

I Talked to the Cassandra of the Internet Age

The internet rewired our brains. He predicted it would.

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Michael Goldhaber is the internet prophet you've never heard of. Here's a short list of things he saw coming: the complete dominance of the internet, increased shamelessness in politics, terrorists co-opting social media, the rise of reality television, personal websites, oversharing, personal essay,

fandoms and online influencer culture — along with the near destruction of our ability to focus.

Most of this came to him in the mid-1980s, when Mr. Goldhaber, a former theoretical physicist, had a revelation. He was obsessed at the time with what he felt was an information glut — that there was simply more access to news, opinion and forms of entertainment than one could handle. His epiphany was this: One of the most finite resources in the world is human attention. To describe its scarcity, he latched onto what was then an obscure term, coined by a psychologist, Herbert A. Simon: “the attention economy.”

These days, the term is a catch-all for the internet and the broader landscape of information and entertainment. Advertising is part of the attention economy. So are journalism and politics and the streaming business and all the social media platforms. But for Mr. Goldhaber, the term was a bit less theoretical: Every single action we take — calling our grandparents, cleaning up the kitchen or, today, scrolling through our phones — is a transaction. We are taking what precious little attention we have and diverting it toward something. This is a zero-sum proposition, he realized. When you pay attention to one thing, you ignore something else.

The idea changed the way he saw the entire world, and it unsettled him deeply. “I kept thinking that attention is highly desirable and that those who want it tend to want as much as they can possibly get,” Mr. Goldhaber, 78, told me over a Zoom call last month after I tracked him down in Berkeley, Calif. He couldn’t shake the idea that this would cause a deepening inequality. “When you have attention, you have power, and some people will try and succeed in getting huge amounts of attention, and they would not use it in equal or positive ways.”



Michael Goldhaber
Cayce Clifford for The New York Times

In 1997, Mr. Goldhaber helped popularize the term “attention economy” with an [essay in Wired magazine](#) predicting that the internet would upend the advertising industry and create a “star system” in which “whoever you are, however you express yourself, you can now have a crack at the global audience.” He outlined the demands of living in an attention economy, describing an ennui that didn’t yet exist but now feels familiar to anyone who makes a living online. “The Net also ups the ante, increasing the relentless pressure to get some fraction of this limited resource,” he wrote. “At the same time, it generates ever greater demands on each of us to pay what scarce attention we can to others.”

In subsequent obscure journal articles, Mr. Goldhaber warned of the attention economy’s destabilizing effects, including how it has disproportionate benefits for the most shameless among us. “Our abilities to pay attention are limited. Not so our abilities to receive it,” he wrote in the journal *First Monday*. “The value of true modesty or humility is hard to sustain in an attention economy.”

In June 2006, when Facebook was still months from launching its News Feed, Mr. Goldhaber predicted the grueling personal effects of a life mediated by technologies that feed on our attention and reward those best able to command it. “In an attention economy, one is never not on, at least when one is awake, since one is nearly always paying, getting or seeking attention.”

More than a decade later, Mr. Goldhaber lives a quiet, mostly retired life. He has hardly any current online footprint, except for a Twitter account he mostly uses to occasionally share posts from politicians. I found him by calling his landline. But we are living in the world he sketched out long ago. Attention has always been currency, but as we’ve begun to live our lives increasingly online, it’s now *the* currency. Any discussion of power is now, ultimately, a conversation about attention and how we extract it, wield it, waste it, abuse it, sell it, lose it and profit from it.

The big tech platform debates about online censorship and content moderation? Those are ultimately debates about amplification and attention. Same with the crisis of disinformation. It's impossible to understand the rise of Donald Trump and the MAGA wing of the far right or, really, modern American politics without understanding attention hijacking and how it is used to wield power. Even the recent GameStop stock rally and the Reddit social media fallout share this theme, illustrating a universal truth about the attention economy: Those who can collectively commandeer enough attention can accumulate a staggering amount of power quickly. And it's never been easier to do than it is right now.

Mr. Goldhaber was conflicted about all of this. "It's amazing and disturbing to see this develop to the extent it has," he said when I asked him if he felt like a Cassandra of the internet age. Most obviously, he saw Mr. Trump — and the tweets, rallies and cable news dominance that defined his presidency — as a near-perfect product of an attention economy, a truth that disturbed him greatly. Similarly, he said that the attempted Capitol insurrection in January was the result of thousands of influencers and news outlets that, in an attempt to gain fortune and fame and attention, trotted out increasingly dangerous conspiracy theories on platforms optimized to amplify outrage.

"You could just see how there were so many disparate factions of believers there," he said, remarking on the glut of selfies and videos from QAnon supporters, militia members, Covid-19 deniers and others. "It felt like an expression of a world in which everyone is desperately seeking their own audience and fracturing reality in the process. I only see that accelerating."

While Mr. Goldhaber said he wanted to remain hopeful, he was deeply concerned about whether the attention economy and a healthy democracy can coexist. Nuanced policy discussions, he said, will almost certainly get simplified into "meaningless slogans" in order to travel farther online, and politicians will continue to stake out more extreme positions and commandeer news cycles. He said he worried that, as with Brexit, "rational

discussion of what people stand to gain or lose from policies will be drowned out by the loudest and most ridiculous."

Mr. Goldhaber said that looking at Mr. Trump through the lens of attention gives a deeper understanding of his appeal to supporters and, potentially, how to combat his style of politics. He said that many of the polarizing factors in the country are, in essence, attentional. Not having a college degree, he argued, means less attention from corporations or the economy at large. Living in a rural area, he suggested, means being farther from cultural centers and may result in feeling alienated by the attention that cities generate in the news and in pop culture. He said that almost by accident, Mr. Trump tapped into this frustration by at least pretending to pay attention to them. "His blatant racism and misogyny was an acknowledgment to his supporters who feel they deserve the attention and aren't getting it because it is going to others," he said.

His biggest worry, though, is that we still mostly fail to acknowledge that we live in a roaring attention economy. In other words, we tend to ignore his favorite maxim, from the writer Howard Rheingold: "Attention is a limited resource, so pay attention to where you pay attention."

Where do we start? "It's not a question of sitting by yourself and doing nothing," Mr. Goldhaber told me. "But instead asking, 'How do you allocate the attention you have in more focused, intentional ways?'" Some of that is personal — thinking critically about who we amplify and re-evaluating our habits and hobbies. Another part is to think about attention societally. He argued that pressing problems like income and racial inequality are, in some part, issues of where we direct our attention and resources and what we value.

As someone who writes about online extremism, I found one line of his eerily compelling. "We struggle to attune ourselves to groups of people who feel they're not getting the attention they deserve, and we ought to get better at sensing that feeling earlier," he said. "Because it's a powerful, dangerous

feeling.”

Attention is a bit like the air we breathe. It’s vital but largely invisible, and thus we don’t think about it very much unless, of course, it becomes scarce. If that’s the case — to extend a tortured metaphor — it feels as if our attention has become polluted. We subsist on it, but the quality has been diminished. This is certainly true in my life, where I’ve become so reliant on the constant stimuli of our connected world that I find myself frequently out of control of my attention. I give it to others too willingly — often to those who will abuse the privilege. I’ve also become dependent on the attention of others, even those who bestow it in bad faith. I’ve become a version of the very person Mr. Goldhaber described in 1997, for whom “not being able to share your encounters with anyone would soon become torture.”

Maybe you feel this way too.

“The fundamental thing is that you can’t escape the attention economy,” Mr. Goldhaber told me before we hung up. That much feels true.

But we can try to follow Mr. Rheingold’s advice. We can explore the ways in which our attention is generated, manipulated, valued and degraded. Sometimes attention might simply be a lens through which to read the events of the moment. But it can also force us toward a better understanding of how our minds work or how we value our time and the time of others. Perhaps, just by acknowledging its presence, we can begin to direct it toward people, ideas and causes that are worthy of our precious resource.

In other words, I’m finally going to pay attention to where we pay attention.