TIK TOK NOW SPECED

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a zine about understanding, interrogating, and changing your algorithmic content feeds UC Berkeley School of Information

Publication: Froggy Computing

Productions 2022

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Introduction

A person who looks like you, talking about how they are planning to get plastic surgery. Someone with your career or hobbies, living in your city, recommending places to have the perfect Sunday brunch. Ads targeted to your clothing size and height, and "signs you have ADHD" ads that make you start to question if you have it.

If you saw these videos on TikTok, would you find them *uncanny* or *helpful*?



Every day, whether you are aware of it or not, algorithms are deciding what you watch, listen to, and consume. This is the world of algorithmic content recommendations – videos or other media recommended to you automatically by a computer program based on your digital activity, identity, and interests.

How do we understand how algorithmic content recommendations are affecting our collective emotional, mental, and physical well-being? Unlike harassment or hate speech, the way these algorithms affect us can be subtle, but builds over time.

In this zine, we are interested in helping you make sense of your experience with algorithmic content recommendations so you can shape your social media to be healthier for you. "Every new interaction helps the system learn about your interests and suggest content - so the best way to curate your For You feed is to simply use and enjoy the app."

— TikTok Newsroom

TikTok's For You page is a personalized, never-ending stream of videos that are curated based on what TikTok guesses to be your interests.



These are all videos that people have seen on TikTok, and described as being potentially harmful to them or others like them.

Chapter 1 and 2 will teach you how to do algorithmic sensemaking. We will help you make sense of your own For You page, while sharing stories of other people's experiences with TikTok to show you what personalized algorithmic content harm can look like.

After you get a better sense for how you want your algorithm to be different, **chapter 3** will show you how to influence the algorithm to change. (If you are currently experiencing harm on TikTok and just need solutions, feel free to skip to chapter 3!)

Chapter 4 shares some technical tools to help you download and explore your own TikTok data. Lastly, find our hopes for the future and frequently asked questions at the end of the zine.

As opposed to the mindless scroll, this zine proposes that you take some time to reflect and make sense of your own For You page algorithm – is it truly serving you in the ways that you want? So, let's get started and learn how to unwrap your TikTok feed.

How do you feel about your TikTok For You page?



CHAPTER 1: Unwrapping Your TikTok Experience

In this chapter, we'll do an activity in which we look back at your own TikTok feed, identify how the algorithm may be affecting you, and make sense of those influences over time.

The goal is algorithmic sensemaking: becoming more aware of how your content recommendation algorithm impacts you. We'll start off by exploring a record of your algorithmically driven life - what sorts of videos have I been shown, and how did I feel? - to build this awareness.

"If I get a lot of those types of videos in a row, or shortly one after another, I realized I internalize those feelings a lot more than I consciously acknowledge."

— P3, discussing videos of queer stereotypes and videos of people who seem to show perfect lifestyles

Rather than just sitting with vague feelings of discontent, you can realize how peppy nutrition influencers have made you feel insecure, how overly defeatist videos on climate change stress you out, or how misinformation about your community makes you worry about others like you.

These are real things that other people realized about their TikTok experiences after conversation with us.

This might feel obvious in hindsight - but, when over-whelmed by an endless stream of videos and emotional nudges, it can be hard to recognize this.

"Some content is concerning to me because people are peddling misinformation [about ADHD] to get a lot of views, but there are people on the app who are going to take it very seriously.

— P3, discussing how she has ADHD and is concerned about people having conceptions about her due to misleading TikTok videos

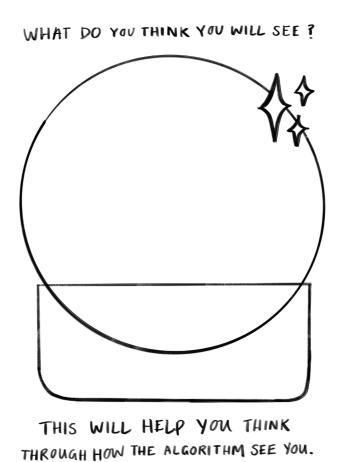
It's a sign that we might not always be aware of our struggles until we slow down, stop scrolling, and take a moment to reflect.

"I've seen content where creators are like I didn't use any hashtags, so if you're here, that means you're: 1) queer, 2) a witch, or 3) Black. And like maybe I'm some of those things but I'm not all of those things."

— P2, discussing how they are not sure why they are recommended certain content

Instructions

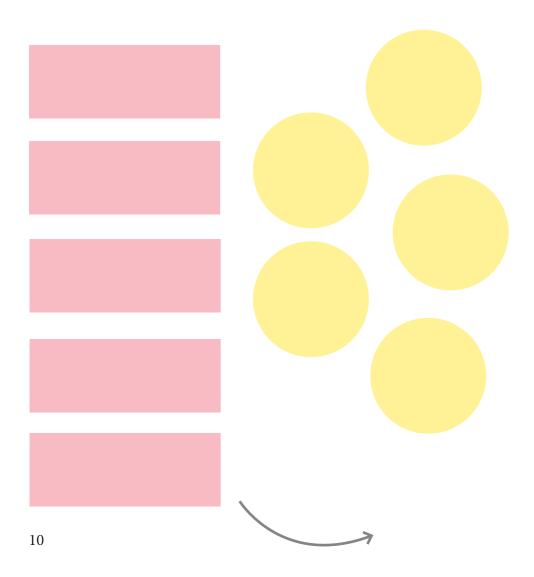
First, predict what kinds of videos you might see on your tiktok feed if you opened it right now. Archaeology digs? DIY electronics? Political debates? Draw or write your predictions in the crystal ball.



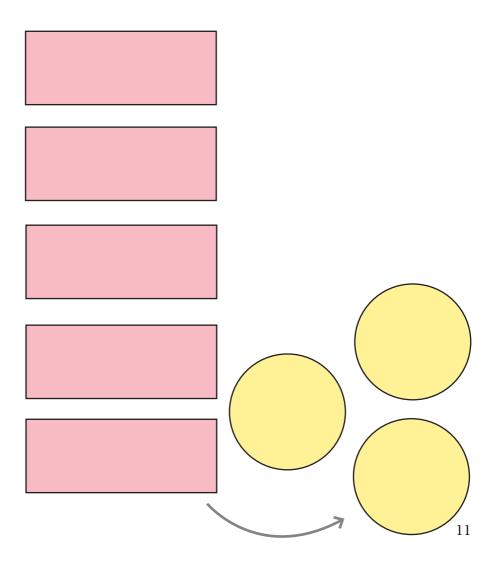
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Now, watch 5 Tik Toks. What is each about? Write down what each Tik Tok was about on the pink labels provided.

How did each TikTok make you feel? Joy, surprise, concern, sadness, grief, whimsy, tickled, inspired, curious, excited? Draw or write about the feelings on the circles provided, and connect each TikTok to the feelings you recorded.



Watch 10 more TikToks. Once again, write down what each Tik Tok was about on the pink labels. Try to draw arrows to the emotions from earlier to these Tik Toks (or create new bubbles).



Congrats! You just did algorithmic sensemaking. Rather than letting your experience with the algorithm go unspoken and unrecorded, you took some time to think about how it might affect you.

How did	low did it feel to do this activity?							

While you don't have to do this every time you use TikTok, it may be helpful to revisit once every few weeks or months to consciously think about what types of videos elicit different emotions, and what you want to see more or less of.

Read on to learn about what kinds of harms this practice can reveal, how to protect yourself going forward, and how we can make this process more accessible to all. Throughout the rest of this zine, we have incorporated more sensemaking activities to do on your own time.

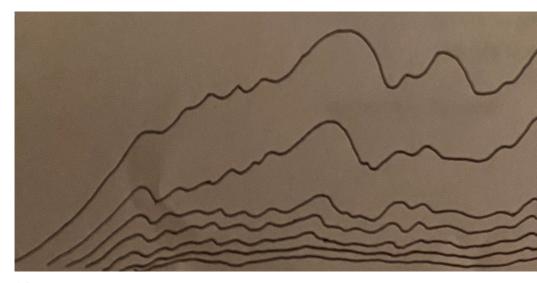
Chapter 2: How Algorithms May Harm You

Hopefully, after chapter 1, you have jotted down some thoughts on how your TikTok feed makes you feel.

We know these feelings can be fleeting – you might see a video that makes you feel slightly uncomfortable and insecure, and forget about it a few seconds later.

However, your feelings are still valid, no matter how minor or major.

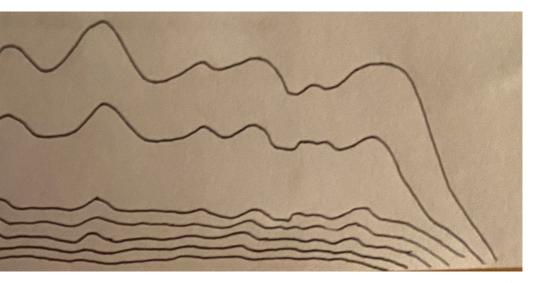
They accumulate over time into **algorithmic content harm** - the psychological, social, physical, or other harms experienced by someone while they are interacting with content that is algorithmically recommended to them.



Algorithmic content harm should be considered in the aggregate and is **slow violence**, a term borrowed from Rob Nixon, a scholar of post-colonial environmental studies, to describe gradual, delayed harm over time.

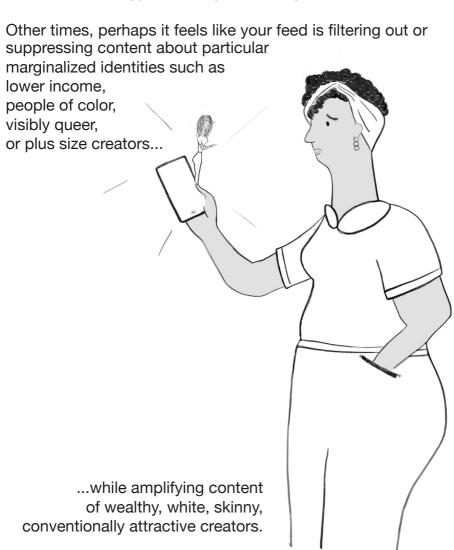
Because each video passes by in a matter of seconds, it is hard to identify how tens of thousands of videos add up over months to build unhealthy patterns of thinking or affect your behavior, identity, and mental health in negative ways.

To make this identification process a bit easier, we collected stories about different types of algorithmic content harms from people who use TikTok and other social media platforms. Read through and see if you relate to any of them.



Content related to your identity or community

Sometimes algorithms might deliver content that shapes or reinforces stereotypes about your identity.



What are identities that are not yours, but you would like to see more of on your For You page?							

"The algorithm was seeing how long I spent on videos and recommending more white creators. It was internalized racism."

[—] P2, discussing how they began to be shown only white creators despite an initially diverse set of videos

Sometimes, the algorithm may even continuously show you content that is discriminatory or touches upon systemic insecurities about your identity.

For example, Asian women might be shown videos about plastic surgery on low bridge noses. This is how algorithmic content recommendations can end up replicating (and amplifying) the harmful effects of colonialism that have caused many women of color to seek unrealistic Western beauty standards.

When content is related to your identity, even if it is harmful, morbid curiosity may make it hard to scroll away.

"TikTok makes me feel inadequacy...for example, videos that say if you are queer, you definitely look a certain way."

— P3, discussing how they enjoy queer content on TikTok but some of it makes them feel insecure

"I see trans, genderqueer, people with disabilities being mocked in videos based on their identity...I am trans, and it makes me feel so excluded and not welcome by society."

— P5, discussing videos of discrimination on their TikTok that is associated with their own identity

Can you think of TikTok videos that replicated societal

expectations or affected insecurities about your identity?							

Content related to your traumas or insecurities

It can be triggering to read about, think about, and view content that invokes your past traumas or vulnerabilities. Before you read on, here is an exercise we recommend you do to ground yourself.

Imagine you are in a bubble. You can see out into the world, but nothing can touch you while you are inside it. The bubble is made of something soft and malleable, yet so strong that it cannot be pierced.

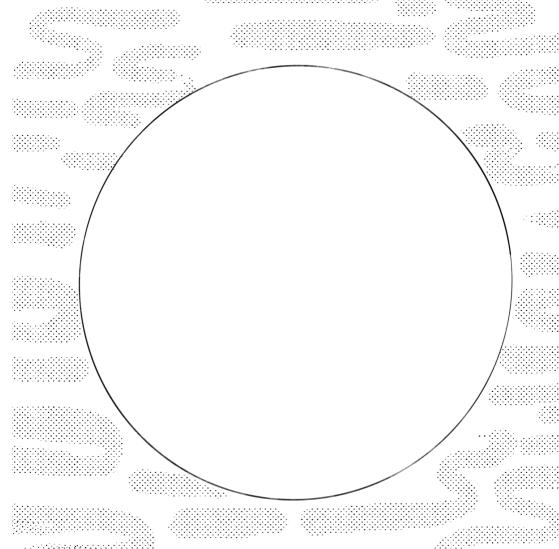
In this bubble, you have everything that makes you you.

What are your values?

Who are the people you love the most?

What are some of your favorite things?

Write down the answers to these questions in the bubble on the other side of the page.



Whenever you are feeling triggered or experiencing negative emotions such as sadness, anxiety, or fear, imagine you are in this bubble -- with your values, loved ones, and favorite things.

Bad things happen in the world. It is okay to feel things and respond emotionally when you come across bad things, but this grounding exercise is meant to help you remind yourself of who you are so you can process them better.

Everyone's vulnerabilities are different -- content can be harmful to individual people based on their own traumas, insecurities, or past experiences.

Sometimes this type of algorithmic content harm is mild. You might see content and feel that it has a minimal effect on you, because it touches upon past issues that you have already processed.

"It could have [affected me] 10 years ago when I was a lot younger and more easily influenced by things like this. But it doesn't have a direct impact on me now."

— P4, discussing toxic body positivity posts and influencers who try to seem relatable but fit societal beauty standards

TW: The quotes on the next page include references to sexual assault, violence, substance abuse, suicide, and eating disorders. There are no graphical descriptions of content, but there are quotes of participants sharing how they feel when they see this content.

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Other times, this type of algorithmic content harm can be triggering, elicit deep emotional harm, or encourage unhealthy behaviors.

Some content is so triggering that it should be removed from the platform entirely. Some common types of videos in this category of harm include videos related to sexual assault, violence, self-harm, racism, substance abuse, and eating disorders.

"I feel like i'm in a wild game of cat and mouse, with [the algorithm] narrowing me down with hyper targeted ads more and more - which are supposed to be helpful, except it's disturbing when it's about suicide, eating disorders, and depression.

I want to be browsing and seeing my friends and how they're doing, cute rabbit photos and baked goods, not hey you're likely eligible for a study on people who've attempted suicide in the last X time which is hyper accurate."

— A, discussing ads they see on Instagram

"Some of this content...
makes me so anxious, and so
stressed. And sometimes I
hate myself... and who I am."

—P5, discussing videos including violence, Black people being discriminated against, sexual assault against minors, and promotion of substance abuse

But this type of algorithmic content harm does not necessarily violate TikTok's policy guidelines. It can be anything that causes someone to recall a traumatic experience.

Even content like "What I Eat In A Day" videos can be calming to some, yet stressful or triggering to others who have a history of disordered eating.

Content related to your insecurities or past experiences can build up to harm by encouraging negative behaviors, even if you do not find each video individually harmful or severe. For instance, the videos you see can encourage unhealthy dieting, compulsive shopping, or "doomscrolling" that keeps you scrolling for hours through depressing news. Think of the ways that TikTok affects or triggers your insecurities, traumas, and past experiences. Write them down below.



IMAGINE YOU ARE IN A BUBBLE ...



IF YOU'RE EVER FEELING BAD, IMAGINE BEING ENVELOPED IN ITS COMFORTING AND GROUNDING

EMBRACE *

Whenever you are feeling triggered or experiencing negative emotions such as sadness, anxiety, or fear, imagine you are in this bubble -- with your values, loved ones, and favorite things.

You can use the bubble exercise when you are browsing

Content that is too personal, or not personal enough

People do not always want their content to be perfectly personalized to them. You might feel uncomfortable when social media platforms seem to know all these details about you, down to your clothing size, health conditions, and what political opinions you tend to agree with. It can make it feel like you are trapped in a filter bubble (a closed-off world in which the algorithm presents a selective reality tailored to you) or targeted by advertisers.

On the other hand, content that feels inaccurately personalized can also make you feel uncomfortable or not seen. For example; someone who has recently suffered a pregnancy loss may continue to receive pregnancy videos or ads — inaccurate personalization that makes them feel like their

Activity

nat do you wish your algorithm knew about you?						

"I don't think I have ADHD, but do think I have similar issues with people who have it. So seeing those videos makes me think i have ADHD."

- Interview 3-11

What do you wish your algorithm didn't know about you?

Fighting the addictive loop

Because content is personalized to you, it is even more addictive – and every second you linger on a video, the chances increase that you will see that type of content again. This is great for videos that you do want to see, but also makes it hard for you to escape videos that you can't help but watch even though you know they are bad for you.

While each individual video may not be harmful, seeing them frequently adds up to harm. Slowly, those makeup videos or height jokes may wear on your insecurities or encourage harmful behaviors.

Note: There are so many other ways algorithmic content harm can happen – this is by no means an exhaustive list! If you want to share your stories of algorithmic content harm, please email us at tiktokunwrapped@gmail.com.

CHAPTER 3: Changing your For You page

After chapter 4, perhaps you now have a better sense for how you'd like your For You page to be different. Or maybe you skipped to this section because you just had one pressing question when you picked up this book: How do I change my algorithm?

Unfortunately, there is no foolproof strategy. That's the thing about algorithmic content recommendations – sometimes the TikTok algorithm can feel like magic when it sends you the perfect relatable video, but other times it feels like the algorithm simply won't listen to you.

We're not at the point where we can tell algorithms:

"I want intuitive eating videos, but not diet videos. I don't want jokes that reinforce stereotypes about race, and I only want to see fitness videos once or twice a week."

However, there are definitely ways to influence the TikTok algorithm, even if they do not work perfectly. Many of these strategies also exist on other social media platforms like Instagram, Facebook, and Twitter. $$\rm 31$

Activity

Scroll through your feed for a bit and find 3 types of videos hat you would like to see less of. Write down what those rideos were about, and why you'd like to see less of them.									

How to see less of a type of video

Not interested: Long press on a video for a few seconds, and it will give you the option to click "Not interested". You can choose to see less videos like it, hide videos by that creator, or hide videos with that sound.

Scroll fast! Spending more time on a video, watching it to the end, or rewatching it are all signals to the algorithm that it should show you more of this topic. By scrolling through content you don't like quickly, you will likely be recommended less of it.

Reporting content to take it down: If you see content that is harmful, report it so you and others won't see it again. By long pressing on any video, you can report content in a broad range of categories.

How to see more of a type of video

Another way to build a healthier feed is to be intentional about what you want in it. Do you want to see more diverse creators or find new hobbies? Do you want deeper topics or lighthearted humor?

Search bar: Look up the topics that you actually want to see more of. Browse around and see if you can find new, interesting creators to follow.

Ask your friends for their favorite creators: Getting recommendations from friends can also be a great source for making your feed better.

Big changes to your feed

Full reset: Unfortunately, TikTok does not offer the option to allow you to fully reset your TikTok For You page. However, if the techniques above don't seem to be working well enough, one good option is to create a new account and start from scratch.

Only see content from people you follow: If your For You page is too much, try switching to the Following tab instead. This way, if you see content you don't like, you can simply unfollow the creator.

Based on what you find in your day to day audits, you can become more aware of how and when you'd like to change your algorithm. We hope this chapter can help you get there. What strategies do you currently use? Circle the ones that apply to you.









Check out @yimluckyregister on Instagram for more content on how to heal your social media.

CHAPTER 4: Learning More About Your Feed @ Home

In addition to the individualized approach we went through earlier, we're working towards a larger scale version in which you can view and reflect on a more comprehensive record of your experience with the TikTok algorithm. Though this is a rudimentary method, we hope it gives you an idea of what can be done, as well as what needs to be done, to reach the "ideal future" we will describe in the conclusion.

Right now, it requires some patience and a few technical tools of your own. We're working on a way to make it more accessible and faster; if you're interested, please reach out to us at: tiktokunwrapped@gmail.com!

Step 1 - The Data Download

First, you'll need to download your TikTok data. Check out our quick guide for doing so here:

tinyurl.com/tiktokdatadownload



Step 2: Extracting Relevant Parts

Next, you'll need to extract the relevant portion of your data that contains your viewing history. You can do so by dragging your data into our online tool below, and downloading it to your computer.

tinyurl.com/tiktokdataextraction

This lets you cut out all the other parts of your data, leaving behind only your viewing history. This should be a record of every video you've ever watched on the platform, and can be fairly large - most of our participants had files with over a hundred thousand different videos!

You can also just do this manually, if you know what a JSON file is and how to load it. To retrieve your viewing history, save the object at tiktokfilejson['Personal']['Activity']['ViewingHistory'] into its own JSON file. It should look something like this if opened in a text editor like Notepad or TextEdit.

Once you have a file that, when opened, looks like this, you're good to go onto the next step!

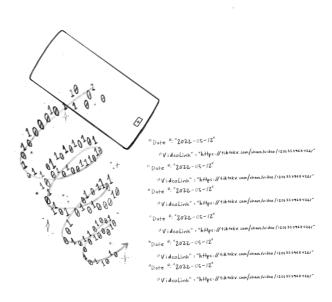
Step 3: Scraping Data

The next step involves using a program to visit each link and record some information about the videos. You will end up with a spreadsheet with the TikTok link and its sound, author, description, and hashtags. You will also end up with a spreadsheet with just the advertisements.

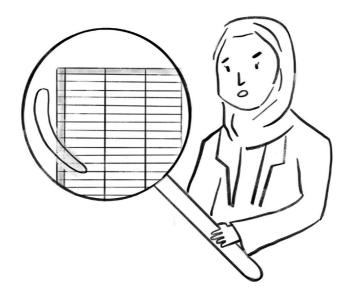
We give you the following methods:

- 1) a "slow" version, requiring minimal additional technology, which will let you scrape maybe a few hundred TikTok videos over the course of the day
- 2) a "fast" version that requires installing a few things, but can let you scrape twenty thousand videos a day

Check out both versions at tinyurl.com/tiktokdatascraper



Step 4: Interpreting your history with the algorithm



Now that you have all this data, what can you do with it?

One thing we found interesting in our interviews was simply to scroll through the data and see what you can guess from it. It was interesting for them to see unexpectedly concerning or delightful descriptions and hashtags pop out at them, and click the link to check out the video and see how it made them feel. It was also interesting to see "chains" of videos with a certain hashtag/topic, indicating when they were focusing on a specific type of content. Looking at the advertisements over time also revealed how TikTok had explicitly profiled certain interests and characteristics for advertisers.

Let us know if looking through it reveals any interesting insights for you. You can reach us at tiktokunwrapped@gmail. com with any stories to share, or if you would like to help us make this faster and more accessible!

Conclusion: What's Next?

We hope you learned a bit more about you, your TikTok feed, and how to be safer and more aware on it. But what if you could do this at scale? What if you could easily access your entire TikTok history, and see how you've been affected over months or even years?

This is the future we envision: one in which everyone is able to easily explore their history with their algorithm. Think Spotify Wrapped...but for TikTok's For You page, and showing trends over time.

You should be able to see how the algorithm has affected your interests and identity over long periods. Maybe it introduced you to rollerskate dancing, drew you into heated discussions on sexuality, or showed you a lot about your cultural identity.

Imagine being able to get a summary of types of videos you've seen so you can identify trends that, in hindsight, weren't great for your mental health or self image. In doing so, you could reflect on sources of harm, identify what you might need to avoid or work through, and acknowledge how you've grown.

We're not looking for a company to explain the technical details of algorithms to us. Our ask is simple - more tools to help us proactively make sense of our own lives life online.

Social media companies' primary business concern is to push you past any negative experiences so you keep scrolling at the algorithmic content slot machine. Some platforms will give you your view history, but one person can't look through hundreds of thousand videos to make sense of it all. If companies can use our data to increase our engagement on the platform, serve us relevant ads, and keep us in the addictive loop for hours, we should be given the tools to understand and use our data too.

We are more than customers passively consuming content. We are human beings who laugh, cry, explore, fight, grow, and live on these platforms. It goes without saying that we have the right to retrospectively understand our own lives. We have the right to look back at our algorithmic feeds and see how we've been affected. We can fight for that right by demanding that these companies facilitate that process instead of making it functionally impossible.

From the advocacy side, many legislative wins and product changes to make technology better for us - the banning of dark patterns, stronger privacy laws, certain product safety features - were won because users like you made their voices heard.

As we work towards a big picture solution, we hope you can still do some personalized, day to day algorithmic sensemaking with our guide. We hope it makes you feel more aware, and gives you back some sense of control. If you find the practice helpful or have anything you'd like to share, let us know at tiktokunwrapped@gmail.com - we'll be hard at work!

Stay safe and be well,

- The Unwrapped Team

Acknowledgements & Works Cited

Dr. Niloufar Salehi–thank you for advising our capstone. You always made time to talk through our ideas, and shared incredible related work to ground this project. Thank you to Seyi Olojo and Liza Gak for sharing their work on slow violence in targeted weight loss ads among users with histories of eating disorders, and Yim Register for sharing their work on ML education and self-advocacy; their fantastic research inspired us to create this zine. We are grateful to Dr. Rediet Abebe for helping us with earlier iterations of this project, and reminding us that sometimes the people who are the most harmed are the least able to ask for help. Thank you to Avi Zajac for advising early iterations of this project, and for sharing the bubble activity in Chapter 2.

Thank you to the folks who worked with us on class projects related to this work: Angela Liu and Oscar Chan, whose information visualizations we hope to include in a future iteration of the data toolkit; Pratik Aher, who helped us think through how to use machine learning for categorizing videos.

Below is a list of works that grounded this zine. Some of these works shaped our thinking about algorithmic auditing, sensemaking, and algorithmic harm. Other works informed the examples of algorithmic content harm that are mentioned in the zine.

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We have also been inspired by so much work in communities of practice: People's Guide to AI and other zines created by the Allied Media Conference community; and the Consentful Tech zine created by Una Lee and Dann Tolliver. z

FAQs: How do algorithms work, and other common questions

What is an algorithm?

In simple terms, algorithms are a series of steps that humans tell computers to do to accomplish a task. If you went to school in the states and remember how teachers taught us how to write about scientific processes through making a peanut butter sandwich, the idea is the same. A software engineer needs to tell the computer in computer language (code) exactly what it needs to do.

How do personalized content recommendation algorithms work?

Here are some examples of different content recommendation algorithms, and how they work:

Content-based: Based on what you consume, the algorithm will recommend similar content. For example, after you binge watch Bridgerton, Netflix might recommend you more period dramas.

Collaborative filtering: Oftentimes, the algorithm will make recommendations to you based on data about people who are similar to you. For example, if you follow Mitski on Spotify, you might see artists recommended on your homepage that other Mitski followers like to listen to.

Demographic-based: You may also be recommended content based on what the technology platform has gath-

ered or inferred about your demographic data – such as where you live or your age, gender, race, or sexuality.

What is the TikTok For You page?

"Every new interaction helps the system learn about your interests and suggest content – so the best way to curate your For You feed is to simply use and enjoy the app."

The For You page is a never-ending stream of videos that are curated based on what TikTok guesses to be your interests. You can scroll through each video, like, comment, or share.

