



## INTRODUCTION

The climate crisis is one of the biggest existential threats humans face. A changing climate is already accelerating catastrophic weather, threatening our food supply, and rendering once thriving communities unlivable. And the sooner we curb greenhouse gas emissions, the better the outcome for future generations.

The fight for a livable climate is a fight against corporate power that promotes fossil fuel dependency as advanced and paid for by oil, gas, and other extractive industries over human good, and a fight against resource and wealth hoarding by wealthy nations at the global majority's expense. These forces have strong motivations to break our movements for climate action, and Big Tech is happily playing along, by offering pro-climate rhetoric but no action, platforming fossil fuel propaganda, and via investments in harmful false solutions.

As part of the Kairos *User Error* series, this report will explore tech's interactions with the forces described above to undeniably feed the climate crisis. Big Tech's actions include:

- Allowing disinformation to flourish online.
- Providing cloud services to help oil and gas companies pump more fossil fuels.
- Participating in trade organizations that lobby against policies that would help the US shrink emissions.
- Producing ever-growing emissions of their own.
- Funding and promoting false solutions.

We end with our demands of Big Tech so they stop contributing to the climate crisis.

## THE CLIMATE CRISIS NOW

The science is unambiguous, but oil and gas companies have stridently and effectively obstructed the change we need. Despite fierce climate organizing, concrete wins have been hard to sustain in the face of the fossil fuel industries' money and influence.

At the federal level, the Supreme Court is setting our movement back by weakening the power of the Environmental Protection Agency and gutting the Clean Water Act. [2] Federal COVID-19 spending bills in 2020 and 2021 contained some wins for transitioning to green energy, but lawmakers with ties to fossil fuel companies have weakened climate legislation.[3]

Against this inhospitable federal landscape, organizers have continued to work against corporate targets directly. For example, grassroots movements brought the Dakota Access Pipeline and Keystone XL to standstills in the mid-2000s. The fossil fuel sector successfully fought these wins, too, although the messaging and durable organizing has had long-term positive impacts for the climate justice movement.[4] Strategic direct action continues with fights against Line 3, a proposed tar sands pipeline from Alberta, Canada to Wisconsin, and Cop City, a proposed police militarization training facility in Atlanta, Georgia's Weelaunee forest<sup>[5,6]</sup>.

Understanding the role of Big Tech is important to fully understanding the drivers of the climate crisis. Tech platforms shape how we access information about climate crisis and whether it is accurate, how we communicate about the things that matter to us, and how we organize to win power and for mutual aid. Tech companies also play a key role as an accelerant of the fossil fuel industry's harms—by sowing popular confusion via disinformation, helping oil and gas do their work, and blocking substantive action to decrease global emissions.

The big 5 tech companies—Microsoft, Amazon, Apple, Google, and Meta—each have climate commitments, but their words are undermined by their destructive actions. As organizers, we need to focus on tech due to its ability to shape information and affect our organizing, as well as its influence and power as both a narrative and material force. And as substantive governmental action remains difficult, direct and corporate targets of all types remain viable pathways to climate action.

## WHAT IS TECH SAYING ABOUT THE CLIMATE CRISIS?

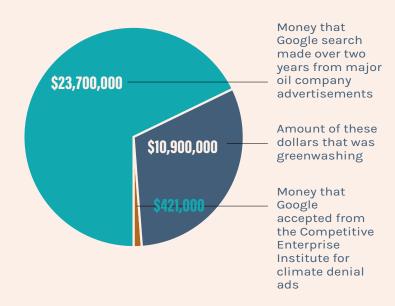
Microsoft, Apple, Google, Meta, and Amazon have all released ambitious climate pledges. The first four purportedly aim to reach "carbon neutral" or "carbon net-zero" status by 2030, and Amazon by 2040. But the reality of these goals is less impressive than they might appear. Some apply to only certain aspects of tech production (ignoring critical portions of supply chains and processes), or are unsubstantiated by actual efforts to offset or use green energy sources. And all five tech companies engage in behaviors that directly contradict their supposed goals for climate mitigation.

# SO WHAT IS BIG TECH ACTUALLY DOING TO HURT OR HELP THE CLIMATE ACTION WE NEED?

# Tech is allowing disinformation to flourish, making it harder for us to organize.

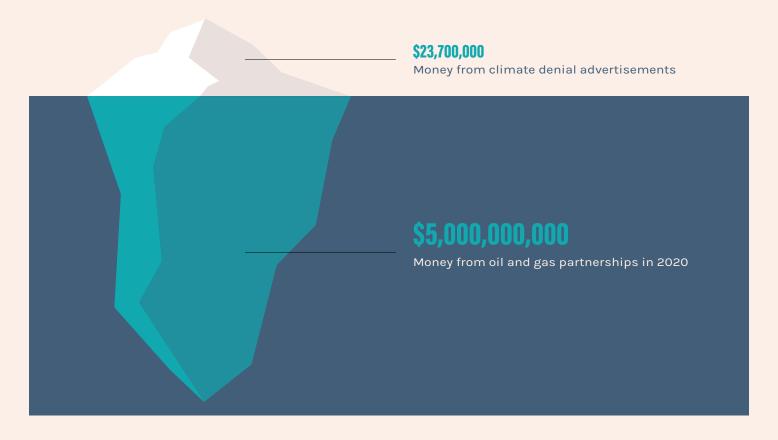
Tech platforms allow oil companies and climate denial groups to place ads that spread disinformation, either by confusing readers about the causes and seriousness of climate change, or by falsely touting positive climate actions taken by major emitters. Misleading or false advertisements should not be allowed—but there's lots of money to be made from the practice.<sup>[8]</sup>

### HOW MUCH MONEY IS GOOGLE MAKING FROM DISINFORMATION?



On top of industry-driven greenwashing, big tech promotes and spreads user-created disinformation. Despite Google's pledge to disallow the practice, YouTube (owned by Google) still allows climate deniers to profit off their lies via paid advertisements on their videos. [9]

Meanwhile, Meta (parent company of Facebook) allows disinformation to spread unchecked in Pages and Groups. They have a "Climate Science Center" to fact-check and offer accurate climate information, but only 3.6% of the disinformation identified by one report was verified, and Facebook was found to be steering around 13 times more traffic to disinformation than to the climate science center.<sup>[10,11]</sup> Clearly, the fact-checking program is insufficient.



Tech makes money from climate change so it's not in their short-term financial interest to combat it with seriousness.

It's not hard to see why tech is making these choices. Again, it's the money talking. And the money they make from oil and gas advertisements is just the tip of the iceberg.

Microsoft, Google, and Amazon have contracts with oil companies to provide cloud services, which help oil companies find more oil and pump it faster and more efficiently. This increases oil company profits while they deliver more oil and gas that's burned for fossil fuels. [14]

The companies often try to spin it as a partnership to make their business more green through increased efficiency, but this is not factually the case–more efficiency means more oil getting combusted and more money for the companies.

"[The cloud-service companies] make a lot of money from our industry...They're going to continue to make a whole lot of money from our industry. But it's not popular to talk about."

—Peter Bernard, oil company data integration specialist [15]







## Their actions—and lobbying affiliations—undermine their stated commitments.

Beyond inaction or even disingenuous partnerships, **Big Tech is spending time and money** opposing policies that would help the U.S. reduce reliance on fossil fuels:[19]

- Apple is a member of the Texas
   Association of Businesses, a
   free-market group with a history of
   denying the human origins of climate
   change, and the Business Roundtable,
   which lobbied against 2022's budget
   bill that contained big incentives for
   green energy transitions.
- Apple lobbies against right-to-repair legislation, which would help the climate by lessening waste and mining.

- Microsoft, Google, Amazon, and Meta are members of the U.S. Chamber of Commerce, which lobbies against regulations to help the U.S. meet its Paris Climate Accords commitments.
- All five companies are paying members of the trade associations National Association of Manufacturers, BusinessEurope, and the Japan Business Federation, which also lobby against climate regulations on behalf of their members.

Microsoft says that their climate work "will be supported by our voice and advocacy supporting public policy that will accelerate carbon reduction and removal opportunities." This commitment is contradicted by Microsoft's trade group memberships. This is not surprising: corporations engage in this type of greenwashing all the time. But users make the platforms, and we can push them to put their lobbying to more ethical use.

# Big Tech's growth and inability to meet their own climate pledges create new climate threats.

The root causes of climate change are fossil fuel extraction and militarization, and we must address those first and foremost.[21, 22] But tech takes energy, water, and minerals to make the hardware and generate the energy to run servers, platforms, and services. Big Tech contributes in a real way to climate change, and the sector's energy use is increasing, thanks to the rise of energy intensive technologies like streaming services, Bitcoin mining, and Al. Because of this, experts fear that, despite energy efficiencies and shifts to sustainable energy, tech's emissions curve will continue to go in the wrong direction.

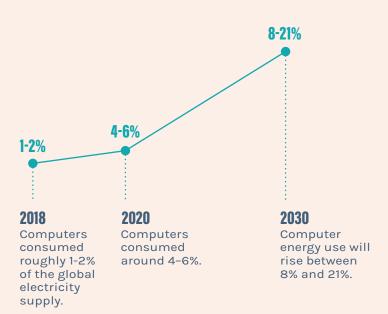
For example, in 2019 Amazon announced its intention to produce net-zero emissions by 2040—but its carbon dioxide emissions grew by 19 percent in 2020 due to a pandemic business boom. [23] And New York State put a ban on new Bitcoin mines after a set-to-be-shuttered gas plant pivoted to mining Bitcoin to stay afloat, thus continuing to pump fossil fuels into the atmosphere. [24] With energy use on the rise, and without feasible green energy plans, tech is facilitating our continued reliance on fossil fuels.

Most major tech companies buy green energy to "offset" their emissions. This action placates rather than solves their energy crises.

### WHAT'S THE PROBLEM WITH "GREEN ENERGY" OFFSETS?

- Carbon credits often do not actually lower emissions as claimed, and many offset locations are poorly regulated and environmentally shady.<sup>[25, 26]</sup>
- Offsets do not take greenhouse gas emissions off the table. They merely expropriate the pollution to another place. Emission reductions are ultimately necessary to slow the curve of catastrophic warming.<sup>[27]</sup>
- Despite the Big 5 Tech companies' pledges to bring their climate impact to net zero or climate neutral, their own roadmaps only reduce their emissions by an average of 40 percent—meaning the companies don't know how they will reach their own goals in just seven years. [28]

## ENERGY USE FOR TECH IS INCREASING, AND TECH COMPANIES DON'T HAVE A PLAN TO BRING THEIR CARBON USE DOWN TO ZERO<sup>[29]</sup>



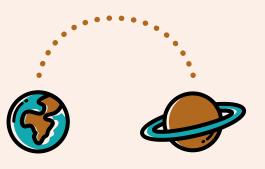
### **HOW MUCH ENERGY DOES TECH USE?**





**TRAINING GPT-3** 

took 1.287 gigawatt hours, or about as much electricity as 120 U.S. homes would consume in a year. [31]



### **STREAMERS**

spent more than 6 billion hours watching 2021's top 10 Netflix shows in the 28 days after each show was released. This generated as much carbon as about 1.13bn miles of car travel—or the amount of gas it would take to drive the approximate distance between Earth and Saturn.<sup>[32]</sup>

# 50 days of power for the average U.S. household. Annually, Bitcoin mining consumes more energy than all but 30 entire countries, which includes the entire nations

of Argentina and the United Arab

takes 1,449 kWh to complete, or

the equivalent of approximately

**ONE BITCOIN TRANSACTION** 

Emirates.[30]

Tech funds and promotes false solutions, like unproven carbon capture and other "climate tech."

Silicon Valley's "move fast and break things" ethos has pervaded their approach to climate action, too, and this philosophy is just as misguided in this context. Without thinking through, nor consulting, those on the front lines of the climate crisis, tech executives and funders are touting and funding unproven, risky, and often harmful "climate tech" ideas. [33, 34]

Microsoft, for example, has pledged \$1 billion for a "climate innovation fund to accelerate the global development of carbon reduction, capture, and removal technologies." These experimental technologies have no evidence of real world success, and they do not reduce carbon emissions.

Climate justice experts call these techno-fixes "false solutions" because they do not address the root causes of climate destruction. Like many other tech innovations, they also have a high risk of unintended consequences. [36]

"What all geoengineering ideas have in common is that they do not include a plan to lower the extraction and consumption of fossil fuels.

In fact, they maintain business as usual while letting "entrepreneurial innovation" play at the problems through speculative, un-proven, profit-driven "techno-fixes." No wonder the fossil fuel industry is promoting it!"

-Climate Justice Alliance [37]

## WHAT CAN WE DO?

Big Tech wants it both ways: getting credit for climate mitigation efforts while raking in the profits that come from aiding and enabling fossil fuel companies. We know another world in which tech works for climate justice is possible; a world where tech companies are accountable to their own users, tie their own futures to the future of the earth, and align their actions accordingly as critical providers of information and powerful political forces.

## **DEMANDS:**

To fight the climate crisis, Google, Meta, Microsoft, Apple, and Amazon need to:

- Support policies that help the U.S. end its reliance on fossil fuels.
- Withdraw from trade groups that lobby against climate mitigation.
- 3 Support climate mitigation efforts that have grassroots support, like shrinking fossil fuel and other polluting industries to cut greenhouse gas emissions at their source. Do not invest in geoengineering or other untested technologies.
- 4 Stop providing cloud services to oil and gas companies. Do not open new partnerships with oil and gas and do not provide other services to them or their supply chains.
- Eliminate climate disinformation on your platforms, by ending ad partnerships with oil and gas companies, prohibiting the monetization of climate disinformation, and ensuring your content moderation systems remove misleading or false climate content, and report those actions transparently.
- Greate and follow measurable plans to get to carbon-zero, not ones based on speculative tech and wishful thinking.

# WE NEED COLLECTIVE ACTION AGAINST BIG TECH.

We envision a tech sector that provides accurate information, uses its political power and wealth to help its users, and lends its technological services to industries that contribute to our future on the planet—let's fight for it together.

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