

Greenwatch-shing: Using AI to Detect Greenwashing

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The rise of fake news on the Internet has shown that society has few defence mechanisms to cope with misinformation as well as limited abilities to regulate its attention towards inaccurate or sometimes outright false claims, no matter the topic of such content.

The rise of fake news has resulted in a wide discrepancy between the attention given to the scientific understanding of an issue versus misinformed and sometimes purposefully disinforming claims (false information that is purposely spread to deceive people) coming from outside the scientific community. One such example relates to climate change, where a nature study shows that climate change contrarians are featured in 49% more media articles than scientists¹, despite the overwhelming consensus in the scientific community over the significance of anthropogenic climate change. In addition, many companies worldwide make inaccurate and often misleading claims about their environmental and social performance, which in turn has led to the widespread practice of greenwashing.

What is greenwashing?

Greenwashing is a broad umbrella term for different forms and practices of misleading communications of different organisations, in relation to their performance on environmental, as well as broader Sustainable Development Goals ("SDG") related indicators. The different forms of greenwashing include, but are not limited to selective disclosure, symbolic management, deflection of public attention and the disconnect between claims of companies and their lobbying and investment activities. Greenwashing can range from slight exaggeration to full fabrication.²

Why is greenwashing detection important?

The most direct impact of greenwashing is that it hampers the accurate measurement as well as meaningful progress towards SDGs. Both the EU Commission and the Irish Government have called for sustainable finance policy that discourages greenwashing but so far, there are no tools to detect the type and extent of greenwashing practices across different types of organisations and SDGs. Furthermore, in the Ireland for Finance 2025 strategy for the Irish financial sector, the government envisages that Ireland could develop a sustainable finance and greenwashing detection industry, in a similar manner that Ireland's anti-money laundering detection services have in the past.

In the context of climate change mitigation, society may develop a false sense of comfort that climate goals would eventually be reached, but in reality, that would be far from the truth given the distorting effects of greenwashing. This would indeed lead the world towards a catastrophic scenario beyond 2°C warming above pre-industrial levels.

Why is greenwashing detection challenging?

The detection of greenwashing across a large set of organisations has so far been a challenge, given the volume of disclosures and the numerous communication channels that companies employ to make their

SDG related performance known to policymakers, investors, consumers and other stakeholders. Moreover, only in the past 10 years, several independently assessed environmental and social performance indicators of companies have started to emerge to judge the actual performance of companies, regardless of their claims. These are still however not perfect, have limited coverage of companies and geographies and sometimes still rely on company self-disclosure for their assessments.

Climate mitigation greenwashing detection

Judging which business and investment practices are most sustainable is not always straightforward, as it is a continuously moving bar which depends on the characteristics of specific environmental, social and governance issues (ESG) as well as the attention that society, investors and corporations place on each of these factors at any given point in time. That being said, for climate change, we do have a scientific basis to benchmark the progress of companies: reducing their carbon emissions by 7% year-on-year to 2050, as advised by the UN Emissions Gap Report, the International Panel on Climate Change and EU Technical Expert Group on Sustainable Finance, of which Prof. Hoepner is a member, appointed in personal capacity.

Climate mitigation related greenwashing is not only a challenge for consumers, but also for institutions like asset owners

¹ <https://www.nature.com/articles/s41467-019-09959-4>

² Lyon & Montgomery (2015) - <https://journals.sagepub.com/doi/10.1177/1086026615575332>

and policymakers given that companies disclose their green credentials through a wide variety of channels (including to several government departments, through numerous social media channels, traditional media outlets, their websites, as well as through statements of their executives in press statements or industry events among others). This resulting large volume of disclosures makes the investment process of asset owners and asset managers prone to rewarding greenwashing companies in the absence of a set of tools which can point towards instances of misleading claims.

Greenwashing becomes a further problem as web technologies such as bots or online ads are actively used to not only spread misinformation related to climate change mitigation as well as other topics, but to also ensure that the attention of investors, policymakers and the public is spent on misleading and often confusing claims about climate change mitigation efforts. This is highly distracting and the prime deterrent from reliably measuring and progressing towards timely climate change mitigation around the world.

Using AI for Climate Mitigation Greenwashing

We believe AI can be an effective tool towards detecting instances of climate change mitigation-related greenwashing. We are grateful to be supported by the Science Foundation Ireland ("SFI") to undertake this project under the "AI for Social Good" challenge. We are also fortunate to have the guidance and support of Pat Cox, the former President of the European Parliament.

As part of our SFI funded project, we propose to build a climate change mitigation greenwashing detection tool which analyses the claims of companies

worldwide and contrasts them with the actual performance and activities of companies.

The greenwashing tool is based at the core on a greenwashing identification framework which was co-developed by consulting with over 200 financial services professionals during the concept phase of the project. The resulting definition for incontestable proof of greenwashing companies is:

"For a given company to be categorised as greenwashing, several conditions would have to be met:

- the company in principle agrees that climate change mitigation is a desirable goal, and
- the company declares itself as absolute climate mitigation leaders through its disclosures or communications, but
- the company's climate mitigation performance lags the required climate performance advised by EU policy or UN guidance, to reduce their GHG emissions by 7% year-on-year to 2050."

By doing so, we aim to build a useful tool for asset owners, asset managers, policymakers and broader stakeholders concerned with the effective transition towards a low carbon economy.

There is no doubt that avoiding climate change requires accurate data to benchmark our progress, otherwise, it can be as if we embark on a weight loss program without knowing our weight in the first place.

We welcome any engagement from any industry organizations on our project. If you are interested in finding out more, please reach out to andreas.hoepner@ucd.ie and theodor.cojoianu@ucd.ie.



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