

# Climate Change, Global Warming, and the Social Responsibility of Engineers

Anthony Tiseo

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*“A person who thinks all the time has nothing to think about except thoughts. So, he loses touch with reality, and lives in a world of illusions. By thoughts, I mean specifically, chatter in the skull. Perpetual and compulsive repetition of words, of reckoning and calculating. I’m not saying that thinking is bad. Like everything else, it’s useful in moderation. A good servant but a bad monster. And all so-called civilized peoples have increasingly become crazy and self-destructive because, through excessive thinking, they have lost touch with reality. That’s to say, we confuse signs, words, numbers, symbols, and ideas with the real world... This is a disaster, for as a result of confusing the real world of nature with mere signs... we are destroying nature. We are so tied up in our minds, that we’ve lost our senses and don’t realize that the air stinks, water tastes of chlorine, the human landscape looks like a trash heap, and much of our food tastes like plastic. Time to wake up.” -Alan Watts*

Climate change and global warming are topics of great debate. Effects of these can be seen but are being used as a weapon in the society that we live in. Society is so greatly impacted by narratives that different groups want to spread for their own personal gain. These subjects are no different. As Alan Watts describes, “This is a disaster, for as a result of confusing the real world of nature with mere signs...” (Watts). While this can be a conversation done in a constructive and meaningful way, it currently is not. These topics are being pushed on students at all levels, in every class, and in so much of their social world. Pushing issues, no matter how important they are or are not, only lead to fear, resentment, and neglect. Forcing students to constantly write about this issue or have to analyze the problem at hand is not fixing the issue. Good students and good people all around the world just want to be useful and beneficial to the world that they live in. It is sometimes unjust to say that engineers are the saviors of the future. The future would not have to be saved if it was not for the reckless advancements made out of necessity of higher powers, such as government or corporate profits.

Engineers specifically, do not bear all responsibility for solving any climate related issues at hand. They are capable and knowledgeable on subjects that can apply and are capable of helping in many ways. The world needs everyday, hard working, dedicated people that care about other aspects of the world or their lives. Engineers, who are responsible for all of the technology that is contributing to climate change, bear the responsibility of what they have brought into this world. Alan Watts describes a “A good servant but a bad monster” (Watts). Technology can be compared to this statement. Technology, that engineers are responsible for,

is the servant that is becoming a monster. Engineers fixing issues created more issues. Making the automobile and continuing to grow upon it created a society that is more widely spread, making the cars more available, and therefore making cars more abundant. If someone believes that these vehicles caused the issue, then blame the engineers who created them.

Engineers are a very important yet confusing part of society. They seem to have little idea of what is actually going on in the world around them. In my experience, engineers are good at one thing and that is over analyzing situations. They try to make more out of something than it truly is. They solve problems that don't always need to be fixed and create issues because of it. As explained in the quote above, obsessively thinking about problems disconnects someone from reality. They begin to live in some world inside of their head where everything they think is right and builds sort of a character flaw. This may be a valuable aspect to have when being an engineer, but this does not mean that they are suited to take on bigger tasks. They become so focused with their reality that they are not able to think from an outsider's perspective. A true engineer is a problem solver that is given an issue and they solve it. Climate change and global warming are not problems an engineer is able to solve. They are capable of helping and being able to figure out little things that need to be solved but that is just too big of a task for them. If an engineer were to take on global warming, the world would be in a ball of flames before anything worthwhile got done. An engineer, in my experience, is being trained to be so analytical and picky about every little thing that they would take years and years to even collect basic data to support some thesis that they came up with. Sometimes, these decisions and situations account for more than an engineer can comprehend.

Engineers are often trained in a "fact-based world" that can sometimes seem detached from the realities of everyday life. This focus on numbers and data may not always account for the human element, whether in academic, professional, or personal settings. It is not uncommon to witness engineers graduating from college and joining military supply firms, where they design weapons meant for destruction. In such cases, they may be unable to see beyond their own expertise and consider the broader implications of their work. This narrow perspective can lead some engineers to be dismissive of alternative viewpoints, believing that the world would be better off if everyone thought like them. Such attitudes may be rooted in their dedication to mathematics, science, or other specialized fields they believe hold the key to progress. Being able to create technology that is damaging to others or even themselves is sometimes seen as 'for the greater good'.

Engineers, known for their problem-solving abilities and application of scientific principles, hold the expertise to design and develop solutions for a wide range of challenges,

including the creation of sustainable technologies and infrastructures. However, it is crucial to acknowledge that their primary responsibilities lie with their clients, employers, and adherence to professional ethical standards. While engineers should strive to incorporate sustainable development principles in their work, the tackling of climate change and global warming cannot be placed on their shoulders. Social responsibility is a collective endeavor, encompassing the efforts of individuals, communities, governments, and businesses, all working together to create a more sustainable future.

The modern car market serves as an example of how engineering innovations can sometimes contribute to environmental issues rather than resolving them. The constant push for newer, more advanced vehicles has led to an overabundance of features, many of which are unnecessary and serve to complicate the overall design. The inclusion of these features often leads to increased electronic and mechanical failures, thereby reducing the reliability and longevity of vehicles. Consumers find themselves replacing cars more frequently, furthering the issue of discarded vehicles filling up lots and fields, unsold, or abandoned, further contributing to environmental degradation.

The short-sighted pursuit of technological advancements in the automotive industry has inadvertently led to a growing amount of waste, as new vehicles are bought more frequently and replaced with new models with even more complex and unnecessary features. This pattern reveals that engineers, though capable of designing sustainable technologies, may sometimes be swayed by market trends and consumer demands, ultimately contributing to the very problems they could help solve. The solution requires not just the ingenuity and expertise of engineers, but also a collective shift away from making for the now, and instead making for the future. By prioritizing environmentally friendly practices, both engineers and consumers can play a critical role in creating a more sustainable world and reducing the negative impact of modern engineering practices on the global environment. People are not in need of the majority of what is available today. The engineers of the world are to blame for furthering the world in a direction and path of no return.

Obviously, all of this can be disputed in great debate. Engineers, in our modern world, have usage and a role to play. At this point, it can be argued that we need them to solve issues that occur and create systems or technological advancements. Engineers have valuable technical knowledge and skills that can be utilized to develop sustainable technologies and infrastructures. For example, being able to create new ways to create energy is just one way that engineers can help. Same applies to transportation challenges, creating less pollutive materials to build with, and even more efficient ways to produce goods.

In conclusion, engineers possess valuable technical knowledge and skills that can be utilized to develop sustainable technologies and infrastructures in the fight against climate change and global warming. However, it is essential to recognize that these complex issues cannot be solved by the engineering profession alone. Tackling climate change and global warming requires a collective effort, involving individuals, communities, governments, and businesses, each playing their part in creating a more sustainable and resilient future. Engineers must be mindful of their role and work collaboratively with others, balancing innovation with environmental responsibility. By focusing on local communities and promoting sustainable practices, engineers can use their expertise to drive positive change in the world. Furthermore, the engineering community should actively engage in a culture of sustainability within their profession. Ultimately, addressing climate change and global warming is a shared responsibility that calls for the combined efforts of all members of society. By working together, we can create a more sustainable world and reduce the negative impact of modern engineering practices on the global environment. Engineers have a crucial part to play, using their skills and expertise to develop innovative solutions that benefit both people and the planet. This is to say that we need to stop thinking about short term advancements and maybe take some steps back and not continue to fall into the rabbit hole that is technology.

## References

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