COMPUTER ALGORITHMS AND THE CONTENT PEOPLE SEE ON SOCIAL MEDIA

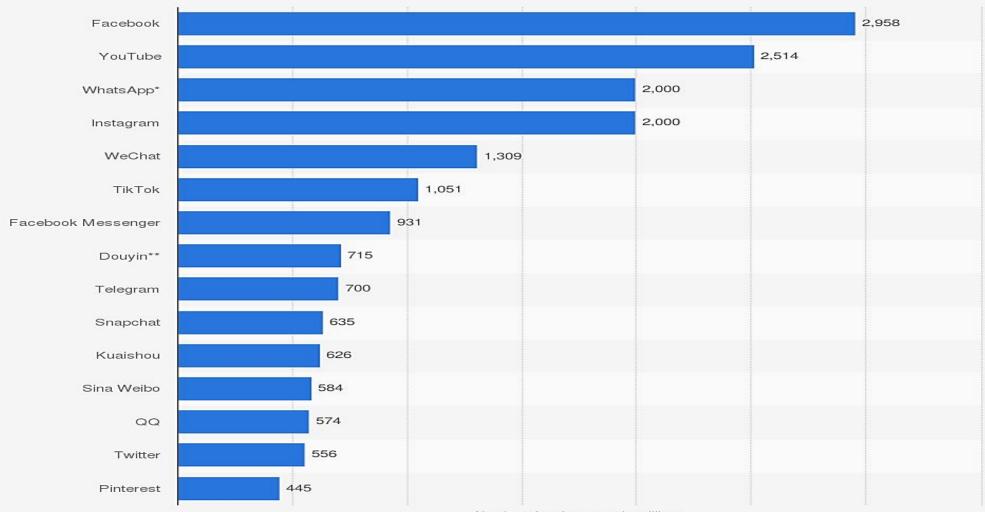
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WHY SOCIAL MEDIA?

- Having a social media strategy has become an absolute necessity in marketing and advertising. According to Pew Research, 72 percent of adults are actively using some type of social media.
- This surge is continuing to grow throughout generations and cultures. Younger adults, expectedly, have higher activity levels, but social media use among older adults is also increasing. This shift has not only created a new platform to connect with and attract clients but it's also created an abundance of opportunity.

Most popular social networks worldwide as of January 2023, ranked by number of monthly active users (in millions)



Number of active users in millions

Sources We Are Social; DataReportal; Meltwater © Statista 2023 Additional Information:

Worldwide; DataReportal; January 2023; social networks and messenger/chat app/voip included; figures for TikTok does r

- The Social media algorithms are the method that determine which posts your audience will see whenever they scroll through their feed -- and in what order.
- Facebook states that, rather than using a single algorithm, it integrates multiple processes to score posts and supply the most valuable content to its users.
- People are becoming increasingly reliant on online sociotechnical systems that employ algorithmic curation to organize, select and present information.
 We wanted to understand how individuals make sense of the influence of algorithms, and how awareness of algorithmic curation may impact their interaction with these systems.

The goal is to study was to elicit users' intuitive theories about the composition of their Facebook News Feeds so that we can begin to understand the complex interdependencies between users and algorithms that affect system behavior. Users' beliefs about how the system works are an essential component of a feedback loop that can cause systems to behave in unexpected or undesirable ways. The output of the News Feed algorithm (the posts displayed to users) affects the inputs to that same algorithm (interactions with those posts, and the characteristics of new posts that are subsequently created). Understanding users' beliefs is an essential first step toward identifying the effects of the feedback loop and potentially designing algorithms that are better at taking these effects into account.

Algorithms in Social Media focused on two main branched:

- >Authentication and Security.
- **Clustering**

There is more to social media than just keeping in touch with family and friends. It's a way to stay up on current events. The term "social media algorithms" refers to the algorithms used to provide material to your social media newsfeed.

How Social Media Algorithms Work

THESE MAIN FACTORS DETERMINE WHAT YOU'LL SEE IN YOUR FEED



Interest

Social Media Platform will determine which content matters to you the most by anonymously analyzing your past behaviors on similar posts and the actual content of the post.



Recency

Social media will show the most recent post that was shared. With prioritization for timely posts over weeks-old ones.



Relationship

People are more likely to accept a shared link from someone whom they've interacted with in the past on social media.



Frequency

The more often you log in, the more it will show you the best posts since your last visit.



Following

If you follow too many people, your reader will have more options to choose from when selecting the feed that it should be displaying.



Usage

How long you spend on your social media determines how deep your connection is to others' content.







- What are the core algorithmic values of the Facebook News Feed?
- How are those algorithmic values ranked in order to select stories for the Facebook News Feed?
- How do these algorithmic values differ from traditional news values?





INVENTORY

(what's out there)



SIGNALS

(what's happening; sharing, commenting, reacting)



PREDICTIONS

(what's going to happen)



OVERALL SCORE

(all of it together)

The KEY: Engagement is KING







INSTAGRAM'S ALGORITHM:



Liking or commenting

TIMING

Is it recent?

RELATIONSHIP

Regular Interaction

WHO

- Friends
- Celebrities
- Brands
- Companies
- · Show me more feature
- Why am I seeing this post feature

POPULARITY

- Reactions
- Likes
- Shares
- Comments





MEANINGFUL INTERACTIONS

Who a user interacts with, the type of media, popularity and timeliness (recency) are all ranking signals within the algorithm.





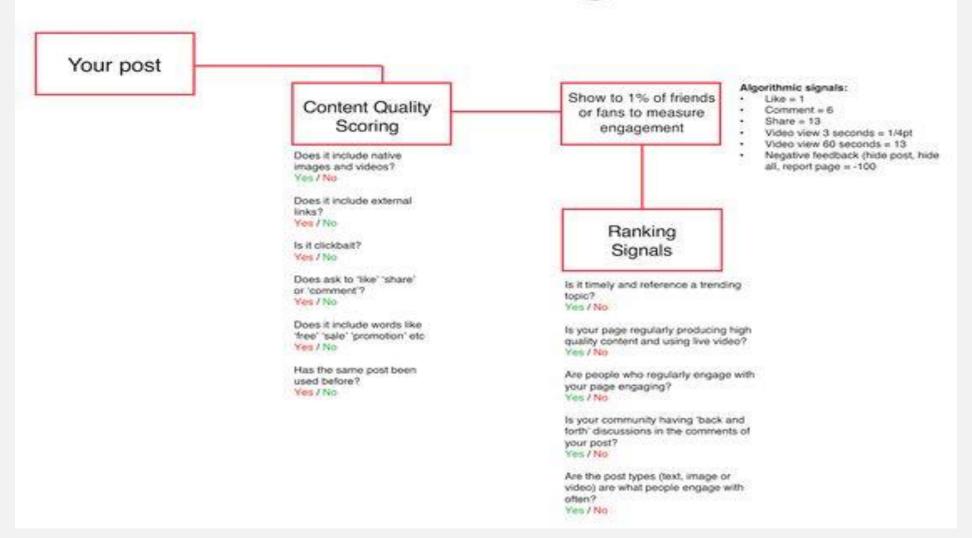
TYPE

- Videos
- Links
- Facebook Live
- Images

TIMELINESS

- New Posts feature
- Duration of engagement
- Time of day

The Facebook algorithm



How the Facebook algorithm works

While the earliest algorithm prioritized posts that got the most Likes, the algorithm we see today is a lot more sophisticated. Specifically, it considers four factors to decide which posts to show to which user.

1. Inventory

First, Facebook takes inventory of all the content that could show up on your Feed. This includes posts coming from people you're friends with. It also includes content from the Pages you follow and the groups you've joined.

2. Signals

The algorithm then assesses the relevance of each piece of content based on thousands of signals. This includes signals such as who posted it and how often you interact with them. It also looks at when they published the post and what time it is for you.

Facebook also considers signals such as the <u>type of content</u> and how you've interacted with similar posts. In other words, it tries to assess relevance by understanding the nature of the content and your behavior.

3. Predictions

Next, it uses the signals above to make predictions about what you want to see.

The algorithm will analyze past behavior to try and understand how likely you are

to engage with a piece of content.

Let's say you regularly interact with a certain friend's post. The Facebook algorithm will take that as a sign that you like seeing content coming from that friend.

Similarly, let's say you regularly watch and engage with videos from a Page about eco-friendly living. It will understand that you like to watch videos from that Page and you're interested in this topic.

4. Relevancy scoring

Finally, the algorithm will score each content depending on how relevant it is to you. The higher the score is, the more likely it is to show up in your Feed.

Facebook algorithm update timeline

Fast forward to the present day and the Facebook algorithm is still evolving. Below is a quick snapshot of some of the changes Facebook has made recently.

More personalized experiences

Personalization and relevant content remain a top priority of the Facebook algorithm. In 2019, Facebook announced the <u>widespread use of surveys</u>. This helped to gather feedback from users to ensure they were seeing relevant content.

The update evolved Facebook's algorithm to become more of what we see today. It began to prioritize relevancy when deciding what posts to show to users. Combined with the surveys and the relevancy signals, this helped to better connect users with the posts, Pages and people they cared about.



The Algorithm

The first thing to get a grasp on is the <u>News Feed algorithm</u> and how it amplifies content in the app. To that, there are three main elements:

- •Where the Post Comes From Regularly liking and commenting on posts from certain pages will show you more posts from said pages. Profiles and pages you regularly interact with get the same effect.
- •When it was Posted Timelines remain a big factor in Facebook's News Feeds. Initial post responses have a major role in determining reach. To capitalize, you need to grab the attention of the initial engagers, which requires you to know when your audience is online.
- •How Likely It'll Drive Engagement Facebook's algorithm also works to determine each user's engagement habits, optimizing itself to best lean into their specific behaviors. Facebook will also estimate how long it thinks users might watch a video or how long they might engage, depending on the post type (i.e article, poll, etc.).