

# 7.6: Recommendation Algorithms on Social Media Platforms

**Recommendation algorithms**, built into social media media platforms, Internet search tools, e-commerce sites, and other digital applications, influence people's behaviors and choices on a daily basis in widespread and often unnoticed ways.

**Democracy For All:**

**Topic 7, Standard 4.1**

# **Recommendation Algorithms**

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While algorithms are simply "instructions for solving a problem or completing a task" ([Rainie & Anderson, 2017](#), para. 2), they can be used to shape thinking and behavior by doing things like suggesting "products, services, and information to users based on analysis of data" ([Voice Tech Podcast](#), Medium, June 25, 2019, para. 2). For example, social media platforms use recommendation algorithms to determine what you should see on their sites (e.g., posts, sponsored ads, people) based on data about what you have viewed, bought, or done before. Watch "[How YouTube's Algorithms Are Fooling You](#)" from Above the Noise to learn more.



[Watch on YouTube https://edtechbooks.org/-ZWwP](https://edtechbooks.org/-ZWwP)

From a civics and government perspective, algorithms direct the flow of political information and news to readers and viewers. They are connected directly to the spread of misinformation and disinformation online. Yet as data scientist Noah Giansiracusa argues in his book *How Algorithms Create and Prevent Fake News*, this technology not only allows for the creating and disseminating of false and misleading content, but it has the potential to "save us from fake news by automatically detecting and labeling assertions and true or false" (2021, p. xi, para. 1).

Looking into the emerging future, systems that have algorithms make everyday life decisions are being developed. Would you prefer having a life decision made for you by another person or a computer algorithm? How do you think most people would respond? The answer

may surprise you...

In a survey, 4,000 people were asked whether they wanted a human or an algorithm to decide for them if they would win a coffee gift card, get a bank loan, join a clinical trial for a promising medical treatment, or face a sizable money fine in civil court. In just over half of the situations, people preferred an algorithm to a human - when they believed the decision would be made quicker, was cheaper, and would be more accurate (Bambauer & Risch, "[Worse Than Human?](#)" Arizona State Law Review 2021).

On social media and e-commerce platforms, the goal of recommendation algorithms is to keep you on the site, app, or platform as long as possible to make more money. Advocates hail the convenience of personalized digital experiences, while critics worry that users experience only a narrow range of suggestions and choices.

In the following activities, you will critically examine YouTube's recommendation algorithm and then design your own. You can also learn more at [Defining Fake News and Finding Reliable Information](#) in our *Building Democracy for All* eBook.

## **Activity 1: Evaluate YouTube's Recommendation Algorithm**

- Login to Gmail and then go to [YouTube.com](#).
- Closely examine the suggested videos on your YouTube homepage.
  - Do the recommended videos seem to accurately represent your tastes?
  - Does anything seem out of place?
- Then, open up an incognito or private browser (where you are not logged into Gmail), go to YouTube, and examine the suggested videos on the homepage.

- How are the videos different from the ones suggested when you were logged into Gmail?
- What surprises you about the differences or similarities between the two sets of recommended videos?
- What data do you think YouTube is using from you to determine the suggested videos for your homepage when you are logged into Gmail?
- Next, click on a video and closely examine the list of "recommended" videos on the right-hand side of the screen.
  - Why do you think these videos were suggested?
- Read the following articles:
  - [Making of a YouTube Radical](#), *The New York Times*, June 8, 2019
  - [YouTube's Algorithms Might Radicalise People - But the Real Problem is We've No Idea How They Work](#), *The Conversation*, January 21, 2020
- Finally, create a social media campaign to respond to the following prompt: **How might recommendation algorithms influence the news that people get from social media, Internet search tools (e.g., Google search), and other digital applications?**
  - The social media campaign should include at least 2 videos (e.g., YouTube, Snapchat, TikTok), 5 example posts, and 3 images (e.g., memes, graphics, infographics) designed by you.
  - Here is a [social media campaign example](#) created by Justin Lo, Daniel Mulno, and David Warde and here is a [Twitter campaign example](#) by Sara Shea.
  - Consider using the [Made to Stick principles](#) or [TED Talk presentation techniques](#) to increase the appeal of your social media campaign.

## **Designing for Learning: Student-Created Activity Example**

[Evaluate YouTube's Recommendation Algorithm](#) & [Why I Don't Recommend: Trusting Recommendation Algorithms!](#) by Ryan Shea

## **Activity 2: Design a News Recommendation Algorithm**

- Explore [Algorithms for Kids](#) or [Initiation to Algorithmics with Scratch](#) (advanced)
- Then, **design a simple algorithm in Scratch** in which a user can input data about themselves (e.g., interests, political leaning, location) and get a recommended News site or article to explore.

## **Designing for Learning: Student-Created Activity Example**

[The Algorithm within Recommendation Algorithms](#) by Ryan Shea

## **Additional Resources**

- [YouTube Algorithm: The Constantly Updated Guide to YouTube's Updates & Changes](#)
- [Everything you need to know about social media algorithms](#)
- [The Age of Algorithmic Anxiety](#)

# Connecting to the Building Democracy for All eBook

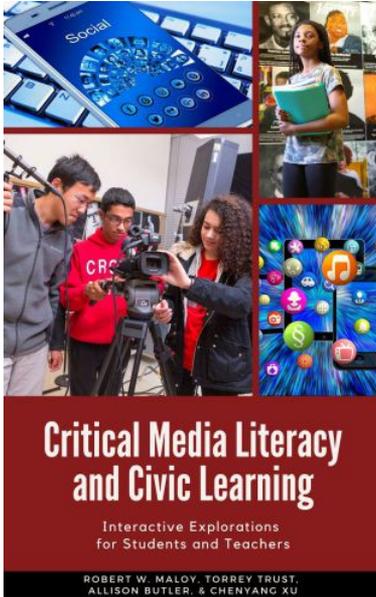
[Building Democracy for All: Social Media, Digital News, and the Spread of Misinformation](#)

## Connecting to the Standards

- [Massachusetts Civics & Government Standards](#)
  - *Evaluate the benefits and challenges of digital news and social media to a democratic society. (Massachusetts Curriculum Framework for History and Social Studies) [8.T7.4]*
- [ISTE Standards](#)
  - Digital Citizen
    - 2d. Students manage their personal data to maintain digital privacy and security and are aware of data-collection technology used to track their navigation online.
  - Knowledge Constructor
    - 3b: Students evaluate the accuracy, perspective, credibility and relevance of information, media, data, or other resources.
    - 3d: Students build knowledge by actively exploring real-world issues and problems, developing ideas and theories and pursuing answers and solutions.
  - Creative Communicator
    - 6a: Students choose the appropriate platforms and tools for meeting the desired objectives of their creation or communication.
    - 6b: Students create original works or responsibly repurpose or remix digital resources into new creations.
    - 6d: Students publish or present content that

customizes the message and medium for the intended audiences.

- [DLCS Standards](#)
  - Interpersonal and Societal Impact (CAS.c)
  - Digital Tools (DTC.a)
  - Collaboration and Communication (DTC.b)
  - Research (DTC.c)
  - Human and Computer Partnerships (CS.b)
- [English Language Arts > History/Social Studies Common Core Standards](#)
  - CCSS.ELA-LITERACY.RH.6-8.7
  - CCSS.ELA-LITERACY.RH.9-10.7
  - CCSS.ELA-LITERACY.RH.11-12.97



Maloy, R. W., Trust, T., , & Xu, C. (2021). *Critical Media Literacy and Civic Learning*. EdTech Books.  
<https://edtechbooks.org/mediaandciviclearning>