

# The Attention Economy

*Why do tech companies fight for our attention?*

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## OBJECTIVE

Learn about the economic factors and larger systems that drive tech companies to sell your attention and behavior to advertisers.

## OVERVIEW

The seemingly free social media products we use every day help us to stay connected, learn new things, and find information. But they also analyze our actions and the data we share, using what they learn about us to trick us into paying attention to them more than we want. They sell that attention – and ultimately changes in what we think and how we behave – to advertisers. These social media products are caught in a race to capture our attention in order to make money.

In this resource, you'll learn:

- Why our attention is valuable to social media companies.
- How that value shapes the design of products we use every day.
- How the financial incentives of these products harm us and society as a whole.

By understanding these key points, you'll begin to see how you can help push for technology that aligns with humanity's best interests.

## INTRODUCTION

As the generation that has grown up with social media, you know it has incredible power. That power can build connections, lift up our voices, and help us solve problems.

But social media can also distract us, divide us, and downgrade our collective ability to solve problems. Consider these excerpts from [MySocialTruth](#), a story bank project for young people to share their experience on and off social media:

*"I constantly refreshed my likes as they came in, spent hours reading and replying to comments and taking in other people's posts. I became obsessed with living what social media promotes as a worthwhile and perfect life."*

-Anuja, Age 20, Fresno

*"My morning time ritual became an afternoon ritual to a night ritual, to an all day ritual where I would habitually check my phone every hour, eagerly waiting for the next notification to come in."*

-Sam, Age 18, New York City

For Anuja and Sam, the addiction and distortion they faced on social media was not an example of technology that supports our wellbeing and larger goals.

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## CONSIDER:

Think about your own experience on social media.

1. Do Anuja and Sam's experiences of addiction and distortion compare to yours?
  2. How are they similar?
  3. How are they different?
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Let's go behind these experiences to look at how social media companies operate.

QUESTION

1

How do social media companies make money?

*“We are in a time where we’ve sort of accepted the unrestricted, unregulated mining of the human consciousness, the harvesting of human attention. We are the resource and I think it takes its toll.”*

–Tim Wu, author of *The Attention Merchants*, on [Your Undivided Attention](#)

Our attention is a limited resource. There are only so many waking hours in the day, and therefore only so many things we can focus on. When we pay attention to one thing, we’re not paying attention to something else.

This fact of life has been deeply complicated by technology. With more information and more choices at our fingertips than ever before, there are unprecedented demands on our attention.

This feeling of constant distraction is fueled by tech companies that rely on capturing your attention to make money, normally by selling it to advertisers.

Advertising has always been about convincing you to do what the advertiser wants. It could be buying a new pair of shoes, taking an online class, or voting for a political candidate.

Traditional advertising on TV, newspapers, magazines, or billboards is very straightforward: everyone sees the same ads, and the ads don’t feed precise data back to advertisers about the people looking at them. Social media has several unique advantages that make advertising vastly more powerful:

→ **Artificial Intelligence:** No other media draws on massive supercomputers to predict what it could show to perfectly keep you scrolling, swiping, or sharing.

- **24/7 Influence:** No other media steers two billion people's thoughts 24/7—spending over 150 minutes on social media a day—from the moment we wake up until we fall asleep.
- **Social Control:** No other media redefines the terms of our social lives: self-esteem, when we believe we are missing out, and the perception that others agree with us.
- **Personalization:** No other media uses a precise, personalized profile of everything we've said, shared, clicked, and watched to influence our behavior at this scale.

All this gives social media intimate access to your thoughts and behavior. The goal is to find the right moment while you're online to strategically grab your attention and insert an ad that you'll engage with. That's what these platforms promise to their advertisers.

Each app is caught in a race for your attention, competing not just against other apps, but also against your friends, your family, your hobbies, and even your sleep.

Social media companies keep finding new ways to win this race, making them among the most valuable companies in the world: Alphabet (the company that owns Google) is worth \$1 trillion, and Facebook (which also owns Instagram and WhatsApp) is worth about \$700 billion.

How are these extraordinary valuations possible when social media companies give away their products for free?

Because social media companies don't sell software, they sell influence. They collect in-depth data about how to influence your decisions, then sell that influence to the highest bidder. The more time they can get you to spend scrolling and clicking, the more data they can collect and the more ads they can sell.

The reality is, social media apps are free to us because we are the product being sold.

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## CONSIDER:

We don't pay up front to use apps like Facebook, Instagram, Snapchat, and TikTok, but the competition between these platforms to capture your attention in exchange for advertising revenue is fierce. Because of this competitive environment, these platforms are using ever more sophisticated techniques to grab your attention and keep it.

1. Does this change how you think about your use of these apps?
  2. Why or why not?
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## QUESTION

# 2

## How does competing in the attention economy shape the social media products we use?

The **attention economy** is made up of anything trying to capture our limited attention. Because companies are able to profit from your attention, there is intense competition within the attention economy. Social media apps are incentivized, or motivated, to develop increasingly persuasive techniques—notifications, targeted content, personalized feeds, and more<sup>1</sup>—to:

- Keep you on the app
- Get your friends to use them
- Collect more data about you so that they can get better at capturing your attention and influencing your behavior

That last point is particularly key to their success. Everything we do online is monitored and analyzed. Everything we've ever clicked on, how long we've hovered over a post in our feeds, how deep we've scrolled on our friends' profiles—it's all data that helps companies study us better. They are able to track behaviors like:

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<sup>1</sup> You can learn more about these techniques in the Persuasive Technology resource.

- The types of videos we watch
- The news we click on
- The products we search for
- Who we talk to
- Which posts we linger on

Apps then feed this information into complex **algorithms**<sup>2</sup> that determine which content to show us. Generally, algorithms use what they know about us to show us content that gets us to like, click, and share.

*“This is what every business has always dreamt of: to have a guarantee that if it places an ad, it will be successful. That’s their [social media companies’] business. They sell certainty. In order to be successful in that business, you have to have great predictions. Great predictions begin with one imperative: you need a lot of data.”*

—Shoshana Zuboff, professor and author of *The Age of Surveillance Capitalism* in *The Social Dilemma*

This doesn’t happen through sponsored ads only: videos that autoplay, promoted posts from influencers, and clickbait sites that cleverly disguise ads in posts are just a few of the examples of types of services paid for by advertising. On top of that, advertisers are able to **target** their messages to specific audiences: for example, by zip code, gender, age, relationship status, hobbies, job, education, and much more. (Check out the screenshot below to see just the basic targeting options Facebook offers to advertisers.)

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<sup>2</sup> Algorithms are instructions that tell a computer how to operate. Algorithms in social media apps prioritize what content we see based on how likely we are to interact with that content. We’ll discuss them further in the Persuasive Technology resource.

Facebook Ad Targeting Options by Demographics, Interests, and Behaviors			
Demographics	Interests	Behaviors	More Categories
<p>Reach people based on education, employment, household and lifestyle details. Some data is available for the US only.</p> <p>Education</p> <p>Financial</p> <p>Life Events</p> <p>Parents</p> <p>Relationship</p> <p>Work</p>	<p>Reach specific audiences by looking at their interests, activities, the Pages they have liked and closely related topics.</p> <p>Business and industry</p> <p>Entertainment</p> <p>Family and relationships</p> <p>Fitness and wellness</p> <p>Food and drink</p> <p>Hobbies and activities</p> <p>Shopping and fashion</p> <p>Sports and outdoors</p> <p>Technology</p>	<p>Reach people based on purchase behaviors or intents, device usage and more. Some behavior data is available for US audiences only.</p> <p>Anniversary</p> <p>Consumer Classification</p> <p>Digital activities</p> <p>Expats</p> <p>Mobile Device User</p> <p>Mobile Device User/Device Use Time</p> <p>More Categories</p> <p>Politics (US)</p>	

Some of the basic targeting options Facebook offers to advertisers.

More advanced options allow advertisers to target based on complex psychological factors. Say that someone wanted to target information at people likely to believe in conspiracy theories. They could identify a small group of conspiracy theory believers, then use “Lookalike” targeting to point ads at millions more. This technique has been used by everything from small businesses looking to find a niche audience to foreign governments trying to stop people from voting.

We’re told by social media apps that their goal is to connect, educate, and entertain through the sharing of photos, text, and information. The technology certainly does that some of the time. But once we understand how social media companies’ **business model** (how a business designs products and services to generate revenue) requires selling our attention and behavior, it’s obvious that their interests are not aligned with ours.

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## CONSIDER:

In Shoshana Zuboff's quote above, she says that the ability to guarantee a successful ad is "what every business has always dreamt of."

1. Why is this ability to make predictions accurately so valuable to businesses?

Now, take a look at the apps you use the most. Consider the things you post and the way you use the app.

2. What do you think the app could know about you?
  3. How do you think that knowledge helps them sell advertising?
  4. How do you think they use that information to keep you engaged?
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## QUESTION

# 3

## How does the race for attention distort how we see the world?

*"I like to say that algorithms are opinions embedded in code...and that algorithms are not objective. Algorithms are optimized to some definition of success. So, if you can imagine if a commercial enterprise builds an algorithm to their definition of success, it's a commercial interest. It's usually profit."*

-Cathy O'Neil, PhD, Data Scientist and Author, in The Social Dilemma

Because social media apps are caught in a race for our attention, they tend to promote more provocative, attention-grabbing content. That's what keeps us engaged and coming back. Emotionally-charged content on social media achieves between 17-24% more engagement per "moral-emotional word" than content without it.<sup>3</sup>

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<sup>3</sup> <https://www.pnas.org/content/114/28/7313>



At the same time, everyone generates so much content each day that it's impossible for platforms to show it all to us. Why do you see some posts and not others? Algorithms decide. They pick the content that is most likely to keep us liking and scrolling. They show us the stuff that's emotionally engaging and hide everything else.

We end up in an environment where we are all in competition with each other for attention. If we want our voices to be heard, we need to have more interesting posts. Usually that means:

→ **More hyperbolic language**

*"This is the most amazing cat video I've ever seen!"*

→ **More "beautiful" photos**

*enhanced by filters*

→ **More frequency**

*more chances to get attention*

If we want to be seen, we need to construct a less authentic version of ourselves and our lives, one that people will like, comment on, and share– and that algorithms will pick up and amplify. If we feed the algorithm, we get rewarded with attention; if we ignore the algorithm, then we feel like we're being ignored.

In the process, we're doing companies' work for free: we are creating the content they use to grab our attention. What's more, the people with the most attention-grabbing content become influencers, who are then paid to keep coming up with the most attention-grabbing content.

In this environment, we see increasingly fake versions of each other, as well as a fake version of the world around us. The algorithm doesn't show you everything that the people you follow post– it shows you the content that is most likely to get you to like and share.

If you like fashion you'll be surrounded by friends and influencers being glamorous. If you care about the environment, you'll be surrounded by emotionally intense calls to save the planet. You'll see a uniquely crafted version of reality that is more sensational than the real thing, since that's what will keep your attention.

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## ACTIVITY:

Find a partner and open up the same social media app. Scroll through their main feed (and please refrain from looking at any of their notifications, messages, etc.).

1. What is the same about your feeds?
2. What is different?

Now, think about someone who deeply disagrees with you about some of your core beliefs.

3. How might their feed look different from yours?
4. What do you think their feed does to their view of the world?
5. What does your feed do to your view of the world?

**NOTE:** *Please don't share your feed or read someone else's feed without mutual consent. If you're working in a group, ask for two volunteers to share their feeds with each other and get permission to share their answers with the group.*

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Consider the big picture. What happens to our collective view of reality when social media companies show each of us different information to keep us engaged? When we're in competition to get the most likes and shares? And when the most sensational content is what helps us feel seen?

We quickly end up on a path to a distorted view of both reality and ourselves.

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QUESTION

4

**What do the distortions of the attention economy mean for our future?**

*“I really struggled when I looked in the mirror after joining social media – I’m too fat, or I have ugly features, or my neck is too long, or my hair doesn’t frame my face correctly. I overthought every word that I spoke for fear of being disliked by someone. It was always something, and it still comes back every once in a while. I also have seriously struggled with depression and anxiety that I never had before social media.”*

–Morgan, Age 14, St. Louis, MO

Morgan’s story from #MySocialTruth is just one of billions of experiences on social media platforms distorted by the attention economy. To understand why stories like this one keep happening around the world, we need to understand the **system** that produces them.

Stories like this are part of a **pattern** of experiences that show up again and again in social media. These patterns are the results of **mechanisms** like algorithms that optimize for engagement, concrete features that define our experience with technology.

These mechanisms, in turn, are the result of **ways of thinking** within technology companies. Assumptions like “if people are engaging with our product it must be helping them live better lives” are baked into the way that technology is built.

Together, these patterns, mechanisms, and ways of thinking make up a system that has harmed society in countless ways, including:

- **Skewing our Sense of the World:** Algorithms promote misinformation, conspiracies and fake news.
- **Undermining our Relationships:** A focus on short digital communication results in less empathy, more confusion, and misinterpretation.

- **Disrupting Attention & Cognition:** Constantly checking our phones leads to loss of crucial abilities including memory and focus.
- **Degrading Physical & Mental Health:** Social media use has been shown to contribute to stress, loneliness, and addiction.
- **Polarizing our Politics & Elections:** Political influence sold to the highest bidder leads to widespread propaganda, distorted dialogue, and voter suppression.
- **Amplifying Systemic Oppression:** Technology built by a small number of privileged engineers often amplifies racism, sexism, homophobia, and ableism.
- **Challenges for Young People:** Research shows that harms from developmental delays to increased risk of self harm are particularly prevalent among young people.

Each of these problems is the subject of extensive study.<sup>4</sup> While they may seem distinct, they share a root cause: technology that is incentivized and over-optimized to capture attention from its users.

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## QUESTION

## How do we change such a big system?

# 5

When we consider the scale of these harms and the size of the largest companies competing in the attention economy, we can easily feel overwhelmed. All of us have complicated relationships with technology, and most of us don't have a great way to talk about them. What's more, we don't want companies taking advantage of us.

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<sup>4</sup> We'll get into them more deeply in our The Consequences resource. You can also learn more and see citations at [ledger.humanetech.com/](https://ledger.humanetech.com/).

Consider some assumptions we have about social media. We might think that

- ...we need to be on social media because everyone else is.
- ...having a large number of friends online is important.
- ...constant engagement on social media is useful.

In order to build a better system we will have to deeply reconsider these beliefs and find new ways to connect around what matters to us. We will go deeper into some ways to do this in later resources.

Beyond individual change, advocacy is an important way to push for change. When the public raises their voices and puts intense pressure on companies, the companies are forced to spend time and money to address the harms. Their once-profitable business model can become unsustainable.

For instance, once-unstoppable cigarette companies have been forced to pay for the public health costs of their products, and for anti-smoking marketing campaigns. Oil companies are pressured to make clean energy investment as the costs of climate change become clearer to an increasingly activated public. Consumer advocacy has made a difference in industries ranging from meat-packing to pesticides.

Technology—especially social media—is facing this same reckoning today, as users, governments, and technologists alike come to understand just how dangerous these products are for society, and how quickly the fixes must happen.

Supporting one another is the first step towards understanding how to push back against technology that creates harm. We can help each other by educating ourselves, demanding more industry regulation, and building new technology that is built on better assumptions.<sup>5</sup>

Often, politicians and tech workers have conversations about young peoples' experience on social media without their voices in the room. You will inherit the world that is made by their decisions. When you can clearly articulate your experiences and the change that you want to see, you add a much-needed perspective to the conversation about transforming social media.

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<sup>5</sup> We'll explore how we rebuild the system and the possibilities for humane technology more in-depth in the Demand Humane Technology resource.

This makes you especially powerful advocates for change. As the generation most deeply impacted by these issues, your truth is most potent when it's voiced by you.

When you share your stories, organize your communities, and demand change, the world will listen.

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## REFLECT:

We've discussed how technology designed to capture as much attention as possible from as many people as possible creates major societal harms.

1. What would you like to see change about the technology you use every day?
  2. What beliefs and values would tech companies need to have to make those changes?
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## Go Deeper

→ [Listen to economist Kate Raworth on the \*Your Undivided Attention\* podcast.](#) Kate's framing can teach us a lot about how to transform the economic model of the technology industry and help us move from a system that values addicted, narcissistic, polarized humans to one that values healthy, loving and collaborative relationships.

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## WHAT'S NEXT?

*How does technology use design to influence my behavior? Learn about the features of persuasive technology in our next resource.*