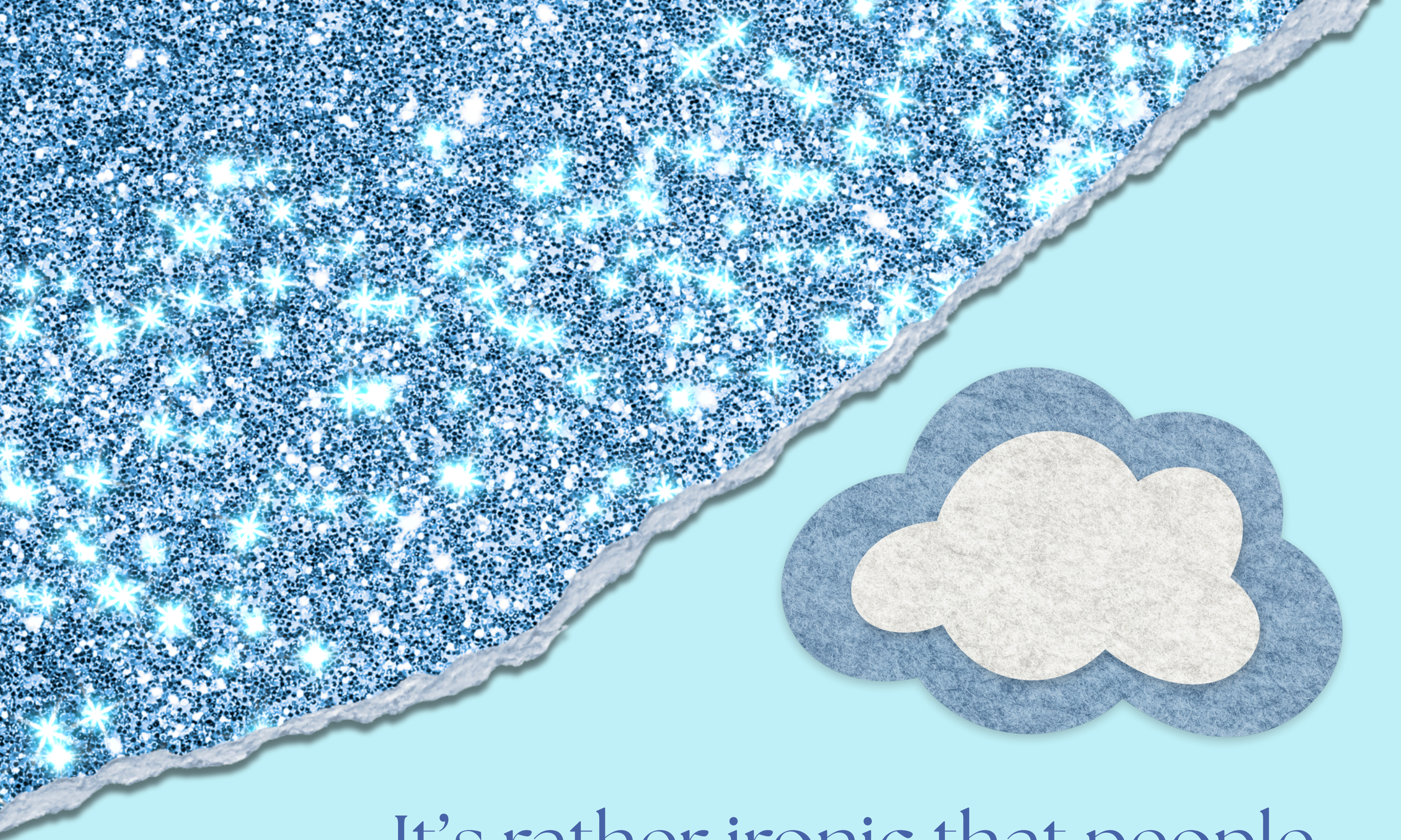


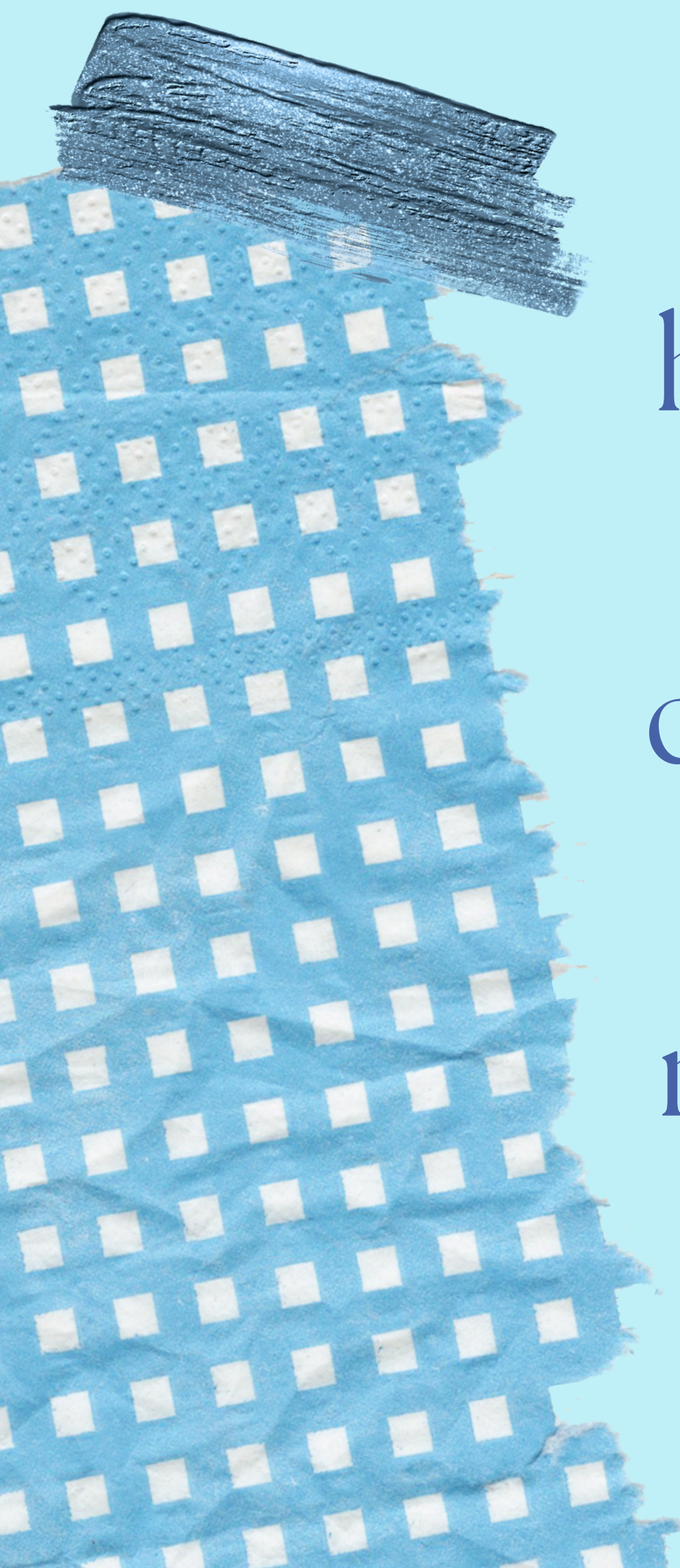


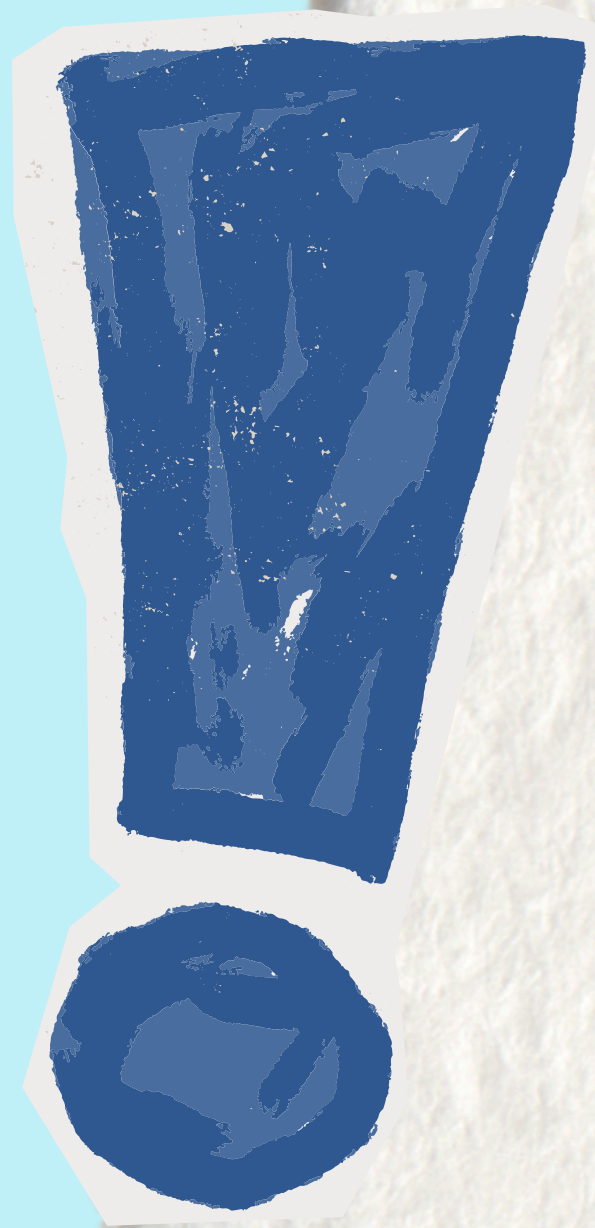
The Enemy Is Closer Than You Think: Does Social Media Use More Water Than AI?

By: Ava Velez



It's rather ironic that people make posts about the dangers of using AI. They heavily discourage it, stating that it's catastrophic and detrimental to the livelihood of our future, yet the social media sites they are posting on prove just as harmful.



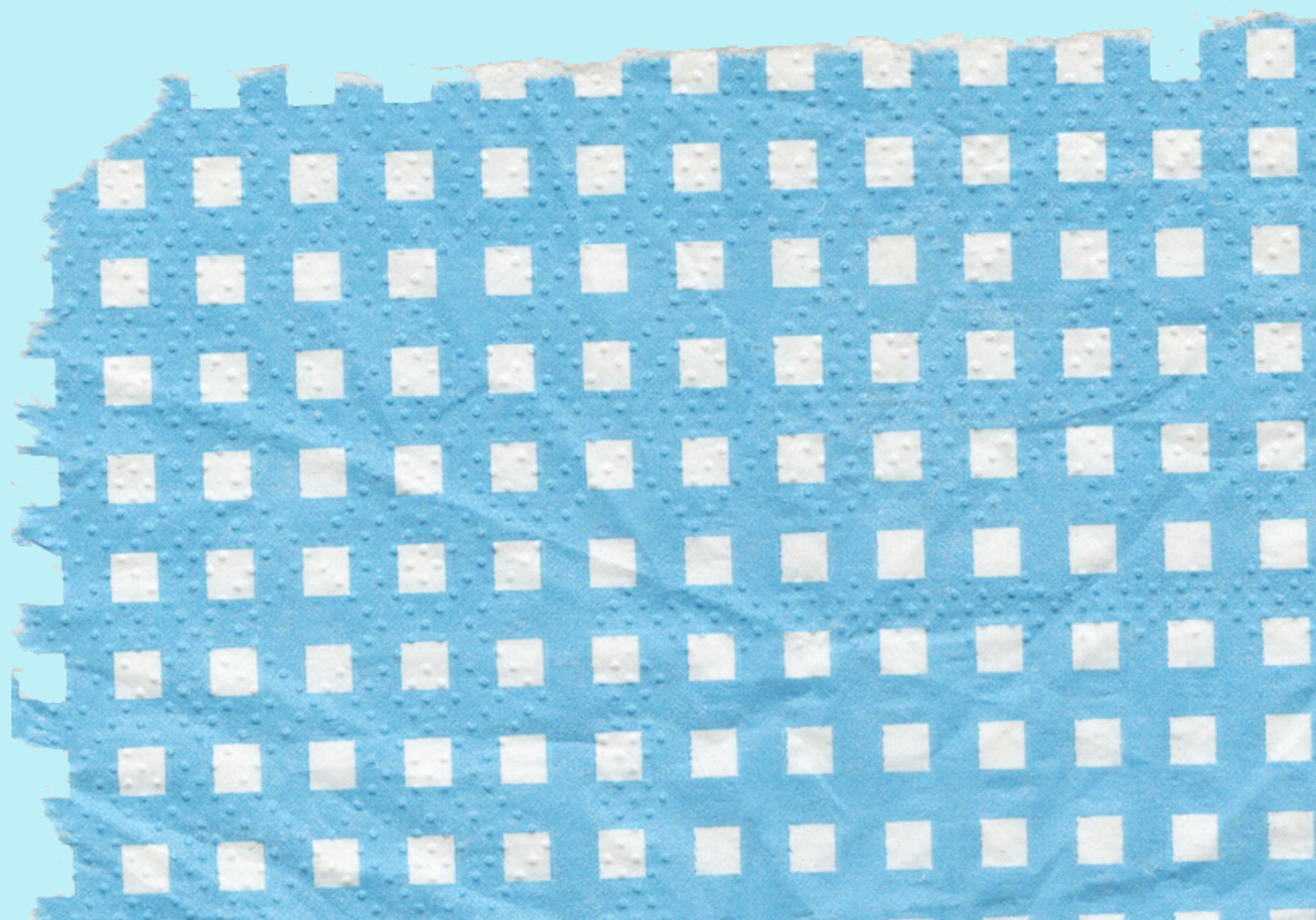
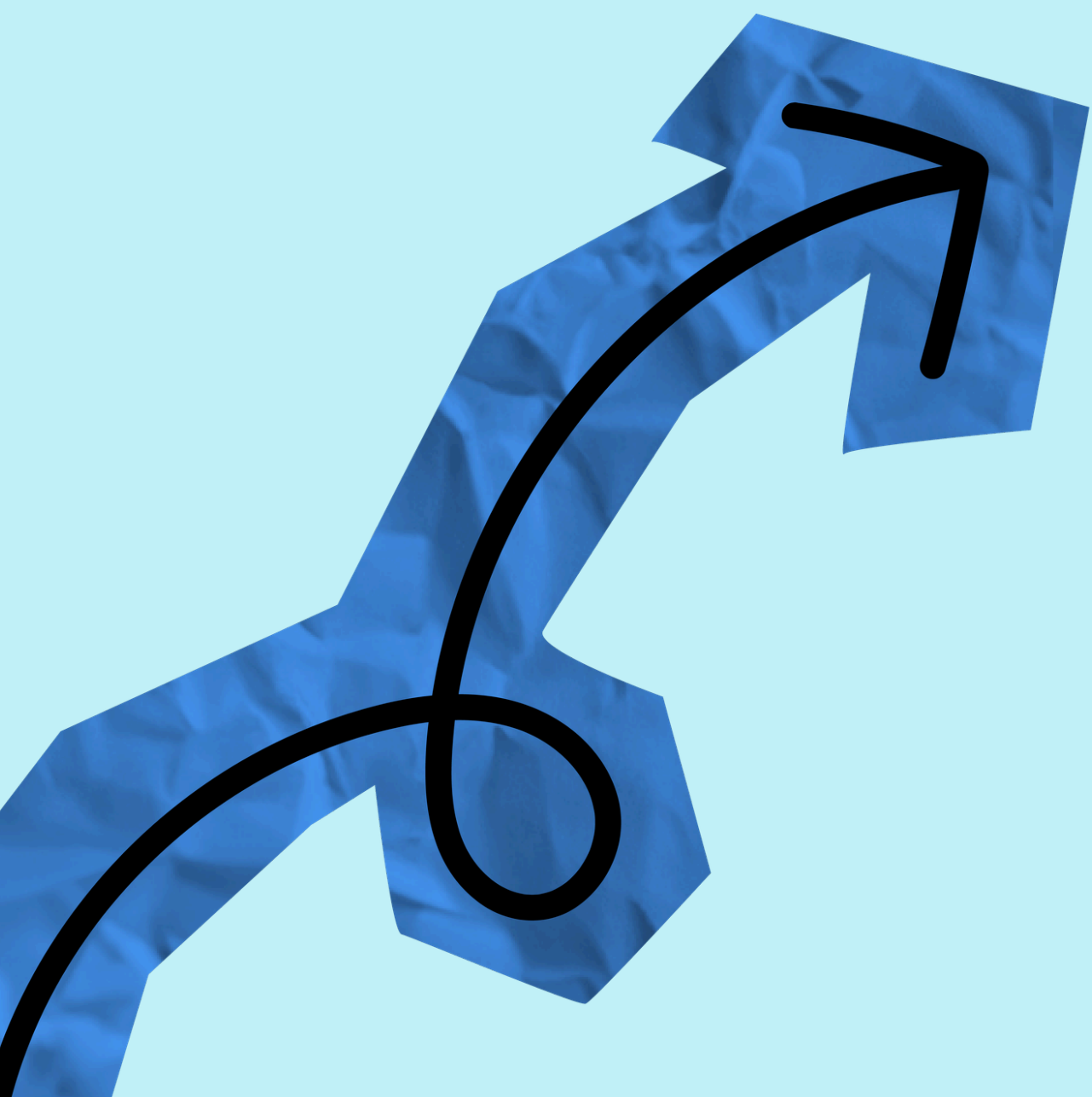


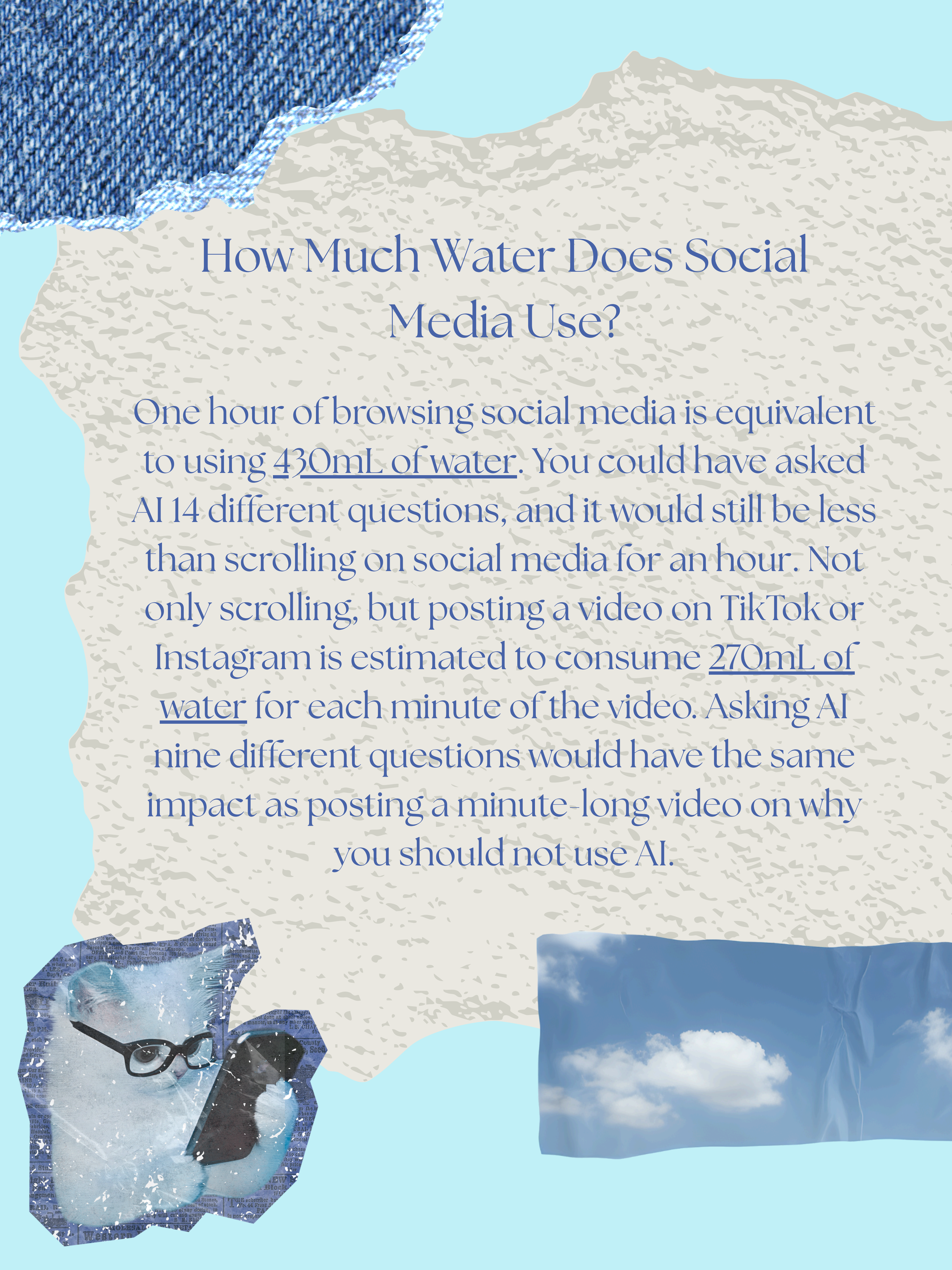
What Does AI Use Water For?

AI heavily relies on water to prevent overheating. Every question you ask AI consumes energy. To combat overheating, AI data centers use water to cool the systems. The water evaporates into cooling towers, releasing that heat into the atmosphere. In some instances, freshwater is needed as a replacement to keep the cycle running. However, some data centers use water treatments such as reverse osmosis, membrane bioreactors, and physicochemical systems that help reduce freshwater use by using treated, recycled water instead.

How Much Water Does AI Use?

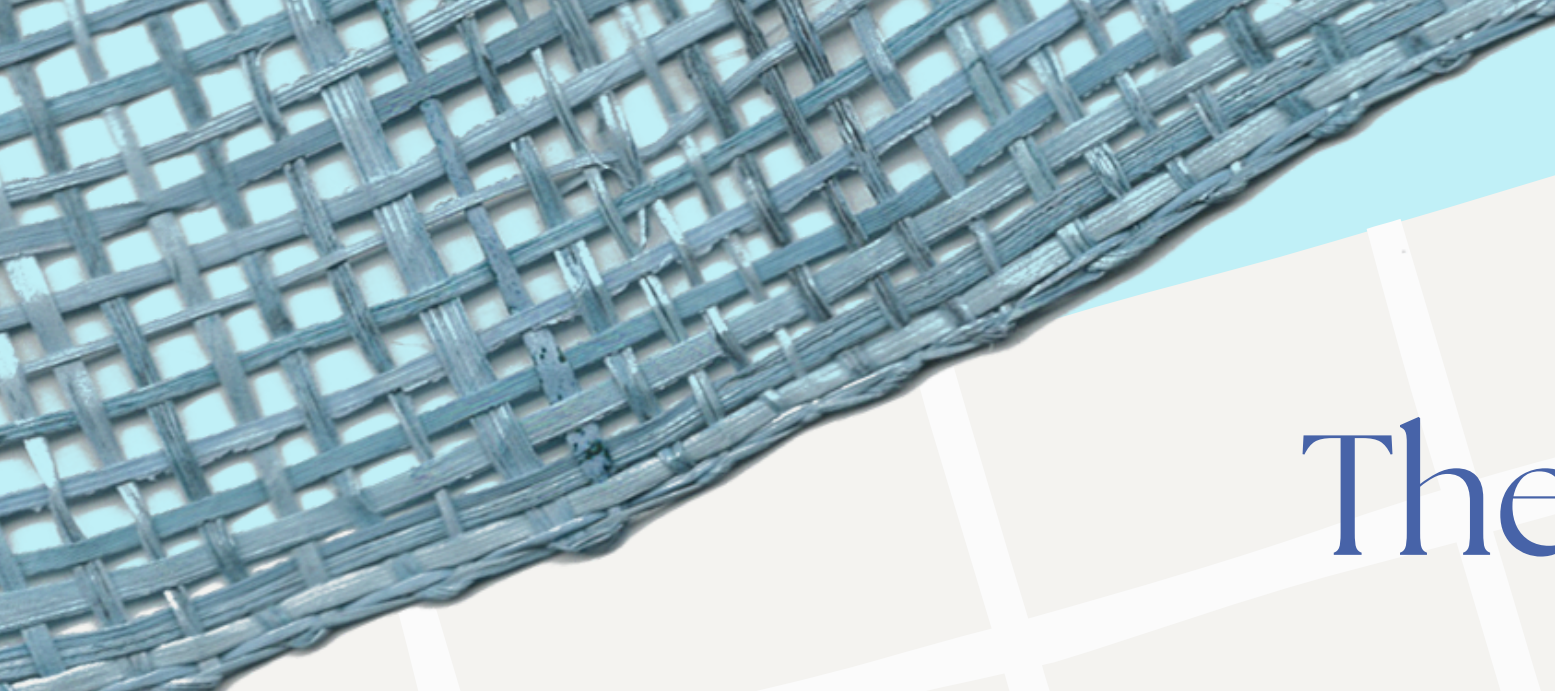
You may have heard that ChatGPT uses 500mL of water, which is equivalent to a one plastic water bottle. But you've only heard the first part. It actually uses 500mL of water per 20 questions asked. In reality, asking ChatGPT only one prompt uses around 30mL of water, which is less water than downloading an app on your phone (40mL of water). Although different AI search engines have varying water footprints, they are all relatively low, especially when compared to other online activities.





How Much Water Does Social Media Use?

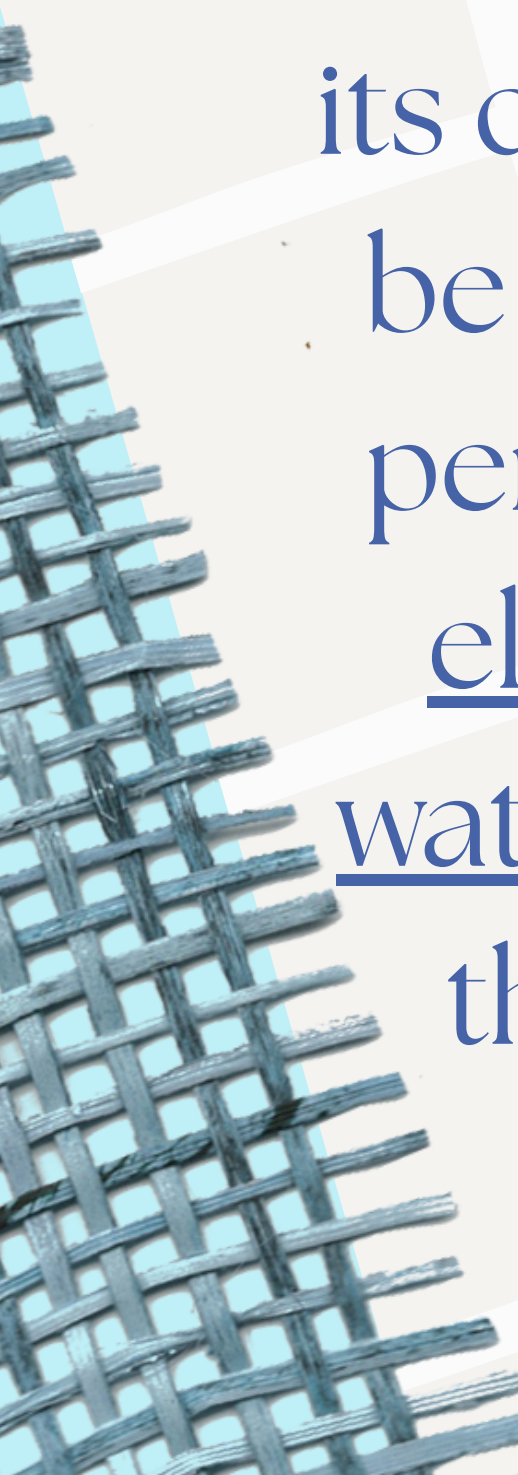
One hour of browsing social media is equivalent to using 430mL of water. You could have asked AI 14 different questions, and it would still be less than scrolling on social media for an hour. Not only scrolling, but posting a video on TikTok or Instagram is estimated to consume 270mL of water for each minute of the video. Asking AI nine different questions would have the same impact as posting a minute-long video on why you should not use AI.



The Verdict

In retrospect, AI is not as harmful as you may have heard it to be. In fact, social media and other online sites pose more harm to water scarcity than AI does. There is a significant difference in numbers when directly comparing the amount of water it takes for just one AI prompt and one hour of scrolling on social media.

Numbers aside, social media is detrimental solely because of the frequency at which society uses it. TikTok has 1.12 billion daily active users, 167 million video uploads daily, and an average of 95 minutes per day on the platform. Although TikTok does not directly disclose its daily water consumption, its direct water consumption can be estimated to be around 260,000-1,300,000 gallons of water per day. This is based on estimated data-center electricity demand and standard data-center water efficiency rates. Most users are unaware of the water footprint that social media carries, making it that much more dangerous.





In comparison, people are still wary of using AI because of its freshness and unfamiliarity.

ChatGPT has 210 million daily users and 2.5 billion prompts daily. ChatGPT also does not disclose its direct water use, but it's estimated to be around 130,000–530,000 gallons of water per day. This information was also collected from standard data-center water efficiency rates.

Nevertheless, AI still contributes to water scarcity, even if its water use is not as significant as social media sites, such as TikTok and Instagram. However, there are ways it can be more sustainable, which companies are currently taking steps towards. If you wish to learn more about it or support the cause, you can visit the Coalition for Sustainable AI, which aims to solve climate issues and protect our environment!

