

# Why AI Can't Replace Humans In Environmental Compliance

By **Gerry Caron** (June 8, 2021)

All eyes are on the European Union's recently proposed rules for regulating artificial intelligence. On April 21, the EU took a bold step to establish its leadership position in setting strict new global norms to regulate AI. Governmental authorities in the U.S. are also considering the need to regulate the risks posed by AI.

Notwithstanding future regulatory constraints on AI, it is certainly a transformative force that is only growing in scale. Indeed, there is a spirited and growing debate within the environmental and safety community over whether the further advancement of AI and other technologies will eventually usurp the role of individuals in compliance assurance.

In other words, will the logical extension of AI in the environmental and safety area lead to the eventual extinction of human involvement in organizations' compliance assurance programs? This question is particularly important now, given the growing emphasis on environmental, social and governance factors and performance at the highest levels of organizations.

Compelling arguments suggest that the answer to this question is, resoundingly, no — humans are here to stay when it comes to sound environmental and safety compliance.

Like it or not, human involvement and interaction — with accompanying judgment, perspective and experience — will remain critical in any effective compliance assurance programs.

Indeed, humans are the heart and soul of any organization's fully functioning compliance program. Notwithstanding their imperfections and limitations, they will continue to be the linchpin of any healthy compliance culture.

## Advancements in AI in the Environmental Compliance Arena

AI refers to the intelligence demonstrated by machines, as compared to the natural intelligence displayed by humans, which involves consciousness and emotionality. In many respects, AI is about the management, processing and assimilation of data more quickly and efficiently than is possible for humans.

Examples of AI developments and improvements in the environmental and safety area include regulatory technology, also known as regtech, and predictive analytics. Regtech, which is intended to identify and determine the applicability of complex new regulations to an organization, got its start in the financial services industry, and is now expanding into additional areas, including environmental compliance. AI is also being used in the process safety area to improve equipment integrity, and to predict equipment failures before they happen.

Unquestionably, these developments are impressive and welcome tools to be used as part of a company's compliance assurance program. The benefits include greater efficiency, speed, reliability, potential cost savings and consistency in approach.



Gerry Caron

A classic example of where AI tools can be used in the environmental area is in data compilation and analysis in meeting Clean Air Act Title V operating permits, or satisfying complex air emission limits and other requirements under Clean Air Act consent decrees. AI systems have the ability to analyze massive datasets, discovering patterns, finding anomalies and presenting this information for various uses and applications.

Another example is in the area of governmental enforcement or private party litigation regarding environmental compliance or safety matters. AI can be invaluable in searching and organizing troves of relevant documents that are critical to a case, which otherwise would take endless hours for in-house counsel and outside lawyers.

Based upon advancements such as these in the environmental area, some believe that the opportunity to replace human individuals altogether is the logical culmination of further progress in this area. Some have stated that this is indeed one of the goals of further AI development — that humans will no longer be needed as part of an organization's environmental and compliance assurance program.

Behind this notion is presumably the belief that replacing humans will lead to impressive efficiencies and cost savings. But this is where the praise for AI and other technology improvements arguably begins to lose credibility.

Yes, recent technology improvements are noteworthy, and hopefully will continue to advance. But this is all a far cry from a demonstration that human experience, expertise and accountability will be replaced altogether in the environmental compliance field.

### **The Need for Continued Human Involvement in Compliance Assurance**

There are significant limitations when it comes to application of these tools in the compliance arena. Sometimes data can be misleading, or just plain wrong. The human eye may be the necessary gauge to assess whether there is some indication that data is not correct. Such scenarios are not unusual.

And many situations in the compliance field that touch on ethical questions — indeed, some of the toughest ones — involve gray areas, and the need to evaluate numerous factors and criteria, not just a limited dataset. Often, the available information and data points in complex compliance matters can be inconsistent, and even conflicting.

Another important limitation of AI applications is that the algorithms themselves behind the AI can reflect the inherent biases of the individuals who create them. The results, therefore, may also reflect those biases, and humans are needed to assess and ensure those results are sound and defensible. Not surprisingly, under the EU's recently proposed rules, companies must guarantee human oversight in how AI systems are created and used.

Compliance is not just about solving a numeric equation. A corporate culture that expects, if not demands, full compliance with law and ethical standards of behavior is much more than this.

Cultural aspects of compliance, including the "tone from the top" and modeling of right behavior, are critical components of any effective compliance program. Compliance assurance is not just about finding and implementing an engineering fix. The human factors are not only unavoidable, but more importantly, are critical to successful compliance programs.

If humans are replaced in compliance programs, what happens to accountability for avoidable mishaps? Would regulators simply accept that the compliance technology failed, and that there are no individuals to hold accountable?

Imagine if, in every environmental enforcement or litigation matter, that the primary, if not exclusive, witness for the organization is its chief technology officer. The CTO would always be the star witness on complex environmental matters, explaining how the AI or other technology tools work, and how they may have failed in the specific instance at hand. This seems highly improbable.

### **Compliance Assurance: Not Based on a Rigid Formula**

The U.S. Department of Justice Criminal Division's Criteria for Assessing Corporate Compliance Programs, last updated in June 2020, emphatically states that it does not use a "rigid formula" to assess the effectiveness of programs. Rather, the assessment makes an individualized determination based on all the unique facts and circumstances of the particular situation.

Unquestionably, regulatory compliance can be extremely complicated. No one would argue against that point. But that does not mean that regulatory compliance can be mastered exclusively by advanced technology tools. Achieving, maintaining and demonstrating compliance will never be a fully automatic process.

The need to monitor new regulatory requirements offers an example of this. It would be a major stretch to assume that regtech computer programs could analyze new requirements and determine their applicability to various regulated entities. This is particularly the case for entities that have complex emissions sources and other infrastructure covered by multiple regulatory programs.

### **Sharper Tools in the Toolkit — But Still a Need for the Craftsman**

Organizations should welcome new AI-based tools to further improve their environmental and safety compliance efforts. Strong compliance programs must constantly adapt and improve. They should never remain static.

But while sharper and newer tools should periodically be added to the toolkit, the master craftsman is needed to use the tools and create the work product. An effective compliance program will incorporate both new AI tools and the more traditional components of compliance.

AI can effectively complement existing reporting structures, corporate training programs, key corporate policies and procedures, and other elements of the organization's compliance program. But both need to exist side by side, guided by humans and their emotional intelligence.

### **Takeaway**

The impressive progress of AI in the environmental and safety compliance program space is certainly to be applauded, and the regulated community looks forward to even more advancement in this area.

Notwithstanding the applause, however, the existence of these enhanced tools is

complementary to other tools for enhanced compliance — not a replacement for the more traditional components of a successful program.

---

*Gerry Caron is chief counsel for safety, health and environment at Cabot Corp.*

*The opinions expressed are those of the author(s) and do not necessarily reflect the views of the organization, its clients or Portfolio Media Inc., or any of its or their respective affiliates. This article is for general information purposes and is not intended to be and should not be taken as legal advice.*