our day-to-day activities such as identifying key pieces of information from a predetermined list of reports and mapping them to predefined metrics. In this stage, the outputs of an AI system can be closely validated by human analysts.

Collaborator is a system where AI functions in a more self-regulated and self-validated set up, where it is able to reliably and predictably perform its activities without any human intervention. This is where analysts are freed from handling mundane tasks that a machine can handle both at scale and effortlessly.

Exemplar is a system where AI goes above and beyond and performs these mundane tasks more efficiently and accurately than humans. It can add new features that help improve the way we achieve final objectives, such as improving the customer experience on our platform.

Where are we?

At Novisto, we are developing a foundational AI system that will ultimately help us achieve all stages of automation. We're only just beginning, with automating the process of ingesting source documents, identifying key pieces of data, and mapping this data to a predefined set of metrics found in ESG reporting standards and frameworks. While the outputs of our AI system continue to be validated by our analysts, we are gearing up to move into a more self-regulated and self-validated environment.

Yes, this work is complex, despite its noble cause. At Novisto, we like to believe that we are pioneering both ESG knowledge and AI capabilities in this domain—or perhaps more specifically, the combination of the two!