

Cartoon Artist Statement

Hello, my name is Rosalie Scherbarth. I created the editorial cartoon for the MNHS hoofbeat for the December edition. My work was made from scratch, painted with acrylic on a board. I came up with the concept when I was told that I would need to make something relating to the usage of earth's natural resources. It took roughly 6 hours, and many coats of paint. I wanted to show in a satirical yet serious way how AI data centers are "sucking up" the planet. It was placed on the InDesign file by taking a photo of the board and placing it on the page.

THE COST OF A PROMPT

With the rise of AI, the amount of power used to support it has started to take a toll on the environment

THE HOOFBEAT

Staff Editorial

It feels innocent enough to go to ChatGPT or Gemini and ask for help with a difficult math equation or a confusing English passage. One search on its own is relatively harmless. But when our society continues to crave more and more from AI, it starts to leave a footprint on the physical world, one which we aren't fully aware of.

We've all seen the AI chatbot websites: the monochromatic screen with little more than a prompt box and a simple message encouraging you to ask it anything that may be on your mind. But when we look at this simple webpage, what we don't see are the massive data centers, housing tens of thousands of servers that allow this page to function.

These data centers are the physical components that allow the internet to exist, and when demand for AI started to grow, companies started to build more and more of these centers at a rapid pace, and each one built will require clearing land and disrupting local ecosystems to make space.

But what makes these data centers significant is the amount of power they consume. In August, Google revealed that the average Gemini text prompt consumed 0.24 watt-hours of energy, which they compared to the amount of power needed to run a TV for about nine seconds. This is small on its own, but it adds up when accounting for the fact that hundreds of millions of these prompts are processed every day.

Which means there isn't just a demand to build data centers: there are plans to build more nuclear power plants, primarily to power these facilities. This brings

concerns about nuclear energy into the equation, all while clearing even more ecosystems for construction.

And when this enormous amount of energy is spent, it causes these servers to heat up, and if they get too hot, then they are at risk of getting damaged. So how can they be kept at a safe temperature when they need to run constantly? The answer comes from something rather simple: water.

The majority of data centers pump cool water into tubes that run past the servers, lowering their temperature before it is released back into the body of water it came from, clean and unpolluted. Or at least, that appears to be the case on the surface.

Releasing this water back into the environment causes a different type of pollution, which doesn't involve directly contaminating the water as we often hear about: thermal pollution.

When water is used to cool these centers, it is released back at a higher temperature than it was before, slowly raising the temperature of the water body. And when the water gets warmer, it can't hold as much dissolved oxygen as it could before, putting more strain on the organisms that live in it.

Returning the water in this way cannot be easily avoided either. Since the water is exposed to so much heat in these cooling tubes, some of it will evaporate, which means that a closed water loop will lose water over time. This method can also cause corrosion in the equipment, making it much more costly and inefficient than using freshwater.

Now, none of these are new problems. Thermal pollution has been the cost of cooling factories long before AI, and the internet has always taken a lot of power for

its data centers.

It's also valuable to remember that we have not yet crossed the point of no return, which means that it isn't too late for us to start taking even just small steps against this. However, with how suddenly AI has boomed, the scale of these issues has been growing even faster, so it's best that we start taking action soon.

So, where should we start as a society? While it may sound like an easy solution, stopping the use and development of AI is a rather poor way of mitigating the issue. After all, it's still a tool that can be used to make a lot of positive changes in the world, and we can't just tear down the existing data centers we have for it.

It's also worth noting that the root of this issue comes from the companies that chose to expand their data centers for profit over practicing sustainability. If we want to see change, then it'll have to involve reforms within the companies that are working to expand AI.

For that to happen, we should spread awareness. The environment is something that just about everyone cares about, so if word of AI's impact can be spread, then there will be people to speak out against it.

And if there's enough public outcry for change, then the issue has a chance at being noticed by lawmakers. If legislation can be passed to require companies to build within certain sustainability guidelines, then there should be less damage from their rushed expansion.

It's important to keep in mind that AI hasn't fully destroyed our environments: in fact, it's still quite far from that. But we need to remember that there's more to AI than what's on our screens, because that's where its real costs lie.

Student Speak

How do you feel about juniors being able to leave for study hall on Fridays?

AJ Chinyoka

Junior



// I really enjoy it because I get to go out with my friends and have some food. I like going to Canes and Taco Bell.



Claire Davis

Junior



// It gives me time to visit with my friends. I go to Chipotle with my friend every week, and it's a lot of fun.



Carson Hickenbottom

Junior



// I think it's pretty cool to get that opportunity as juniors. It's rewarding for the kids that are doing what they're supposed to be doing.



Ruby Beeler-Streff

Junior



// I think it's really fun and a great way to enjoy our Fridays. ask for more



EDITORIAL CARTOON



Rosie Scherbarth