The advantage of artificial + human intelligence at RepRisk

RepRisk

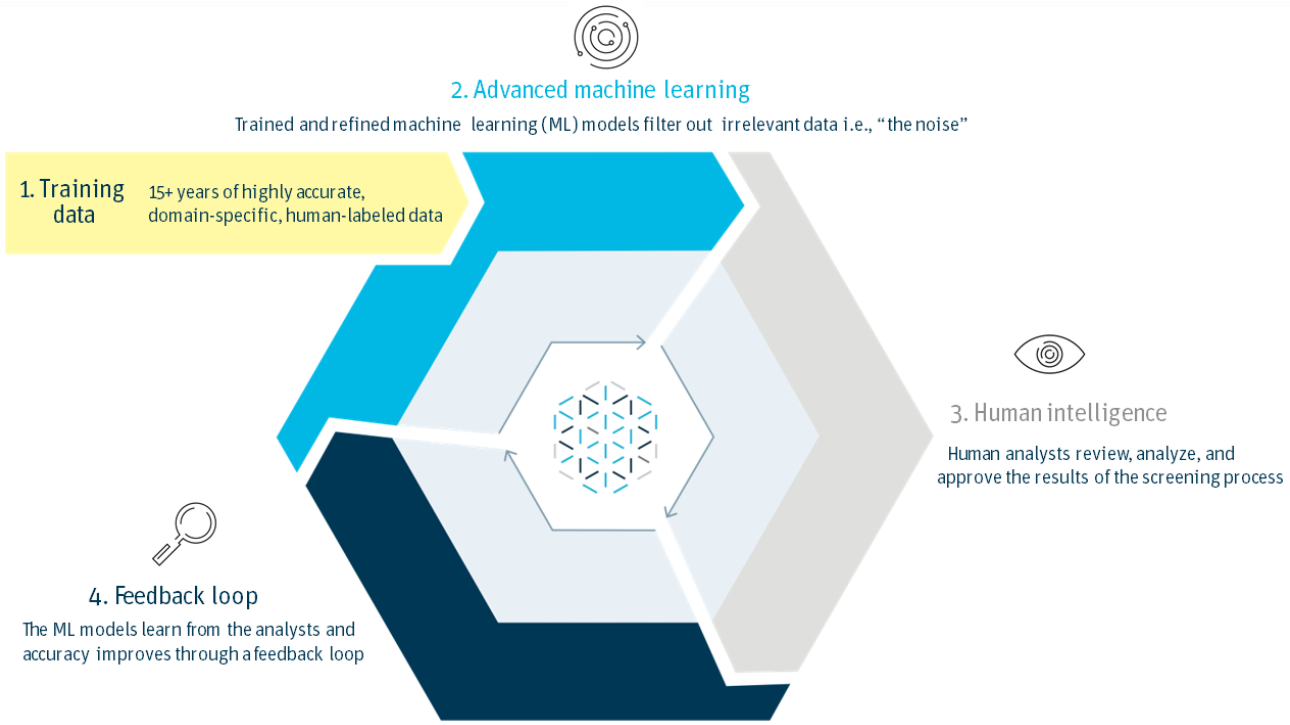
RepRisk is uniquely positioned to take advantage of the latest advancements in natural language processing, a branch of artificial intelligence focused on giving computers the ability to understand text.

The latest and most important developments in natural language processing have been made with pre-trained transformer-based language models. Bidirectional Encoder Representations from Transformers (BERT) models process natural language and identify context and meaning through an attention mechanism that mimics human cognitive abilities by highlighting relevant parts of the input data in a forward and backward direction simultaneously.

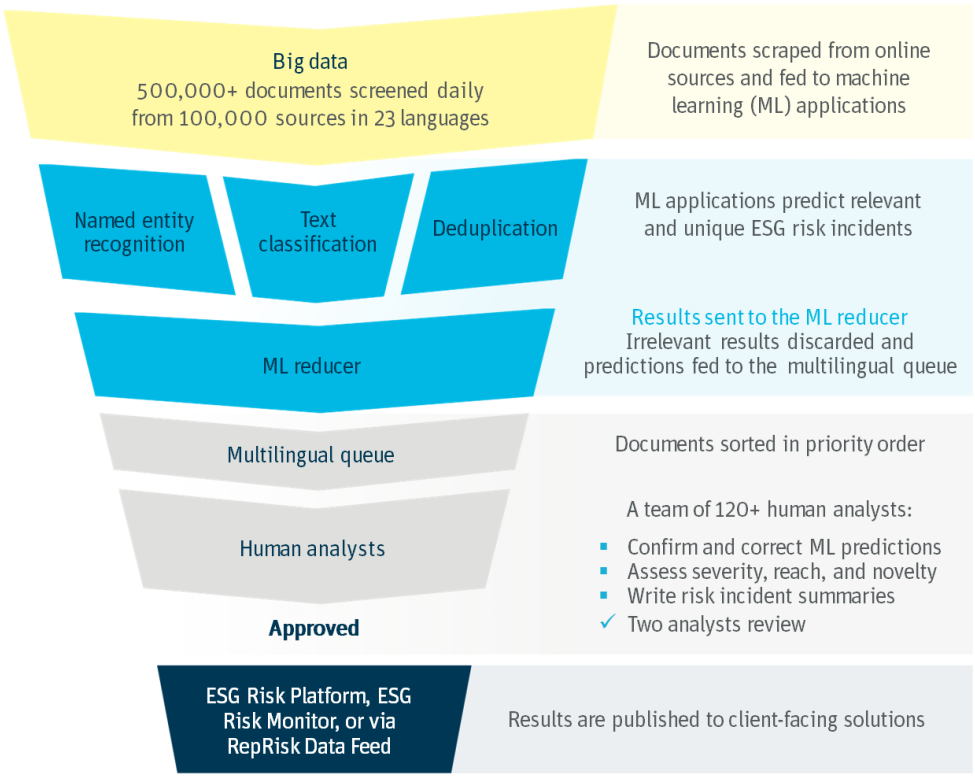
RepRisk uses 15+ years of domain-specific human-labeled data – a training set of 1 million documents – to refine the latest models to specialize in environmental, social, and governance (ESG) text analyses in 23 languages. The models are finetuned with input from our multilingual human analysts ensuring that as the landscape and language of ESG evolves, our models continue to capture the most material and decision-useful ESG information.

RepRisk has the right data and the right use case because of our unique combination of artificial + human intelligence:

- **The right data refers to our highly accurate human-labeled data, which is used for training and refining machine learning models in a feedback loop.**
- **The right use case refers to our process of scraping daily data from public sources and stakeholders, which is particularly well-suited for natural language processing.**



The RepRisk ESG risk incident journey from source to Platform



From vast amounts of data – 500,000+ documents screened daily from 100,000+ sources in 23 languages – RepRisk uses the latest machine learning models to recognize and classify ESG-related risk incidents consistent with how key international standards and norms define ESG. Documents that contain material ESG information are appended with machine learning predictions and submitted for human analysis according to a proprietary logic that ensures the most relevant ESG content is reviewed first.

Our team of 120+ human analysts supervises the machine learning process and provides a deeper analysis of ESG issues, including assessing severity, reach, and novelty of the risk incidents and providing further review in instances where, for example:

- The ESG criticism is weak
- There is no direct link to a particular company
- The source is making a political statement

This helps ensure that our data goes much further than is possible with artificial intelligence alone. Every risk incident undergoes a four-eyes approval process before being published to our client-facing solutions.

Our artificial + human intelligence approach results in the world's largest and most comprehensive due diligence database on ESG and business conduct risks.