CLIMATE TALK

**Driving on the Sun**

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This was going to be an article about trains. During a long drive down to Milwaukee over the holidays, weaving about seasonal traffic on winter roads, I couldn’t help but think how that time could be better utilized doing something *besides driving*. Thinking of how efficient the world of trains had been and how the world of automated vehicles will be, I couldn’t shake the idea that we have a transportation problem. Although we’ve solved the accessibility issue, our technology sucks!

The average household in America holds the same number of automobiles as children: 2.5, although I’ve yet to actually see half a car. Or half a child for that matter. Nowadays, anybody can jump into their vehicle and get to wherever they’re going, with the minor downside of spewing a mix of chemicals into the atmosphere. Herein lies the issue: Cars burn petroleum, which, upon combustion, emits such lovely gases (carbon dioxide, ozone, particulate matter, and carbon monoxide, to name a few). In a country where the average adult commutes 16 miles to work each day, two questions come to mind: 1) How did we get here? and 2) Why did we settle on the internal combustion engine?”

Around the end of the 18th century this little thing called the Industrial Revolution was underway, when people started coming up with all sorts of crazy doo-dads, including the steam engine. In Europe everybody went bonkers laying down rail for these things called *trains* that started ripping across the country at the breakneck speeds of four miles per hour! Fast forward to the turn of the 20th century and things were heating up on the American front. Some guy named Edison had the bright idea to turn the lights on, the telephone was revolutionizing public life, Henry Ford started tinkering with what he called the internal combustion engine, and then all of a sudden two brothers down south started FLYING. Fast forward 100 years and we’re in the modern era. Light pollution is disrupting bird migration patterns, cars are everywhere, and in everyone’s pocket is a device with more sophisticated technology than we used to put Neil Armstrong on the moon. Oh yeah, I forgot to mention: We can fly into outer space now.

You’ll note that, in the list above, cars are the only invention not associated with a modern adaptation. Aside from some tweaks in materials and efficiency, not much about the internal combustion engine has changed in the last 130 years. So in a way, this is an article about trains after all, because while we’ve had the ingenuity to turn airplanes into rocket ships and rotary phones into AI equipped pocket computers, our primary mode of transportation is effectively the same mechanism powering Thomas the Tank Engine. Given the evidence that we have the technology to build a better, faster, less earth-killy engine, the question remains: Why isn’t it the future already?

Big oil, government subsidies, and market demand are the cop-out responses we generally hear when it comes to this issue. But in a world where access to oil means warfare or dangerous deepwater drilling, where tax dollars are annually wasted on supporting a mature industry, and where nobody enjoys paying for gas, why hasn't *someone* come up with a better idea?

During the advent of the automobile, Nicola Tesla, among others, were playing with the idea of electrically powered vehicles. Then, as now, battery life (miles per charge) and access to charging stations were the primary challenges. When Ford’s assembly line made the Model T an affordable, mass-produced commodity, the world bought in, essentially killing other options. The thing to note here is that, while battery life still needed work, the infrastructure problem (where to charge the battery) was the same as the problem of building gas stations. You might make the argument that while we could have started mass producing electric cars in the 20th century and figured out the charging issue, the state of the climate would be the same because we still would have burned coal to create electricity. To that point, I will simply state that XCEL Energy is currently selling shares for a solar farm. Were the world electric, we would have gone solar decades ago.

It’s easy to “what if…” our way into oblivion, so instead let’s focus on ideas that can get us back on track to a better tomorrow. I’ll offer two solutions: business innovation and limited legislation. While you’re scratching your head, I will tell you why this works.

Suppose we’re drafting a law that defines a standard of efficiency. One option would be requiring the use of a specific technology that meets that standard, like a catalytic converter. Another option is to impose a penalty for not meeting the standard, for example, the carbon fee advocated by the Citizens’ Climate Lobby.

The first option locks the entire industry into one form of technology. What’s most likely to happen is that once the investment is made, nobody will want to pay to make it better. If the mousetrap we have works, why fix it? The second option encourages the industry to innovate and come up with various ways to meet the standard to avoid a penalty. This takes longer, but as the market competes to develop a cheaper, more efficient method everyone benefits from the shared effort.

Now I know the idea of another tax rumples the feathers of business owners nationwide, but if we tweak the law a little bit by adding a dividend policy, also part of CCL’s proposal, revenues collected from the penalty can be redirected back into rebates or other incentives that raise everybody’s bottom line. So, if the idea of a stronger economy, cleaner air, and quieter streets sounds like a good idea, please, consider calling your legislators and telling them you support the carbon fee. The future looks brighter, better, and faster than ever. We just have to build it together.

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