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The Smart Home Scam

Smart homes are everywhere. You walk into a Best Buy, and you immediately get blasted with all the new smart home technology. Everyone is talking about them as being the latest innovation that will make our already spoiled lives easier. And even better is that they are supposed to be an eco-friendly and positive addition to our environment. Well, not really, any of this is true. In reality, smart homes can be a negative addition to the environment that worsens already declining conditions. While it's cool to be able to yell at Alexa to turn the heater off, is it really necessary?

Before we dive headfirst, what is a smart home? A smart home is basically any house that has a bunch of devices connected to a master controller. For example, you may have your oven connected to Alexa or your washer paired to Alexa, which then can be controlled through Alexa. Now don't get me wrong smart homes are pretty incredible. Just seeing some of the capabilities of smart homes is humbling. For example, in Bill Gates's home, one of the most advanced smart homes on the planet, you can assign a pin number to yourself, which follows you throughout the house. And with that pin number, you can set preferences such as room temperature, lighting, blinds open or closed, and even style of music. And when you walk through the house, these settings will follow you into each room. By all means, that really impressive. But not everyone has the money for a house like that. What about smart homes at the consumer level? For the most

part, smart home technology has reached it's beginning the stage. At the consumer level, if you're looking to get some fancy gadgets, you're looking to spend a couple thousand dollars. And what about the features? You'll be able to manage your heat, appliances, lighting, and door locks all from your phone. That allows you to turn off devices, turn the ac down, turn the lights down and lock up the house all while at work. That should save tons of energy and protect the environment!

Unfortunately, that's not how it works. While a full-fledged smart home with all these capabilities can reduce electrical usage by 22%, a few significant variables are missing from this equation. Since smart homes are a new market, they need to be targeted and sold as if you need it. A lot of people may end up buying them either because it's neat or because they want to save electricity. Except for the saving electricity part, that's not really true. Technically when you buy a smart appliance, you'll see a fancy sticker on it that says energy star. That sticker certifies its energy-saving capability. Except that's just a marketing technique as well. In the lab, it does save energy by all means enough to earn itself that magnificent sticker. Still, as previously stated, significant variables are missing from this equation.

The primary variable missing is the energy required to produce as well as maintenance. For an appliance to be smart, it has to have some form of computational technology behind it. That typically requires some type of circuit board with millions of transistors to run software that optimizes it's system and keeps it energy efficient. The catch is your being sold an appliance that requires much more energy to be produced and created, then you will ever save from it. You need to realize the software on the refrigerators involves manpower. Coding teams need to sit down and write out the software, which can take many months before it's operational. At that

time, employees are traveling to and from work using a ton of energy. And like mentioned before, smart appliances require some form of a circuit board to run them. And those computer boards are incredibly costly to produce. They're made of plastics and other toxic metals paired with rare earth resources to make them fully functional. Just the process of making the boards releases a ton of ozone depleters such as Methyl Bromide that destroys the ozone layers. Already before you even buy your new energy appliance, the environment has taken a massive hit.

Yet that's not even the worst part of these appliances. Since technology is expanding so rapidly, it's without a doubt that software needs to be updated and maintained to prevent your precious fridge from getting hacked and drowning you in ice. When your adding features to a limited range of computational capability over time, it's going to get all used up. That means you'll eventually be running to the store seven years from your initial investment, still with a deficit in the environment to get a new fridge that cools food better! Does that even make sense? And the worst part is this isn't accounting for the new era of marketing that's occurring. Currently, corporations have been peacocking a little too much, and the desire for longer-lasting products has lost its position. Following standard procedure, companies have begun engineering products to actually last for less time so that they may profit more in the long term. And with computers being well known to crash and burn, this puts us in a cycle of buying new products before the other one has had any benefit.

Now don't get me wrong smart appliances have made some useful improvements along the way. A lot of washers and dishwashers have switched to low agitators, which can save a ton of water each year. Smart homes have the capability of being an excellent addition to solving our out of control carbon emissions. The problem lies in the manner in which it's being done. Smart

homes are being associated with having every single appliance connected to the internet or possess some method of doing so. But that's not at all required. And in order to create an incredibly efficient smart home, you don't need the fancy tech with more bells and whistles. Creating a smart home with an impact is going to lead to sacrifices no matter what. The current direction of appliances is not the route for reducing environmental impact. You'd be much better off buying the most simplistic old school washer as it will last, and it only has one job. Clean clothes. There are no other moving parts to potentially fail, and as well they are tried and trusted. There are laundromats across the United States with machines 30 years old running better than ever. And having an appliance last that long allows it to pay itself off. Preserving energy does not require the newest energy-saving appliances. For the most part, that's a marketing scam that's following the current trend of reducing environmental impact. It won't make a difference, and arguably it's going to cause more consequences in the long term from the manpower and maintenance that's required to keep machines running.

As well, there are so many different factors that come into play when it comes to electrical usage. Such as shower length, TV's running, current things plugged in, and so forth. This is when smart homes can come in and do a really good job. For example, investing in a simple, smart plug can allow you to enable and disable a socket at any time during the day or even put it on a timer. The significance of this capability is it fixes an issue known as phantom power. Essentially phantom power is just devices using energy when they are off. For example, even though your TV is off, it's still using a small amount of power to remain in standby mode. Now stand by mode is helpful, but it's not needed 24 hours a day. Most people only ever use their TV's from 5-10pm. And that's where smart plugs come in. They fix this problem by

disabling certain outlets during certain times of the day. Phantom power is estimated to account for almost 22% of your electric bill, making smart plugs a worthy investment.

After crushing smart homes for such a long time, let's get into the actual technicality and practicality of smart homes. Let's say based on the average American electric bill of \$111.67 and the average home size of 2600 Sq ft, the owner decides to convert to a smart home. The upfront cost of smart home conversion is about \$11,000. Alright, so the estimated savings based on national averages is going to be a general 22% reduction in electricity across the board for the homeowner. And with smart washers, the water reduction per load is going to be about 50% lower. Doing some quick calculations, the new electric bill would be \$87.10, which is a sweet reduction. Now accounting for the water reduction, the average American home uses around 16,000 gallons per month, which costs about \$70. Washers are used 8 times a week on average with smart washers using 15 gallons and regular uses 30 gallons doing some quick math washers can reduce the monthly water usage by about 480 gallons. That's only about \$2 a month, but it's still something. Alright, doing some more quick math for our upfront cost of \$11,000, it would take 34.5 years before you made your money back from the initial investment. Now, pretty quickly, you can see a substantial problem with this. 34.5 years is assuming nothing goes wrong with any of the appliances and that there are no technical problems with the smart home. The problem is average smart home appliances last around 8-10 years. So you'll already have had gone through three washers, three dryers, three refrigerators, and maybe even some ovens before you hit 34 years. Your wallet will be seriously hurting after that. So the conclusion? You will not make your money back converting to a smart home, and you will not fix the environmental issue but arguably make it substantially worse. Smart homes don't fix the environment.

Arguably the problem is so much more than just appliances. It's how we gather electricity. It may seem that managing electricity is our only method of controlling and making a difference, but it's not. There are so many different manners in attacking this global problem. All the way from eating meat, to buying a hybrid, to investing in solar panels, to biking or even getting LED lights. Smart homes may be the new fashionable trend due to their capability of amplifying human laziness, but it's not the way to go. Instead of making smart homes work, it's much better to take different aspects of technology and pair it together. For example, using an old school washer on a smart plug will save more energy and money, then any smart washer ever will. By old school, I'm referring to the classic tall agitator in a square body with only one job, which is to wash. As well using an older dishwasher under a smart plug can save substantially more energy than a smart dishwasher. Making change does not require the newest technology nor a lot of money. Just like buying a fancy pen or notebook, it won't make you a better writer. It requires an actual desire to make a change. Nor does it require a lot of money. Do what you can with what you have. You'll make so much more progress by taking action with what you have than if you fell into the scam of smart homes.

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