



TECHNOLOGY FEATURE

Filter Bubbles / AI & Human Perception / Digital Well-being / Machine Learning

You Are Not Seeing the World — You Are Seeing Your Algorithm

Before you're even completely awake, most mornings begin with you holding your phone and scrolling through it. Memes, reels, opinions, and headlines. You feel as though you are connected to the outside world. But recently, I've been wondering if it's the real world or simply your reality, a perfectly filtered version created by an algorithm from all of your taps, pauses, and skips. Despite its little size, that gap completely alters our perception of reality.

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Introduction

I'll tell you about a morning that you probably recognize. It doesn't matter whether app you use first Instagram, YouTube, or TikTok you pick your phone as soon as you wake up and open it. Things are coming at you in a matter of seconds. A video about a topic you researched last week, you watch more probably. An opinion that sounds exactly like what you already think. something you were considering purchasing. It seems strangely accurate.

It's not a coincidence. Many of us experience this when chatting casually with friends about a trip or a new phone, you suddenly click Instagram Facebook and other social media platform and there it is shown in an ads. That's exactly what we are just talking about. I once believed it to be magical. Everything began to make sense after I began researching machine learning and algorithms. Without thinking, we give these apps access to the microphone, camera and the algorithm makes advantage of it to detect signals and make connections. My friends and relatives were shocked when I told them about this. Can it actually happen? Indeed. It is happening in this era.

I know these models are amazing because I create them. However, this article does not criticize technology or social media. I and all of us utilize these platforms on a daily basis because they offer real value. I do think that everyone should be able to fully understand the workings of the engine.

"An algorithm that you understand is something you can work with. An algorithm you do not understand is something that's quietly working on you.."

Technology Overview

This is the truth about what happens each time you utilize one of these platforms. The program is keeping a really accurate, mathematical eye on things.

Every action you take turns into a data point. How long did you view a video before pausing what you entered in the search field. What time of day do you typically work out or use mobile phone. What



kind of posts prompt you to leave a comment. what type of posts you like .On which content you spend more time watch again and again All of data is captured, processed, and fed into a model that continuously learns what kind of content will attract you back with each interaction. But this is not actually the real world it is actually the algorithm or filter bubbles not the reality

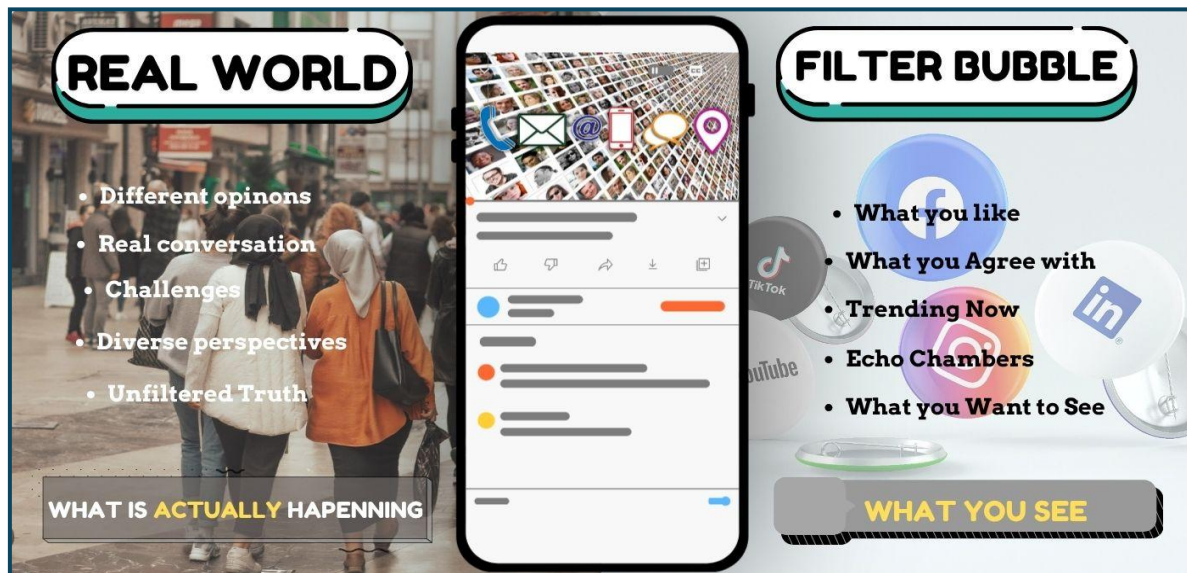


Figure 1: Two worlds side by side. The left shows reality rich, varied, and unfiltered. The right shows what the algorithm serves you a digitally curated bubble of content selected not to represent the world, but to keep your attention.

Key Findings & Impact

When these systems run exactly as designed, over months and years, you wind up inside what is called a filter bubble The internet activist Eli Pariser wrote about this idea more than a decade ago, and it has only become more relevant since

Honestly, when is the last time your feed actually showed you something that made you stop and rethink your own view? For most of us, that has become rare. The algorithm learned that challenge makes you scroll away, so it stopped. Now you are comfortable, sealed inside a feed where everyone just happens to agree with you.

Not too long ago, I experienced this personally. I had a conversation with a friend regarding a political subject, and I was truly surprised by their viewpoint because everything in my feed was stating opposite things. We got curious and showed each other our screens. There were memes on one side of my phone. There was breaking news on the other end of their phone. The same problem, the same city, entirely distinct realities. The two feeds were "personalized." That day, the filter bubble became a real experience for me rather than just an abstract idea.

And I'm most concerned by it. Every measure we use to judge these models gives excellent scores. However, individuals who are sitting in the same room in the real world are living in very different realities. The system is working just as planned, which is somewhat of an issue.



“The algorithm is not showing you the world. It is showing you a mirror. And the longer you look at it, the more you forget there is a window right beside you.”

It Felt So Natural — Until I Talked to Real People

Pakistan's population is among the world's youngest and most connected. For most of us, social media serves as more than simply entertainment; it serves as a news source, a public platform, and a place to discover what "everyone" believes. Additionally, all of it is sent to us by algorithms that prioritize engagement over accuracy..

I did not really feel this until my 5th semester, when I started properly studying machine learning. All of a sudden, I was learning how these systems were built in addition to using them. And it was very scary to look back at my own feed with that knowledge. Every article, every reel, and every popular viewpoint had confirmed my assumptions. "well, obviously any reasonable person sees it this way." The bubble did not feel like a bubble. It just felt like reality.

After that, I began really conversing with my friends in the library during breaks in between lectures and arguments, rather than in the comment sections. I was faced with viewpoints that not only differed from mine, but also clashed. I became defensive at first. Then, something changed. These were smart, decent people, and their realities had been shaped by completely different feeds. My bubble burst quietly, right there between classes.

The most scary thing is that it never seemed like a bubble since everything felt so normal. Our brains are programmed to desire to be correct, so we automatically reject anything that opposes that. This is known as confirmation bias. This defect was not created by the algorithm. It just discovered it, fed it, and refined it. Every like, every extra second of watch time, pulled the loop tighter. I believed that I was traveling the world. In reality, all I was looking at was a carefully polished image of myself.

“Confirmation bias was not produced by the algorithms. They just discovered the bias that was present in each of us and have been feeding it nonstop, for free, and around the clock.”

What's Next?

Once I started studying machine learning properly, I went looking for the actual research and honestly, it hit hard. A 2022 PNAS study found that when algorithms order feeds by engagement instead of time, the same piece of content can push people into completely opposite corners. MIT researchers found that false stories travel six times faster than true ones not because of bots, but because real people share them emotionally. And reading about the Facebook Papers made me genuinely uncomfortable because engineers inside the company already knew their algorithm was pushing users toward extreme content, and they remain silent.

Here in Pakistan it feels even more intense. Most of my friends never open a newspaper their entire news diet is WhatsApp statuses and Instagram reels and social media posts without any proof . Around



68% of young users here get almost all their news from social media alone without any research or proof they spread that news. That number stopped being a number for me when I realized I was one of them

I start experimenting with little things. To be honest, during the first few days after I changed my feed to chronological order, I felt strange. I actively followed a few individuals whose opinions I don't share and I do not agree with. Before clicking "share," I forced myself to finish an article. Did everything get fixed? No. However, it made me realize that I am more than just a passive recipient of content. I have the ability to select what I want to look at.

Go farther and participate in discussions regarding platform policy if you work in technology or are studying it like I am. Too many policymakers who draft these laws lack a basic understanding of the technology. Even if you're not, keep in mind that a carefully chosen feed isn't everything. It is the algorithm doing its job. Compared to what your phone has learnt to display, the actual world is messier, more difficult, and far more engaging.

About the Author

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