

Living Green Quarterly

December 2024



Sentinel believes that sustainability – or living “green” – is at the heart of protecting our future. Working together we can find the fun in being Green.

"AI may impact the environment in both positive and negative ways."

Green VS. Green

Which fun fact will you show off at the next dinner party?

Chlorophyll gives plants their green color because it does not absorb the green wavelengths of white light. The green wavelength is then reflected from the plant.

SOURCE: <https://education.nationalgeographic.org/resource/chlorophyll/>

E-books are only considered sustainable to the avid reader who is likely to read over 23 to 36 new books per year. It is better to buy used books, or check out books from your local library otherwise.

SOURCE: <https://www.npr.org/2024/05/25/1252930557/book-e-reader-kindle-climate>

Brave New World of AI

By Skye Randazzo



According to Ipsos, when it comes to AI more than half of the globe believes it to be a tool that will “give them more time to get things done and improve their entertainment options.” But it is much more than just Chat GPT or Gemini helping with our school essays or research. AI is a catch-all term for a group of technologies that can, at least superficially, process information — mimicking human thinking. This can affect almost every aspect of our lives, from e-commerce and education to navigation, healthcare, agriculture, recycling and more. As something that can and will affect so many aspects of our lives, it’s always a good idea to take a look at how AI may impact the environment in both positive and negative ways.

There are a lot of positives attached to AI when it comes to sustainability, but the largest contribution is the ability to detect patterns in data. When fed data or images of icebergs, regardless of full visibility due to cloud coverage or lighting, AI can discern between icebergs, sea ice and clouds and is able to map the icebergs 10,000 times faster than humans are able to. AI showing us where icebergs are melting the fastest is just one example of what can be done. It is also able to help manage supply chains, analyze sustainability data for companies, detect patterns and anomalies as well as combine the information with historic knowledge to accurately predict future outcomes. This makes AI a very valuable tool that can help governments, businesses and individuals make more planet-friendly choices.

Raising concern to some, however, is that there are 190 countries racing to develop AI strategies but very few of them are considering the effects that using AI will have on the environment. It takes a significant amount of electricity, mainly produced by fossil fuels, to process and analyze data effectively. For example, using ChatGPT takes ten times the electricity of a simple google search. With over 100 million users of ChatGPT every week, the demand of extra energy significantly adds up for this one platform. Beyond that, data centers that house these neural networks also need rare elements that are mined to create them, which can produce electronic waste of hazardous substances like mercury and lead. These data centers also use a lot of water during construction as well as in operation to cool the electrical components. The combination of exacerbated energy usage, extracting minerals that impacts landscapes and communities and excessive water usage that may compound drought events, are worth a lot more consideration than is currently being given.

Prevalent as it is, AI is here to stay. It is indeed a brave new world in technology with AI at the helm. There are options to alleviate some of the worries the environment conscious may have. In fact, Finland has created an optimized data center that is run on 97% carbon-free energy to great success. Hopefully this is just the beginning of significant ideas in our collective AI goals keeping sustainability in mind.

Employee Spotlight

By Karen O'Brien



Abby Braun

Manager at Foothills at Old Town
Temecula, CA

What steps have you taken to ensure that sustainability concerns, such as environmental impact, are considered in new projects?

In new projects I define sustainability goals, evaluate the potential environmental impacts, integrate sustainability into project planning, implement sustainable practices and promote sustainability awareness to vendors.

How are you engaging your staff in your sustainability efforts?

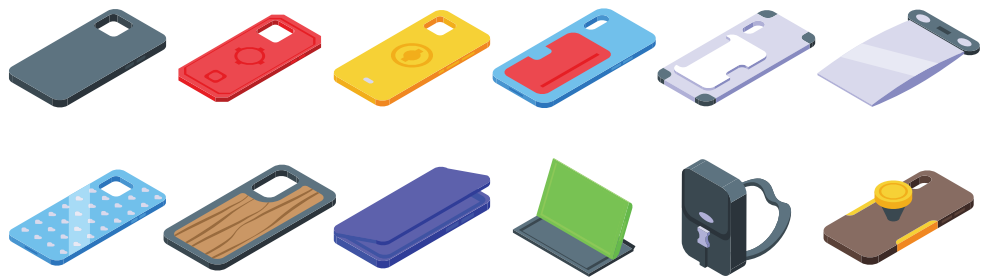
I set achievable goals and provide education training for my staff. I involve employees in the decision-making process and find ways to recognize their contributions.

How do you encourage residents to live an environmentally conscious lifestyle?

I am encouraging residents through education and awareness, community engagements, offering incentives, providing support, and leading by example.

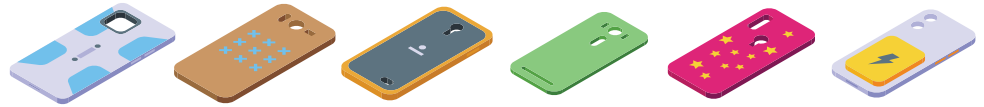
What made you decide to get more involved with your community's sustainability efforts?

I believe we need to maintain our resources without depleting them or causing harm to the environment. If we do not get involved now, we are compromising the ability of future generations to meet their own needs. My children are hands-on involved in some of our home and community projects. This year we are going to start planting fruit trees. Teaching them the importance of growing food is very rewarding.



EnCased in Sustainability

By Kayla Noll



It seems to happen that every time you get a new phone, it's already time for an upgrade. Technology advances so quickly and like clockwork, everyone is racing to upgrade to the latest release of the iPhone or Android. Often, these cellphone upgrades also require upgrades of accessories, including chargers, headphones and cellphone cases. Cellphone cases in the age of the smartphone have particularly become a major phenomenon. Whether out of necessity to keep these fragile handheld super computers from shattering, or as means of self-expression and creativity, there is a cell phone case for just about any impulse. Need a specialized case for when you work out? Want a case for each holiday? Have a favorite movie, music artist or sports team that you want to represent? A quick on-line search can provide a plethora of choices. However, with the myriad of choices, comes an unintended side effect – pollution.

On average, consumers get rid of more than 1.5 billion cellphone cases each year. Since most casing materials are non-biodegradable, it takes a long time for them to breakdown. Only a few pounds will degrade each year while more continue to pile up, adding an estimated 300 tons of waste to landfills within the next decade. Here are some steps you can take to minimize your waste production, while keeping your sense of style:

Limit Your Collection: Yes, it can be fun to have a phone case for every occasion, holiday and season, but it isn't necessary. Try to limit your collection to 2-3 you can rotate throughout the year.

Reuse Old Cases: It is rare if ever a newly released phone is the same size as the previous model, however, you can see if a friend or family member with the previous generation could use them. You could even donate or sell them to organizations such as the Salvation Army or thrift stores.

Search Sustainable Options: Look into buying a case that is made of biodegradable materials such as plant-based plastic, bamboo or cork. This way, when it is time to dispose of the case it will break down faster and will stave off harmful chemicals and gases from being released – while not adding to our overflowing landfills. This does require an extra step, however, which is to ensure you either compost biodegradable cases or send them to a recycling program, as they will not break down properly in a landfill.

Dispose Your Old Cases Correctly: Simply putting your old cases in the recycling bin is not enough

since most municipal recycling programs will not accept cellphone cases because they are made of mixed materials. Luckily, there are some companies who offer cellphone case recycling programs. Companies who specialize in cases and cell phone accoutrement, such as Pela, Terra Cycle, Incipio and CASETiFY, have programs where you can send them any old cases, including those from other brands, and they will properly break them down and reuse the materials for future products.

GUESS WHO? WHO ARE THESE SCIENTISTS?



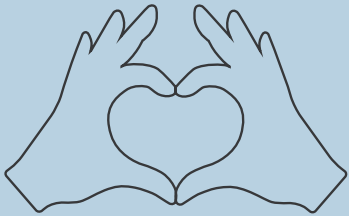
I invented the first practical incandescent lightbulb that could burn for hours.



I pioneered the transmission and use of alternating current (AC) electricity.



I won a nobel prize for "photoelectric effect," where light consists of discrete particles called photons, which can eject electrons from a metal surface when they hit it.



APPRECIATION STATION

Maintaining High Standards

By David Rodriguez

After a year of exemplary work, as well as being hit with a particularly difficult hurricane season, we were delighted to show our appreciation for the Tampa Bay area maintenance staff in Florida.



Along with their day-to-day tasks of keeping our apartment buildings well-kept and functional, their work helped us to reopen our doors as quickly as possible after hurricanes Helene and Milton swept through the area.

To show our appreciation, one of our district managers, Brittney Leech, was able to coordinate an appreciation breakfast for 20 hard-working individuals in maintenance, spanning seven apartment communities in the Tampa area. As a small token of our esteem, and through our partnership with HD Supply, everyone was provided with new safety glasses, tape measurers and flashlight pens during breakfast.

We would like to add a big thank you to these teams and the maintenance men and women who ensure all our properties run smoothly every day; and who work extra hard during and after devastation from extreme weather. We appreciate all that you do!

Get Charged Up About E-Waste

By Karen O'Brien



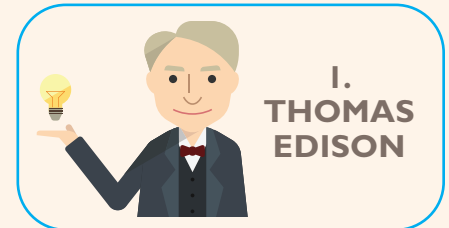
As we mention in our phone case article, the turnover rate on some of our phones, and other electronics, is far outpacing the need for new said items. In general, we want the latest and greatest gadget, but this revolving door of new electronics has been contributing to the mountains of e-waste in our landfills as well as toxic pollutants into our soil and air. Because these products often contain dangerous substances known as neurotoxicants, which includes mercury and lead, it is important to take the final step in the life cycle of your electronic device. Which is to recycle them responsibly and effectively.

Knowing this, it was surprising to find out that only 25 states plus the District of Columbia have passed some type of e-waste legislation. But e-cycling does more than curtail the contributions to landfills and pollution. It conserves natural resources. Electronics often contain valuable materials – including copper, gold and aluminum – that can be recycled and used in new products. Recycling these materials prevents the need to extract new materials from the earth helping to reduce the displacement of communities, contamination of drinking water, damage to pristine environments as well as toxic waste exposure.

So, what can we do? Whether your state has e-waste regulations or not, it has only gotten easier over the year to recycle any of your plugged or battery-operated items. Most electronic retailers offer “Uninstall and Haul Away” options for large items such as refrigerators, microwaves and washing machines when you order a replacement product. Companies such as Microsoft, Apple and Lenovo offer trade-in programs where they will send you a pre-paid mailing label or a list of drop-off locations to trade in your old phones and computers for cash or credit. Printer manufacturers like HP and Epson offer a pre-paid label to send back used printers so they can repurpose them or recycle for parts. Electronics retailers such as Office Depot, Staples, Best Buy and Target (as well as many others nationwide) will accept used ink cartridges and old electronics. Many companies also provide instructions on how to recycle on the packaging the parcel was shipped in.

Rechargeable batteries contain toxic metals and are a dangerous source of e-waste. When thrown in the trash, rechargeable batteries often end up in landfills and when the case erodes, chemicals contaminate the soil and eventually end up in the water supply. To recycle rechargeable batteries, many stores such as Home Depot, Duane Reade and Staples have Call2Recycle collection bins set up in their stores. Single use alkaline batteries (AAA, AA, A, D, etc.) no longer contain mercury or other toxic metals and they can be discarded. This is, of course, unless you live in California, which to prevent sparks and fires they should be taped on the ends before they are put in the bin.

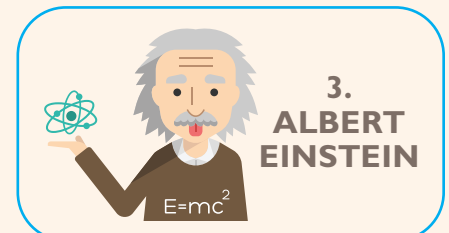
GUESS WHO? (ANSWER HERE)



1. THOMAS EDISON



2. NIKOLA TESLA



3. ALBERT EINSTEIN

Red Wine-Braised Beef Stew

Ingredients

- 4 lbs of beef chuck roast – cut into large 3–4-inch pieces
- 2 tbs avocado oil (or neutral oil)
- 1 yellow onion – diced
- 2 large leeks (tender white and green parts only) – cut lengthwise, clean and slice crosswise.
- 4 garlic cloves – sliced
- 2 cups of carrots – diced
- 2 cups of full-bodied red wine
- 8 cups of beef stock (homemade is preferable)
- 3 sprigs of fresh thyme
- 3 dried bay leaves
- chives – minced for garnish
- Salt and Pepper to taste



Local and Seasonal Eating

By Skye Randazzo

Today, supermarkets provide a diverse array of food at any time of the year. Unfortunately, sourcing food from all over the world that is neither local nor seasonal can have a negative environmental impact; transportation alone is a large contributor of pollution to our air and waterways and adds to our dependency on fossil fuels.

The food provided has diminished nutritional value because it is picked prematurely and produced with chemicals to survive the long journey from overseas. To help lower our carbon footprint, support your nearest farmers markets that offer fresh, local and seasonal produce. Our Red Wine-Braised Beef Stew recipe showcases a way to create a dish with many ingredients found at your local green market; beef chuck, onions, leeks and carrots are just a portion of winter's amazingly delicious flavor profile.

Directions

- 1) Preheat the oven to 350° F. Pat the beef very dry using a paper towel and generously season with salt and pepper on all sides.
- 2) In a large Dutch oven, heat oil on medium-high heat. Brown meat until a deep golden brown and do this on all sides. 3-4 minutes per side. Transfer to a plate and reduce heat to medium-low.
- 3) Add onions, leeks and garlic and a light sprinkling of salt and pepper. Sauté until onions and leeks are tender, around 4 minutes.
- 4) Add wine and stock and bring to a simmer and return the meat to the pan. Add carrots, thyme and bay leaves. Be sure not to have the meat fully immersed in the liquid. Cover and transfer to the oven for 2½ hours. Remove lid and cook for another 30-45 minutes, until the beef is fork tender.
- 5) Remove from the oven and skim off the layer of fat on the top and discard appropriately. Cover and allow the beef to rest for at least 45 minutes. Gently re-warm on the stove before serving.
- 6) This dish is excellent served over mashed potatoes. While in the oven, make your favorite version of mashed potatoes, and serve beef stew over the potatoes, adding chives for garnish.

Source: Skye Randazzo